European Commission

The European Higher Education Area in 2020

Bologna Process Implementation Report

Education, Audiovisual and Culture Executive Agency

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FOREWORD

The European Higher Education Area (EHEA), established by 48 countries, has evolved over 20 years and has now arrived at a crucial juncture, at the start of a new decade in extraordinary times. No one could have foreseen the unprecedented events of 2020. The global health pandemic affects everyone, and is having a huge impact not only on our health, but also on how we teach, learn and do research.

It is in such critical times that European cooperation on higher education can demonstrate its value for our societies and our people. This crisis has shown us that we are so much stronger together when we share our ideas and our knowledge and when we work together for a healthier, greener, more digital and more resilient society. However, this requires a higher level of shared ambition and commitment.

This edition of the Bologna Process Implementation Report charts important progress made over two decades when it comes to mobility, quality assurance and recognition, but also points to the work needed in the future. The report shows how European higher education systems advanced with concerted national reforms. This in itself is a remarkable achievement. Nevertheless, the process was not all plain sailing. Some countries moved faster than others, and some embedded reforms more deeply. As a result of reaching different levels of implementation, the foundations of the European Higher Education Area are not yet stable enough. Students, researchers and higher education institutions may still face unnecessary obstacles in their work together.

As a way forward, the best way to strengthen trust is to practise trust. Implementation works better when higher education systems take account of the experience of other countries. This can be seen through the peer support activities put in place following the last Bologna Ministerial Conference in Paris, supported by the Erasmus+ programme, which are now bearing fruit to enhance the implementation of the Bologna key commitments.

We now need to go further, and set new ambitious priorities for action at the next Bologna Ministerial Conference in November 2020, to ensure that European cooperation on higher education fulfils its full potential.

The recent Commission Communications on the European Education Area, the Digital Education Action Plan and the European Research Area provide a vision to work towards a European Knowledge Area, encompassing universities' missions for higher education, research, innovation and service to society. The proposed initiatives will enhance, through EU policies and programmes, an inclusive, innovative, inter-connected and digitally prepared higher education system as a key contributor to the European Green Deal and the United Nations' Sustainable Development goals.

Inclusion of students from disadvantaged backgrounds must become a reality and not merely a common aspiration, as all our citizens must be able to develop their full potential if our countries are to fulfil theirs. Reinforcing the role of higher education in lifelong learning, including through the provision of micro-credentials, will be key to recovery and contributing to a resilient society. Student-centred learning remains under-developed in many parts of the continent; the European Universities alliances, supported by the Erasmus+ and Horizon Europe programmes, will act as role models, through more flexible and modular ways of learning. We also need to harness the potential of digital technologies to enhance the quality of learning and teaching. The new Erasmus+ Programme 2021-2027 will provide concrete support to the broader higher education community to reach these objectives, and to the European Student Card Initiative that will facilitate the exchange of student and institutional data in full respect of privacy and security.

I want this European Knowledge Area to act as a motor for the Bologna Process, inspiring and supporting other member countries of the European Higher Education Area to benefit from a similar path.

Mariya Gabriel

Commissioner for Innovation, Research,
Culture, Education and Youth

CONTENTS

TABLE OF FIGURES

EXECUTIVE SUMMARY

The history of the European Higher Education Area (EHEA), which this report aims to capture – at least in part – is one of extraordinary change. Following the signature of the Bologna Declaration in 1999, a first decade of preparation for the EHEA saw dramatic changes in higher education degree systems, quality assurance and internationalisation. These changes set higher education systems on a path in the same direction, but were contested and even resisted in many parts of Europe. This decade was followed by a period that focused on implementation processes that continues to the present. Despite the complexity of a process involving 48 countries, there have been many positive outcomes as the EHEA has transformed into a real rather than an imagined phenomenon. Its evolution in the future depends on the work that is undertaken now.

Some basic facts are worth noting. Countries have continued to join the EHEA throughout the two decades, and student numbers have grown significantly in the vast majority of countries. Today, total student numbers have reached more than 38 million. Of these, the majority of students (56.4 %) are enrolled in first-cycle, bachelor-type study programmes that were viewed sceptically by many at the start of the Bologna Process.

Although there are considerable variations between countries, overall public spending on tertiary education relative to GDP has a median value of 0.95 %. In most countries, this figure has either been stable or has decreased during the two decades. Thus, the increase in student demand has not been matched by expenditure on higher education.

Three-cycle degree programmes

Unprecedented achievements have been made in developing convergent degree structures. The first decade saw rapid and convergent reforms in national degree systems. However, in many national systems, the rationale behind the Bologna reforms was often not communicated clearly. This led to difficulties in implementation that were to persist in the following years.

There is no single model of degree programmes. Yet, in the majority of the EHEA countries, the most common structures are those of 180 ECTS workload programmes for the first cycle and 120 ECTS credits for the second cycle. The most common combined (first and second cycle) workload corresponds to 300 ECTS credits – a model that is found in around three-quarters of all EHEA countries. In the eastern part of the EHEA, the most common workload is often more substantial, corresponding to 360 ECTS credits. This is mainly due to a higher workload for first-cycle programmes.

Around half of all EHEA systems offer short-cycle higher education programmes. In most EHEA systems, integrated/long programmes which lead directly to a second cycle degree continue to exist for particular disciplines such as medicine. Some EHEA systems also offer programmes outside the Bologna-degree structure, which cannot easily be associated with the three cycle-degree-structure. This might lead to difficulties in terms of their compatibility with the main Bologna-style programmes. On the other hand, they seem to respond to specific needs, in particular related to further professional development and lifelong learning. The key issue is how to ensure and optimise cross-country readability of this type of provision. The allocation of ECTS credits and positioning in national qualifications frameworks offer the best solutions.

All EHEA countries but Belarus have introduced the Diploma Supplement, and most comply with the requirements to issue automatically to all first- and second-cycle graduates, in a widely spoken European language and free of charge. Thirty systems have established their national qualifications framework for higher education and self-certified them to the Qualifications Framework for the European Higher Education Area (QF-EHEA).

Work that has been initiated on implementing key commitments, including degree structures, gives hope that the spirit of co-operative development will continue. Student-centred learning remains at the heart of these activities. The objective is for students to be able to plan their learning paths on the basis of clear information in order to acquire the knowledge, skills and competences that meet both their personal goals and societal needs.

Quality Assurance

At the start of the Bologna Process, few higher education systems had a recognisable quality assurance system. The rise of quality assurance in higher education has therefore been one of the most remarkable and transformative developments within the sector in the last two decades. Quality assurance systems have become a key driver of change in European higher education institutions. After two decades of Bologna reform, almost all countries now have internal and external quality assurance systems in place on a system-wide scale.

The agreement on common standards and guidelines for quality assurance in the EHEA (ESG) has also been a major support for the development of trust.

EHEA higher education systems now provide a reliable and systematic basis for trust and recognition. Yet, while the conditions for trust have been established, the practice of trust is still to be improved. While the EHEA has grown closer together over last 20 years, the challenge remains for trust to extend throughout the whole EHEA.

Recognition

EHEA cooperation has focused for many years on improving and simplifying recognition practices. European higher education policy has worked towards easier and fairer recognition on the basis of the Lisbon Recognition Convention – protecting the value of learning outcomes and ensuring that qualifications are easily understood and communicated. However, despite the overarching legal framework established by the Lisbon Recognition Convention, as well as the structures and ongoing policy and expert dialogues, there are still obstacles to overcome.

With regard to implementation of the Lisbon Recognition Convention, there is no doubt that many countries have not taken action to ensure that all aspects of the convention are properly covered in national legislation. For example, article VII – requiring countries to implement procedures designed to assess whether refugees, displaced persons and persons in a refugee like situation fulfil the relevant requirements for access to higher education – is not a legal requirement in a majority of EHEA countries.

With regard to the long-term priority objective of achieving system level or ‘automatic recognition’, countries have been keen to stress that they are making progress. Slightly fewer than half of the EHEA systems currently recognise qualifications of some EHEA countries automatically, and ten do so for all EHEA countries. Automatic recognition nevertheless remains a confusing concept for many in the sector, and improvements are still needed to allow qualitied learners automatic access to higher education in other countries.

Social dimension

The social dimension of the Bologna Process has been slow to develop as a policy area. The main objective – that the student body entering, participating in and completing higher education should reflect the diversity of the populations – is far from being reached. Even considering the aspirational nature of the objective, the small numbers of countries that have developed and implemented a coherent set of measures to address matters relevant to the social dimension illustrates only stuttering and uneven progress at best.

The participation of under-represented groups remains low across the EHEA, and the background of parents is still a very strong predictor of whether children participate in higher education. In most countries, migrants or foreign-born students are also much less likely to participate in higher education compared to native-born students. The number of mature students has increased quite significantly since 2000, suggesting that the traditional pattern of going directly from secondary to higher education may be less prevalent today than in the past.

In nearly all countries, women are in the majority among higher education entrants. However, the situation varies significantly depending on the study field.

Perhaps the most significant challenge, which extends beyond the remit of the Bologna Follow-Up Group, will be to establish successful linkages with other areas of policy – particularly with the integration of previous stages of the education system – in order to create truly effective social dimension strategy.

Mobility and Internationalisation

The Bologna Process has not only been a catalyst for structural reforms and the development of quality assurance systems, but has also stimulated greater mobility and internationalisation. Despite problems in measuring accurately the different forms of student mobility, it is clear that international student mobility has grown considerably during the past two decades.

Nevertheless, the target of 20 % of graduates experiencing mobility by 2020 has not been met. The setting of the 20 % mobility target did nevertheless create new momentum to stimulate international student mobility by repositioning it at the top of the ministerial agenda. It also gave a significant push to improving the international data collections on mobility in general, and on credit mobility in particular. Attention to recognition practice, ECTS, Diploma Supplement and portability of student support are also likely to have facilitated both credit and degree mobility. Moreover, the introduction of a common three-cycle degree system has made it much easier to complete one cycle in one country and then study another cycle in a different country.

Nowadays the majority of degree-mobile students in the EHEA – both from outside and from within the EHEA – are studying at master level. The Bologna three-cycle system also underpins the success of joint international master programmes such as those developed within the Erasmus Mundus programme.

The future

Few working in the higher education sector would contest the proposition that working with a community of policy-makers and stakeholders across national boundaries represents the best chance for Europe and the rest of the world to advance. The Bologna Process has enhanced cross border trust through countries, institutions and stakeholders working together to face common challenges.

This report and others that have preceded it during the process have demonstrated that it has also supported a strong dynamic for change.

Solutions for common challenges in EHEA countries lie in strengthening political support and increased ownership by all stakeholders. Whatever the specific areas for action in the coming years, the deepening of this trust-based cooperation provides the greatest hope for the work of the next decade.

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, which was signed by the higher education ministers of France, Germany, Italy and the United Kingdom, and called for a 'Europe of knowledge' paving the way for a genuine European Higher Education Area (EHEA). These ministerial events and declarations set in motion an intergovernmental process based on European cooperation for more convergence of higher education systems in Europe 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 2018. 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 and sustainable development were added as explicit priorities in the Yerevan Communiqué, while digitalisation was recognised as an issue for attention in the Paris Communiqué in 2018.

The Paris Communiqué is also noteworthy for identifying academic freedom and integrity, institutional autonomy, participation of students and staff in higher education governance, and public responsibility for and of higher education as the fundamental values of the EHEA. This text adopted by EHEA Ministers stresses the need to protect and promote these fundamental values in the future. It also identified three key commitments that are essential for the EHEA to function – three-cycle degree structure reform, quality assurance in line with the standards and guidelines for quality assurance in the EHEA (ESG) and recognition of qualifications in compliance with the Lisbon Recognition Convention. It established a structured peer support approach based on solidarity, cooperation and mutual learning to speed up progress in fulfilling these key commitments. The Paris Communiqué also saw short-cycle higher education established as a stand-alone qualification level within the Qualifications Framework for the EHEA (QF-EHEA). The objective is to ensure better recognition of short-cycle higher education in Europe.

The Bologna Process: from Sorbonne, 1998 to Paris, 2018

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	Target: 20 % graduate mobility by 2020	Explore path to automatic recognition of academic qualifications		Student digital data exchange
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	Short cycle as a stand-alone qualification level Revised Diploma Supplement
		Social dimension	Equal access	Reinforcement of the social dimension	National action plans	National targets for the social dimension to be measured by 2020	Widening access and completion rates	Social inclusion	Inclusion of under-represented and vulnerable groups
		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	Combine academic and work-based learning
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	Ensure compliance with ESG 2015 Promote European Approach for QA of joint programmes
Europe of Knowledge	European dimensions in higher education	Attractiveness of the EHEA	Links between higher education and research areas	International coope-ration 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		Develop synergies between EHEA – ERA
								Learning and Teaching: Relevance and quality	Innovation and Inclusion in Leaning and Teaching Digitalisation and digital skills
								Sustainable Development	Support to UNSDGs
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**	**2018** **Paris Communiqué**

Report outline

This 2020 Bologna Process Implementation report has been prepared for the EHEA Ministerial Conference in Rome, Italy, on 19-20 November 2020, on the basis of the mandate from the Paris Communiqué:

'For our 2020 conference, we mandate the BFUG to develop a Bologna Process Implementation Report assessing the main developments in the EHEA since the Bologna Process began, including to what extent we have fulfilled the mobility target agreed in Leuven/Louvain-la-Neuve in 2009'.

The report aims to provide an overview of implementation of the Bologna Process commitments from various perspectives using data collected in the first half of 2019, and with 2018/19 as the most recent reference year. Three main principles have guided its development:

1) Focus on main developments and trends in the European Higher Education Area as a whole.

2) Make use of existing data, and limit collecting and analysing new data as far as possible.

3) Embed indicators within a narrative that discusses key changes over time.

In line with these principles, the report combines three types of information: quantitative data, (Eurostat and a specific data collection for non-European Statistical System countries); qualitative data – provided by the BFUG; and narrative texts on the main policy developments throughout the Bologna period. As with previous editions, 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. Close collaboration was also established with all groups established by the BFUG.

The report provides statistical data, qualitative information as well as overview texts exploring the covers all main aspects of higher education reforms aiming at a well-functioning EHEA. It is a successor to the three Bologna Process Implementation Reports (2012, 2015 and 2018). For the first time, on the basis of the Paris mandate by EHEA Ministers, it includes reflective introductory texts assessing long-term developments in key thematic areas. These texts also reflect the stakeholder involvement at the heart of the process, as main contributors include the European Quality Assurance Register for higher education (EQAR) (Chapter 3), Eurostudent (Chapter 4) and the Academic Cooperation Association (ACA) (Chapter 5).

Qualitative information was gathered through a questionnaire addressed to BFUG members. These were submitted, after consultation with all relevant national actors, by the Bologna representatives in all 48 countries between February and June 2019. 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.

Qualitative data is based mainly on official evidence-based 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.

Among the indicators presented are 13 so-called scorecard indicators that are designed to track country progress in implementing Bologna Process policy commitments. These scorecard indicators were already used in the 2018 edition of the Bologna Process Implementation Report.

With regard to statistical data, the European Union's Education, Audiovisual and Culture Executive Agency (EACEA), working through Agilis SA, Greece, undertook a specific data collection in 2019 for the EHEA countries that are not part of regular Eurostat data gathering exercises. Data was collected for several reference years from 1999/2000 to 2017. Agilis also provided advice on presentation of statistical data, as well as draft analysis of the figures.

The report is divided into five thematic chapters, with a structure that aims to maintain coherence with the previous Bologna Process Implementation Reports, and to reflect the main political priorities of the EHEA. Chapter 6 considers future developments for policy-making for the EHEA over the next decade.

CHAPTER 1: EUROPEAN HIGHER EDUCATION AREA KEY DATA

Chapter outline

This chapter provides information on the framework conditions for higher education in the different countries of the EHEA. A flavour of how these conditions vary dramatically and have evolved during the lifetime of the Bologna Process across the EHEA is provided through statistical data on key features of European higher education. The topics covered are: changes in student and staff numbers; changes to the number of higher education institutions; evolution of public funding in higher education.

Technical note

Data has been produced for reference years between 2000 and 2017 (the most recent year with statistical data available). It is important to note that ISCED 2011 (International Standard Classification of Education 2011) was introduced in the middle of the analysed time period, enabling greater clarity for many statistical representations. Some of the changes perceived in student enrolment may be due to the different classification of students before and after 2011, but this is unlikely to affect the overall trend or direction of change for particular countries.

The 2018 Paris Communiqué

The Paris Communiqué refers to the commitment made that the student body entering and graduating from European higher education institutions should reflect the diversity of Europe's populations.

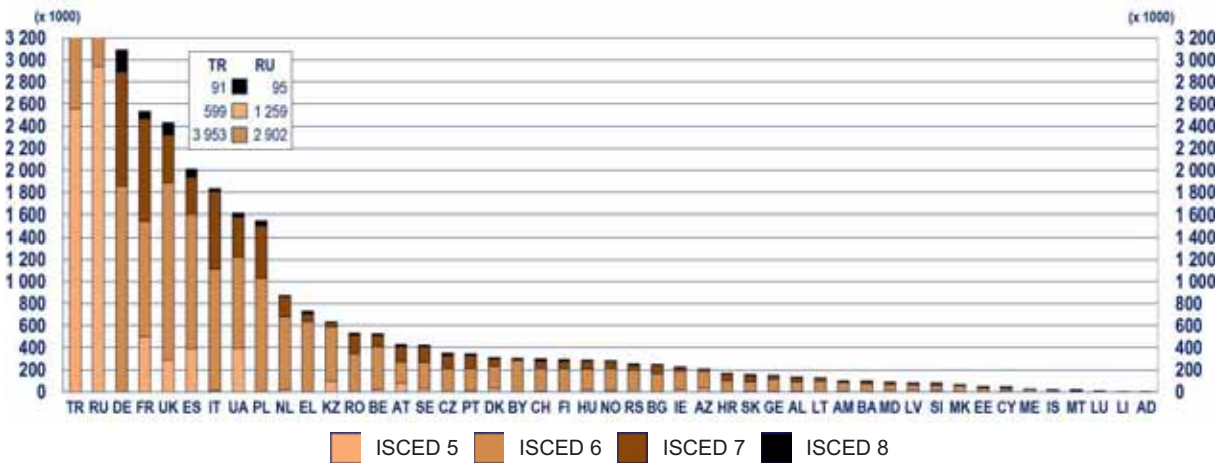
Key messages

- The EHEA has seen a continuous rise of total student numbers since its inception, reaching more than 38 million students in 2016/17. This is an increase of more than 18 million students compared to 2000. Turkey, Russia, Germany, France and the United Kingdom now account for almost 60 % of the EHEA student population.
- There has been an increase in numbers of academic staff in more than half of the 40 countries for which data are available. About 45 % of the academic staff is female.
- In 2016, public spending on tertiary education relative to GDP varies from 0.3 % to 2.1 % with a median value of 0.95 %.

1.1. Student population

Figure 1.1 shows the number of students enrolled in tertiary education in 2017, and the share in each ISCED level between ISCED 5 and ISCED 8. ISCED 5 corresponds to short-cycle programmes, ISCED 6 to first-cycle programmes (bachelor programme or equivalent), ISCED 7 to second-cycle (master programme or equivalent) and ISCED 8 to third-cycle programmes (Doctoral or equivalent).

Figure 1.1: Number of students enrolled in tertiary education by ISCED level, 2016/17



(x 1 000)	TR	RU	DE	FR	UK	ES	IT	UA	PL	NL	EL	KZ	RO	BE	AT	SE
ISCED 5	2 556	2 941	0.3	501.3	287.5	392.5	11.0	398.7	0.2	23.7	0.0	93.8	0.0	23.5	76.0	24.7
ISCED 6	3 953	2 902	1 860	1 042	1 597	1 212	1 102	823.1	1 027	659.6	634.0	496.2	347.9	384.2	196.0	240.7
ISCED 7	598.5	1 259	1 033	922.9	434.9	334.5	696.2	365.8	479.6	176.9	72.3	38.4	164.5	102.1	135.6	140.7
ISCED 8	91.3	94.6	198.3	66.9	112.3	71.5	27.7	27.1	43.2	15.1	28.7	3.6	19.2	17.0	22.9	20.3
	CZ	PT	DK	BY	CH	FI	HU	NO	RS	BG	IE	AZ	HR	SK	GE	AL
ISCED 5	1.0	11.0	35.6	0.0	4.1	0.0	13.3	8.4	0.0	0.0	19.5	30.3	0.1	2.8	4.8	2.8
ISCED 6	206.1	200.6	196.0	284.0	203.3	211.1	187.3	200.5	197.9	165.6	166.9	158.8	99.1	85.3	108.7	84.9
ISCED 7	122.3	115.8	71.2	15.0	68.4	65.6	79.0	67.0	46.8	77.6	30.2	13.6	62.7	60.5	30.3	41.9
ISCED 8	23.5	19.6	9.7	5.1	24.8	18.9	7.4	8.2	11.5	6.7	8.4	2.7	3.3	7.4	4.0	2.2
	LT	AM	BA	MD	LV	SI	MK	EE	CY	ME	IS	MT	LU	LI	AD	
ISCED 5	0.0	5.7	0.0	15.7	14.6	11.0	0.0	0.0	4.5	0.0	0.6	1.7	0.8	0.0	0.0	
ISCED 6	95.5	78.7	74.4	50.3	48.3	44.1	56.9	30.3	21.6	22.5	12.5	8.4	3.2	0.4	0.6	
ISCED 7	27.6	11.8	19.9	19.4	17.7	21.9	2.8	14.9	17.8	1.3	4.4	4.2	2.5	0.3	0.0	
ISCED 8	2.7	1.1	0.9	2.0	2.3	2.6	0.4	2.6	1.3	0.1	0.5	0.1	0.6	0.1	0.0	

NB: >1000 (x 1000) no decimals; <1000 (x 1000): 1 decimal

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

Notes:

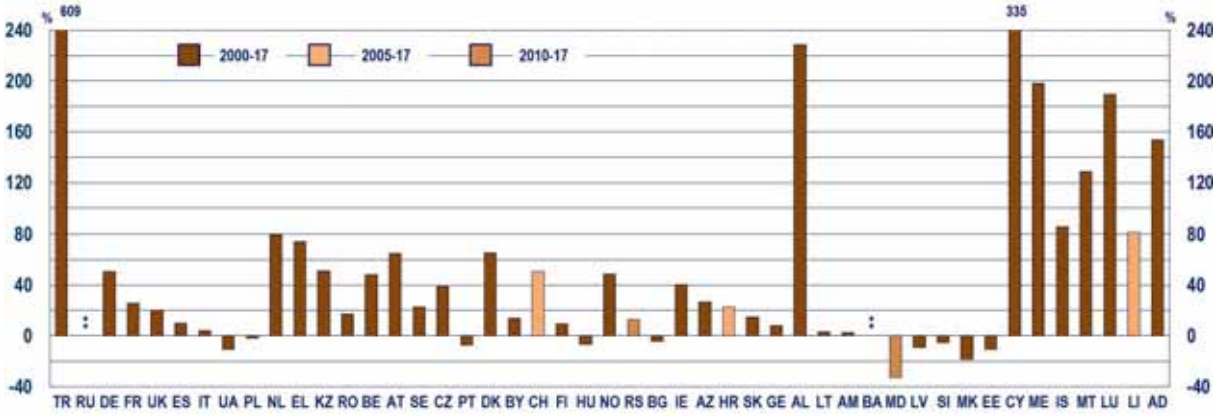
Countries are arranged by the total number of students in tertiary education. The graph is scaled to 3 million for readability.

There were about 38.1 million tertiary education students enrolled in the EHEA in the academic year 2016/17. Turkey and Russia, the most populous countries, accounted for the highest number of tertiary education students (both close to 7.2 million students), each equivalent to about 19 % of the EHEA total. Five countries (Russia, Turkey, Germany, France and the United Kingdom) accounted for almost 60 % of the total student population in the EHEA. Spain, Italy, Ukraine and Poland had the next largest student populations – each accounting for more than 1.5 million students in tertiary education – far higher number from the rest of EHEA countries, where the number of students did not exceed 900 000.

Overall across the EHEA, most tertiary students (56.4 %) were enrolled in first-cycle programmes (bachelor programmes), while 21.2 % was enrolled in second-cycle programmes (master degree or equivalent level) and 19.7 % in short-cycle tertiary education. Just 2.7 % of tertiary students were enrolled in third-cycle programmes (doctoral or equivalent).

Figure 1.2 shows the percentage change in the number of students enrolled in tertiary education between the earliest (1999/2000) and the most recent (2016/17) time points in the Bologna Process.

Figure 1.2: Percentage change in the number of students enrolled in tertiary education, 2000-2017



%	TR	RU	DE	FR	UK	ES	IT	UA	PL	NL	EL	KZ	RO	BE	AT	SE
2000-2017	609.0	:	50.5	25.7	20.1	9.9	3.8	-10.9	-1.9	79.5	74.0	50.9	17.4	48.1	64.7	22.9
	CZ	PT	DK	BY	CH	FI	HU	NO	RS	BG	IE	AZ	HR	SK	GE	AL
2000-2017	39.1	-7.2	65.1	13.9	50.5	9.4	-6.5	48.8	13.0	-4.4	40.1	29.6	22.7	14.8	7.9	228.6
	LT	AM	BA	MD	LV	SI	MK	EE	CY	ME	IS	MT	LU	LI	AD	
2000-2017	3.2	2.6	:	-33.0	-9.1	-5.1	-18.6	-10.9	334.6	198.5	85.9	128.4	189.6	81.6	153.6	

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

Notes:
Countries are arranged by the total number of students in tertiary education (2017).

Looking at the variations in the total student population within the EHEA over time (i.e. between 1999/2000 and 2016/17), the pattern across countries differs. The largest percentage increase in the number of enrolled students between 2000 and 2017 took place in Turkey, with an increase of over 600 %, followed by Cyprus (increase of over 300 %) and Albania (increase of over 200 %). Only a few countries experienced a decrease during the same period. The steepest decreases were in Moldova (33 %), North Macedonia (almost 19 %), Ukraine (over 10 %) and Latvia and Estonia (around 10 %).

Over this 17 year period, the absolute number of tertiary students in the EHEA increased significantly. Indeed the total increase between 2000 and 2017 was more than 18.2 million. Increases were observed in almost all countries, with the highest being recorded in Turkey – an increase of more than 6 million students – and Germany, with an increase of more than a million students. It is also notable that the number of students in Albania and Cyprus more than tripled. Despite the overall upward trend observed during this period, this was not without exceptions: slight decreases were recorded in Ukraine, Poland, Portugal, Hungary, Bulgaria, Latvia, Slovenia, North Macedonia and Estonia.

The overall picture hides some country variations at different periods. Looking at five different time points, namely 1999/2000, 2004/05, 2009/10, 2014/15 and 2016/17, 11 out of the 39 countries for which data are available for all periods, recorded consecutive increases in the rate of change in the number of students. In contrast, five countries (Kazakhstan, Italy, Hungary, Latvia and Finland) initially saw increases in the tertiary education population but have recorded three successive reductions for the most recent time points.

The period between 2005 and 2010 reveals a growth of more than 12 % across the EHEA as a whole. For this period, Romania, Austria, Cyprus, Turkey, Liechtenstein, Albania and Montenegro recorded increases above 30 %.

Between 2010 and 2015, Turkey recorded an increase in student numbers of 71.8 %. This was far beyond the next highest countries – Albania and Denmark – which were close to 30 %.

In contrast, decreases in student numbers were apparent in about half of the EHEA countries, including four of the larger countries (France, Italy, Ukraine and Poland). Decreases were most

pronounced in Romania and North Macedonia (both above 45 %), and also significant in Lithuania and Ukraine (both above 30 %).

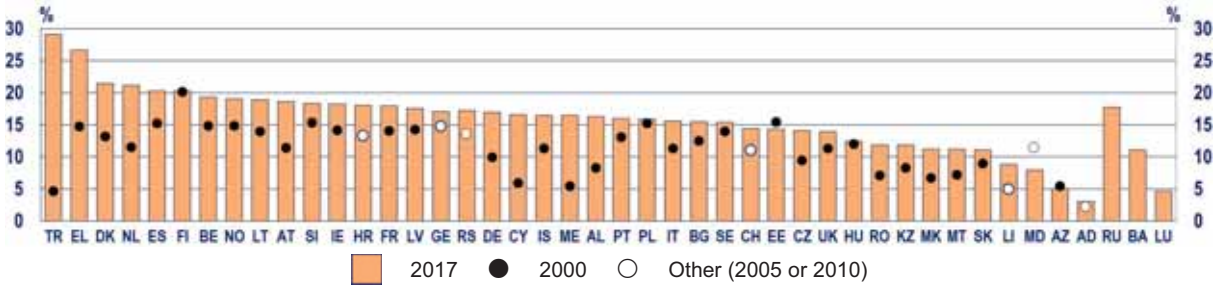
These changes over time should be viewed in combination with other factors, such as demographic changes (increases or decreases in the size of young population cohorts) which may have an impact upon the structure of the population as well on the human resources required for the functioning of education systems. The structure of the (higher) education systems is also important to bear in mind for example whether or not short-cycle tertiary programmes exist, and whether part-time study is facilitated. Country-specific characteristics, national policies aimed at increasing tertiary entry and completion rates, financing provided to institutions are all important features to consider in relation to this data.

Changes in economic conditions – such as the impact of the 2008 financial and economic crisis – also influence the desire and ability of young people to enrol in higher education. Institutional conditions are also relevant including: (a) admissions rules and procedures, (b) the cost/benefit analysis involved in acquiring higher education – such as fees, employment rates of graduates, and (c) the length of studies – which in turn depends on the structure of the programmes.

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

Figure 1.3 presents the change in enrolment rates in tertiary education between 2000 and 2017 for students aged 18-34, the typical age for attending higher education. The indicator thus shows the share of the population aged 18-34 that studies in tertiary education.

Figure 1.3: Enrolment rates in tertiary education for the 18-34 olds, 2000-2017



%	TR	EL	DK	NL	ES	FI	BE	NO	LT	AT	SI	IE	HR	FR	LV	GE	RS	DE	CY	IS	ME	AL	PT
2017	29.1	26.6	21.4	21.1	20.3	20.3	19.3	19.0	18.9	18.6	18.3	18.2	18.0	17.9	17.6	17.1	17.2	16.9	16.5	16.5	16.4	16.3	15.9
2000	4.6	14.7	13.2	11.5	15.2	20.1	14.8	14.8	13.9	11.4	15.4	14.1		14.1	14.3			9.9	5.9	11.3	5.4	8.2	13.0
2005													13.3			13.3							
2010																	13.5						

	PL	IT	BG	SE	CH	EE	CZ	UK	HU	RO	KZ	MK	MT	SK	LI	MD	AZ	AD	RU	BA	LU	EHEA
2017	15.9	15.5	15.4	15.4	14.4	14.3	14.1	13.9	12.5	11.9	11.8	11.2	11.1	11.1	8.8	7.9	4.9	3.0	17.7	11.0	4.6	16.4
2000	15.2	11.3	12.5	14.0		15.4	9.4	11.3	12.0	7.1	8.3	6.7	7.1	9.0			5.4		:	:	:	11.5
2005					11.0										4.9							
2010																11.4		2.1				

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

Notes:

Countries are arranged by the share of enrolment rates for students aged 18-34 for 2017 when data for two reference years are available. EHEA: Refers to the EHEA median calculated based on countries with available data for both reference years.

In 2017, the median enrolment rate in the EHEA was 16.4 %. This signifies that half of the countries analysed record an enrolment rate higher than this percentage, while the other half had an enrolment rate below this figure.

For the year 2017, Turkey, Greece, Denmark, the Netherlands, Spain and Finland each reported enrolment rates higher than 20 %. At the other end of the spectrum, the enrolment rate was lower than 9 % in Moldova, Azerbaijan, Liechtenstein, Luxembourg and Andorra. It is important to note that in the latter three countries, more than two-thirds of the tertiary student population studied abroad (see Chapter 5) and these students are therefore not reflected in the national enrolment statistics.

In 2000, only Finland had an enrolment rate above 20 %. The next highest rates were in Estonia, Slovenia, Poland and Spain, where about 15 % of persons aged 18-34 studied in tertiary education. The lowest rates (below 5 %) were recorded in Turkey, Liechtenstein and Andorra although for these latter two countries the relevant issue is that the majority of students enrolled abroad.

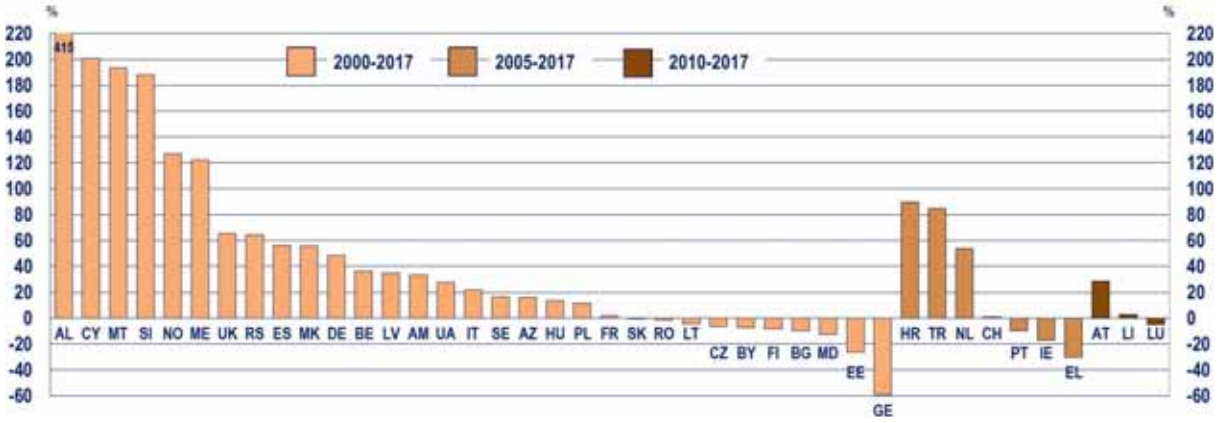
When analysing only the countries for which data are available throughout the five selected years, the median enrolment rate in the EHEA constantly increased: 12 % in 2000; 13.5 % in 2005; 15 % in 2010, and stabilising close to 16 % from 2010 onwards (16.1 % in 2015 and 16.4 % in 2017).

In eight countries (Belgium, Germany, France, Cyprus, Malta, the Netherlands, Portugal and Norway), successive increases were recorded throughout all the time points. Between the two most recent years (2015 and 2017), there has been an increase in the enrolment rates in 22 countries. The sharpest increases were recorded in Turkey and Cyprus (an increase of 4 and 2.5 percentage points, respectively). Comparing 2000 to 2017, a rise in the enrolment rates was recorded in the majority of countries. Greece, Albania and Montenegro experienced an increase of about 11 percentage points and the highest increase is of 24.4 % for Turkey.

1.2. Academic staff

Section 1.1 showed the ways in which student enrolments have developed throughout the lifetime of the Bologna Process. This section focuses on the corresponding trends with regard to academic staff. Figure 1.4 presents the percentage change in the number of academic staff between 2000 and 2017.

Figure 1.4: Percentage change in the total number of academic staff between 2000 and 2017



%	AL	CY	MT	SI	NO	ME	UK	RS	ES	MK	DE	BE	LV	AM	UA	IT	SE	AZ	HU	PL	FR
2000-2017	415.3	200.6	193.6	188.2	127.0	122.4	65.6	64.5	56.1	55.8	48.5	36.5	34.7	33.6	27.8	21.6	16.3	15.9	13.5	11.4	2.0
	SK	RO	LT	CZ	BY	FI	BG	MD	EE	GE	HR	TR	NL	CH	PT	IE	EL	AT	LI	LU	
2000-2017	-0.1	-1.3	-4.5	-6.6	-7.6	-8.2	-9.7	-12.7	-26.2	-59.1											
2005-2017											89.7	84.9	53.9	1.1	-9.8	-17.0	-30.2				
2010-2017																		28.4	2.8	-5.0	

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

Notes:

Countries are arranged by the percentage change in the number of academic staff (2000). Where data are not available from 2000 they are presented from either 2005 or 2010.

There has been an increase in academic staff in more than half of the 40 countries for which data are available. The largest increases occurred in Albania and Cyprus (415 % and 200 % respectively), followed by significant increases of between 120 % and 195 % in Malta, Slovenia, Norway and Montenegro. Among the 13 countries which recorded a decrease, the largest decreases took place in Georgia, Greece and Estonia (a rate of change of 25 % or higher).

Four of the six countries with the largest increase in academic staff (Albania, Cyprus, Montenegro and Malta) also recorded high increases in the number of tertiary enrolments within the same period (see Figure 1.2). In contrast, Slovenia saw an increase in the number of the academic staff while the number of students in tertiary education recorded declined by 5 %.

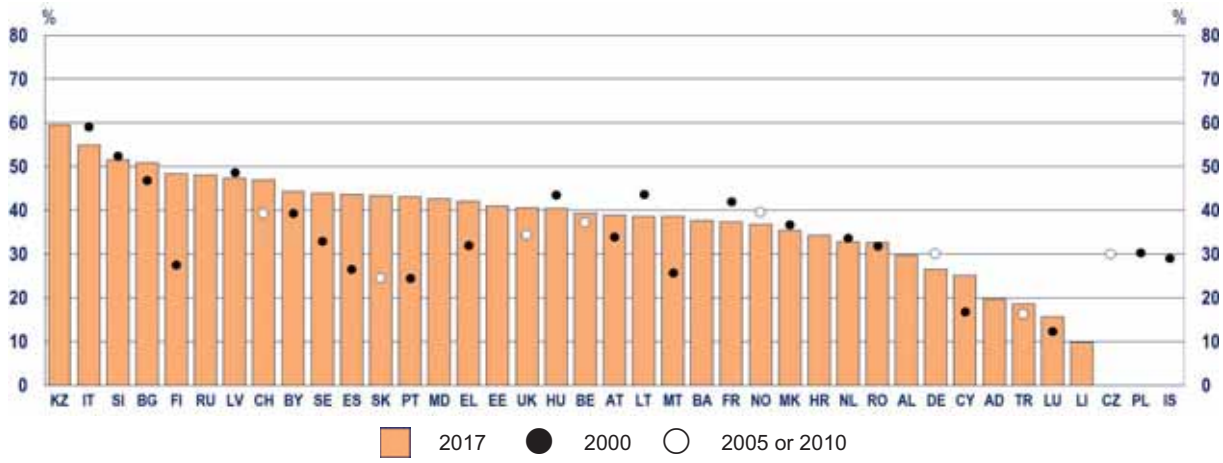
The analysis of the evolution of academic staff numbers between the sub-periods 2000-2005, 2005-2010, 2010-2015 and 2015-2017 reveals the most significant decline in academic staff occurred during the two most recent periods. In 21 countries, there was a decrease of academic staff between 2010 and 2015 and in 13 countries between 2015 and 2017.

Declines in the number of academic staff during the latest periods do not necessarily match changes in the number of students enrolling in tertiary education (see Figures 1.2 and 1.3). Indeed a number of countries have recorded a decrease in academic staff numbers alongside an increase in the number of students. This is the case in Czechia, Ireland, Greece, France, Moldova and Azerbaijan. However, there were also 14 countries where an increase in the number of academic staff was accompanied by an increase in the number of students ([1]).

([1]) Belgium, Bulgaria, Germany, Spain, Croatia, Cyprus, Malta, the Netherlands, the United Kingdom, Switzerland, Albania, Montenegro, Serbia and Turkey

Age is an important characteristic of academic staff, and particularly relevant in looking to system-level planning. Figure 1.5 presents the share of academic staff aged 50 and over for 2000 and 2017.

Figure 1.5: Percentage of academic staff aged 50 or over, 2000 and 2017



%	KZ	IT	SI	BG	FI	RU	LV	CH	BY	SE	ES	SK	PT	MD	EL	EE	UK	HU	BE	AT
2017	59.5	54.9	51.6	50.8	48.3	48.1	47.4	47.0	44.3	43.9	43.6	43.4	43.0	42.6	42.1	41.0	40.5	40.4	39.3	39.0
2000		59.2	52.4	46.9	27.6		48.8		39.4	32.9	26.6		24.5		32.0			43.6		34.0
2005								39.1				24.4					34.3			
2010																			37.1	

	LT	MT	BA	FR	NO	MK	HR	NL	RO	AL	DE	CY	AD	TR	LU	LI	CZ	PL	IS	EHEA
2017	38.6	38.6	37.7	37.4	36.8	35.4	34.2	32.7	32.6	29.8	26.5	25.1	19.7	18.6	15.7	9.8	:	:	:	**39.8**
2000	43.8	25.7		42.0		36.8		33.7	31.9			16.9			12.4			30.3	29.1	**33.9**
2005					39.5						30.0						29.8			
2010														16.3						

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

Notes:

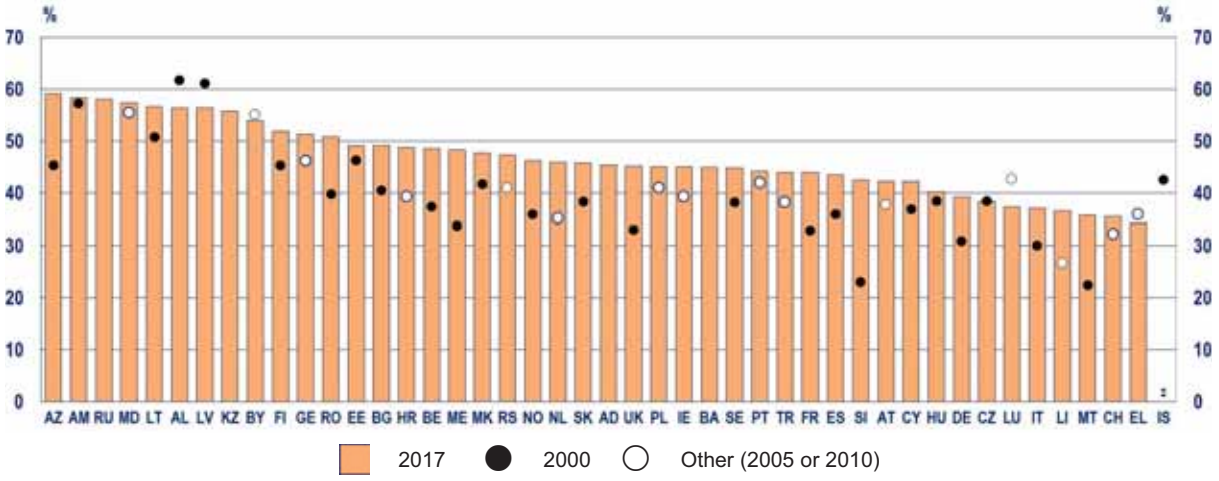
Countries are arranged by the percentage of academic staff aged 50 or over (2017). Where data are not available from 2000, they are presented from either 2005 or 2010.
EHEA: Refers to the EHEA median calculated based on countries with available data for both reference years.

In a first group of countries (Kazakhstan, Italy, Slovenia and Bulgaria), more than half of the academic staff is over 50 years old. Potentially there will be issues in ensuring that the system has the human capacity to renew itself in the mid-term future. This share is also relatively high (between 46 % and 48 %) in Finland, Russia, Latvia and Switzerland. The percentage of academic staff aged 50 and over is less than 30 % in Albania, Germany, Cyprus, Andorra, Luxembourg and Liechtenstein. In three of these countries – Albania, Cyprus and Andorra – the 35-49 age group accounts for the largest proportion (more than 40 % of the staff) whereas in Germany, Luxembourg and Liechtenstein, 40 % of staff are under 35 years old.

Although Italy, Slovenia, Bulgaria and Latvia recorded a lower percentage of academic staff aged 50 and over in 2017 compared to 2000, the share still remained relatively high (45 % and over). Large increases (higher than 17 percentage points) in the over 50 academic staff population can be found in Spain, Portugal, Slovakia and Finland. In contrast, Lithuania, France and Italy recorded a fall of more than 4 percentage points in the staff aged 50 and over between these two years.

Achieving an equitable gender distribution should also be a system-level aim; Figure 1.6 portrays the gender distribution among academic staff showing the evolution of the share of female staff between 2000 and 2017.

Figure 1.6: Percentage of female academic staff, 2000 and 2017



%	AZ	AM	RU	MD	LT	AL	LV	KZ	BY	FI	GE	RO	EE	BG	HR	BE	ME	MK	RS	NO	NL	SK	AD
2017	59.1	58.3	58.1	57.3	56.7	56.4	56.4	55.8	53.9	51.9	51.3	50.8	49.1	49.1	48.8	48.5	48.3	47.7	47.4	46.3	45.9	45.8	45.4
2000	45.4	57.3	:		50.8	61.8	61.2	:		45.3		39.8	46.4	40.5		37.4	33.8	41.7		35.9		38.4	:
2005				55.5							46.2				39.3						35.2		
2010									54.9										41.0				

	UK	PL	IE	BA	SE	PT	TR	FR	ES	SI	AT	CY	HU	DE	CZ	LU	IT	LI	MT	CH	EL	IS	EHEA
2017	45.2	45.0	45.0	45.0	44.8	44.3	44.0	44.0	43.4	42.6	42.3	42.3	40.2	39.3	38.4	37.3	37.1	36.6	35.8	35.5	34.3	:	45.2
2000	33.1			:	38.3			33.0	36.0	23.1		37.0	38.5	31.0	38.4		30.0		22.5			42.6	38.4
2005		41.0	39.4			42.0	38.3													32.2	36.0		
2010											37.7					42.6		26.6					

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

Notes:

Countries are arranged by the percentage of female academic staff (2017). EHEA: Refers to the EHEA median calculated based on countries with available data for both reference years.

In 2017, the EHEA median was 45.2, which means that in half of the countries more than 45 % of staff was female. Across countries, there were wide variations. 12 countries ([2]) have an academic staff population where women are the majority sex. Greece (34.3 %), Switzerland (35.5 %) and Malta (35.8 %) are the systems with the lowest proportion of women among the academic staff population.

Compared to 2000, the share of female staff has increased in all countries except Albania, Greece, Luxembourg and Latvia. Slovenia had the most significant increase (84.4 %) between 2000 and 2017, followed by Malta (59.1 %) and Montenegro (42.9 %).

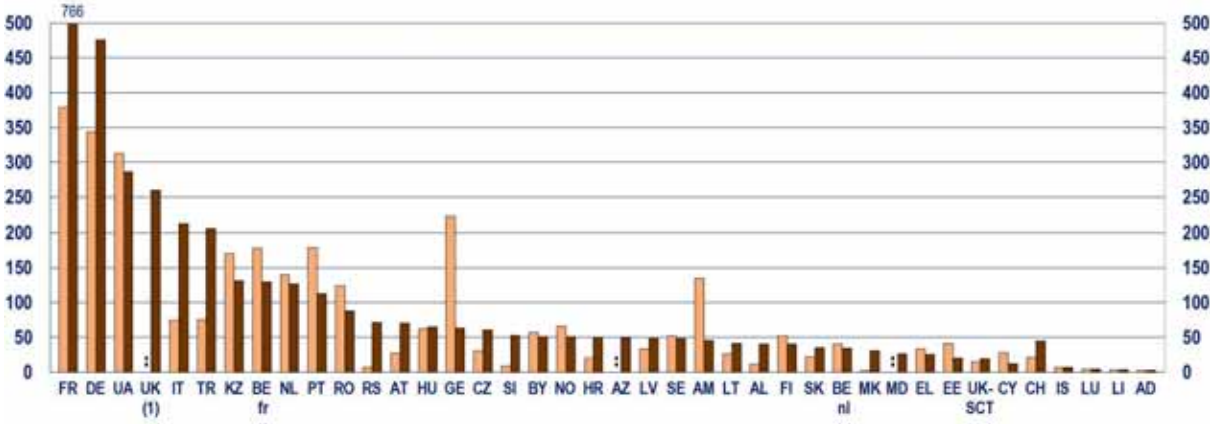
([2]) Azerbaijan, Armenia, Russia, Moldova, Lithuania, Albania, Latvia, Kazakhstan, Belarus, Finland, Georgia and Romania

1.3. Higher education institutions

When looking at the overall context for developments in the higher education sector, it is important to consider not only the evolution in student and staff numbers, but also the development of higher education institutions.

Figure 1.7a shows the number of higher education institutions in the academic years 1999/2000 and 2018/19.

Figure 1.7a: Number of higher education institutions in the EHEA, 1999/2000-2018/19



	FR	DE	UA	UK (1)	IT	TR	KZ	BE fr	NL	PT	RO	RS	AT	HU	GE	CZ	SI	BY	NO	HR
1999/2000	379	344	313	:	75	76	170	178	140	179	124	7	27	62	223	31	9	57	66	20
2018/19	766	476	286	260	213	206	131	129	127	113	88	71	70	65	63	61	53	51	51	50
	AZ	LV	SE	AM	LT	AL	FI	SK	BE nl	MK	MD	EL	EE	UK-SCT	CY	CH	IS	LU	LI	AD
1999/2000	:	33	52	135	26	11	52	22	40	2	:	33	41	15	28	21	7	4	3	2
2018/19	49	48	48	46	41	40	40	35	34	31	26	25	20	19	12	45	7	4	3	2

Source: BFUG data collection

UK (1) = UK-ENG/WLS/NIR

In total, the number of higher education institutions in EHEA countries with available data for the two years increased from 3 009 institutions in 1999/2000 to 3 537 in 2018/19. However, different trends have taken place during the period. In some countries, there has been a significant growth in (mostly) private higher education institutions, while in others the number of private higher education institutions has reduced. Meanwhile some countries have seen the merging and consolidation of institutions.

The highest increase in the number of institutions took place in France (+387), Italy (+138) and Germany (+132). The large increases are explained in Germany by growth in the private university sector. In France, the sharp increase in the number of institutions can be attributed in particular to the art schools (*écoles supérieures d'art et de culture*) and business schools being included in the number of institutions for the reference year 2018/19. Also in Italy, the higher education institutions for art, music and dance were not included in the higher education system in 1999/2000. Conversely, in 15 countries the number of institutions has decreased, with the most significant declines taking place in Georgia (-160), Armenia (-89), Portugal (-66) and Kazakhstan (-39).

Another way of looking at the number of institutions is to see how many of them there are in proportion to the overall population. Figure 1.7b shows the number of institutions per million inhabitants. This is a rather crude measure, as it does not take into account the size of the institutions, but nevertheless it gives a more contextualised picture of the situation regarding higher education institutions in EHEA.

Figure 1.7b: Number of higher education institutions per million people in the EHEA, 2017

SI	LV	IS	GE	AM	EE	LT	BE	AL	CY	HR	PT	FR	NO	RS	AT	NL
25	25	20	16	16	15	15	14	14	14	12	11	11	10	8	8	7
FI	**KZ**	**UA**	**HU**	**LU**	**SK**	**DE**	**CZ**	**BY**	**CH**	**AZ**	**SE**	**RO**	**UK**	**IT**	**TR**	**EL**
7	7	7	7	7	6	6	6	5	5	5	5	5	4	4	3	2

Source: Own calculation based on Eurostat and BFUG data collection

France is the only country with more than 10 million inhabitants that is above the median – which is eight institutions per million inhabitants. The main trend is for the most populous countries to be positioned below the median, even if they have the highest number of institutions. Meanwhile countries that are smaller in terms of population tend to have a higher number of higher education institutions.

1.4. Expenditure on higher education

European higher education institutions are funded predominantly from public sources. This section compares public expenditure on higher education in the EHEA based on Eurostat indicators: public expenditure as a percentage of GDP, and total public and private expenditure per student in purchasing power standard (PPS). Alone, none of the indicators presented below can provide a sufficient basis for comparing EHEA countries; but taken together they provide a broad overview of similarities and differences between them.

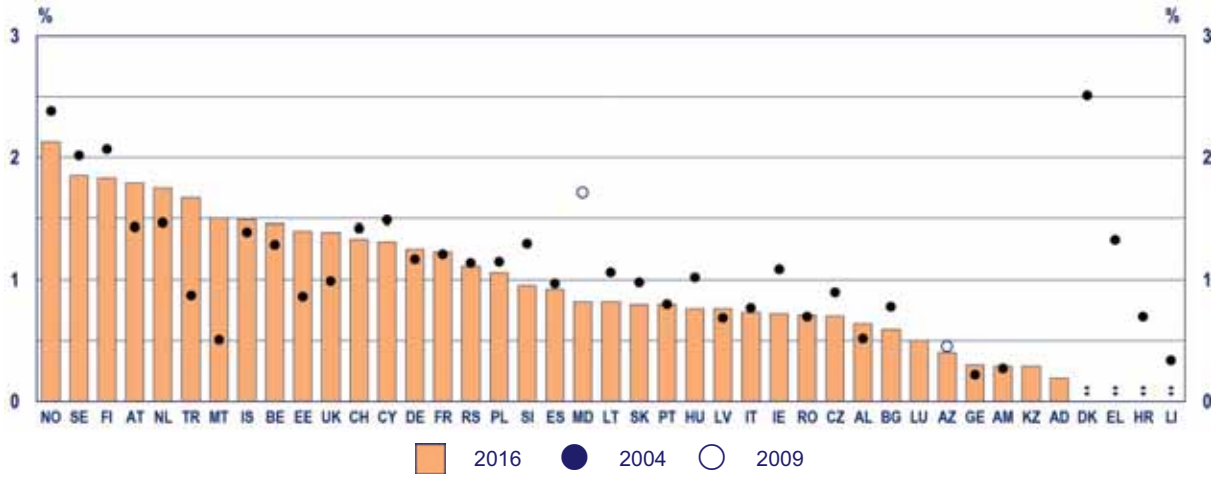
Annual public expenditure on tertiary education as a percentage of GDP provides a measure of a government's commitment to supporting higher education, and is useful when comparing countries of different economic sizes. Public expenditure on tertiary education covers expenditure from all levels of government combined and refers to direct funding on higher education as well as transfers to private households and firms.

The former includes expenditure that is directly related to instruction and research such as faculty and staff salaries, research grants, university and institutions' buildings, teaching materials, laboratory equipment, etc. The latter includes funding for entities that administer higher education (e.g. ministries or departments of education), that provide ancillary services (i.e. services provided by educational institutions that are peripheral to the main educational mission), and entities that perform educational research, curriculum development and educational policy analysis.

Transfers and payments to private entities include public subsidies to households and students as well as payments to other non-educational private entities (including scholarships and grants, public loans to students, specific public subsidies in cash or in kind for transport, medical expenses, books and other materials, etc.). However, annual public expenditure does not include tuition fees that are not covered by scholarships, grants or loans, and that are directly paid by households.

Figure 1.8 shows the annual public expenditure on tertiary education as a % of GDP (including Research and Development) in 2016 and 2004.

Figure 1.8: Annual public expenditure on tertiary education as a % of GDP (including R&D), 2016 and 2004



%	NO	SE	FI	AT	NL	TR	IS	MT	BE	EE	UK	CH	CY	DE	FR	RS	PL	SI	ES	MD	LT
2016	2.1	1.9	1.8	1.8	1.8	1.7	1.5	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.1	1.1	1.0	0.9	0.8	0.8
2004	2.4	2.0	2.1	1.4	1.5	0.9	1.4	0.5	1.3	0.9	1.0	1.4	1.5	1.2	1.2	1.1	1.2	1.3	1.0		1.1
2009																				1.7	

	SK	PT	HU	LV	IT	IE	RO	CZ	AL	BG	LU	AZ	GE	AM	KZ	AD	DK	EL	HR	LI	EHEA
2016	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.2	:	:	:	:	0.95
2004	1.0	0.8	1.0	0.7	0.8	1.1	0.7	0.9	0.5	0.8	:		0.2	0.3	:	:	2.5	1.3	0.7	0.3	
2009												0.5									

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

Notes:

Countries are arranged by the annual public expenditure as a % of GDP (2016). EHEA: Refers to the EHEA median calculated based on countries with available data for both reference years.

In 2016, the median public spending on tertiary education relative to GDP accounted for 0.95 % across the EHEA. With 2.1 % of GDP devoted to tertiary education in 2016, Norway was ahead of the other countries, followed by Sweden (1.9 %), Finland (1.8 %), Austria (1.8 %), the Netherlands (1.8 %) and Turkey (1.7 %). In those countries, in which relatively high shares of public spending in funding tertiary education were recorded, enrolment rates of persons aged 18-34 in tertiary education were also higher than 18.6 % (with the exception of Sweden in which the respective rate was 15.4 %) in 2017 (see also Figure 1.3). Azerbaijan, Georgia, Armenia, Kazakhstan and Andorra had the smallest shares (lower than 0.5 %) of tertiary educational expenditure as a percentage of GDP in 2016.

Moldova experienced the deepest reduction (a decrease of 0.89 percentage points) in the share of public expenditure on tertiary education between 2009 and 2016. Slovenia and Ireland had a fall of about 0.4 pp between 2004 and 2016. Decreases within the range of 0.03 to 0.26 percentage points were noted also in other 14 countries. Of the 17 countries which showed a decrease between 2009 and 2016, six (Slovenia, Hungary, Lithuania, Finland, Sweden and Poland) had also recorded a decrease in the enrolment rates of students aged 18-34 (see Figure 1.8).

The 2008 global economic crisis had a strong impact on the level of public funding of education and higher education systems. The data show that up until 2014 higher education systems were still dealing with the repercussions of the crisis, and decreases continued to be evident until 2016.

When analysing the evolution of the share of public expenditure directed to tertiary education as a percentage of GDP between 2009, 2014 and 2016, consecutive decreases were recorded in 17 countries out of 29 countries for which data are available at the three time points. In Estonia, Latvia, Lithuania,

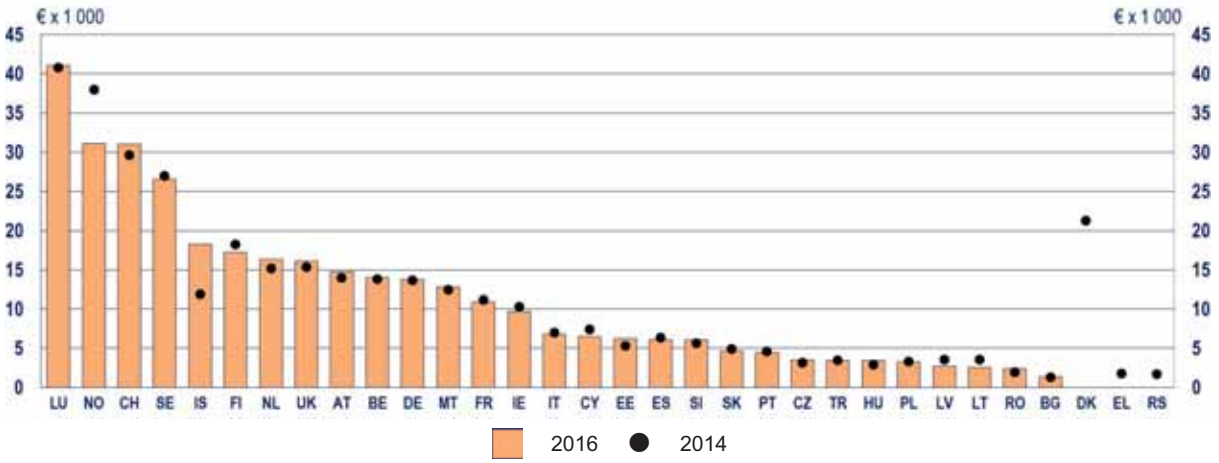
Poland and Albania, an increase in the respective share was recorded between 2009 and 2014, followed by a decrease within the next referenced time period. Only the Netherlands and the United Kingdom reported two consecutive increases in the years between 2009, 2014 and 2016.

The situation is similar when focusing on the evolution of the share of public expenditure on tertiary education as a share of GDP between 2009 and 2016. 25 countries (with the exception of Estonia, the Netherlands, Austria, the United Kingdom and Albania) saw a decline in the annual public expenditure on tertiary education as a percentage of GDP in this period.

Cross-country comparisons of the levels of expenditure spent on tertiary education cannot be made directly due to the different size of countries' student population. In order to account for a country's size of student population, the average expenditure per student is used.

Figure 1.9 shows the public and private expenditure on tertiary education per full-time equivalent student in 2014 and 2016. In addition to public expenditure, it also takes private expenditure into account to show an overall financial investment in higher education at national level.

Figure 1.9: Annual public expenditure on public and private tertiary institutions per full-time equivalent student in euro, 2014-2016



€	LU	NO	CH	SE	IS	FI	NL	UK	AT	BE	DE	MT	FR	IE	IT	CY	EE
2016	41 081	31 144	31 047	26 522	18 245	17 253	16 317	16 131	14 775	14 055	13 786	12 839	10 876	9 700	6 780	6 477	6 259
2014	40 777	38 012	29 599	26 975	11 878	18 236	15 194	15 308	13 960	13 825	13 692	12 474	11 151	10 329	7 009	7 420	5 283

	ES	SI	SK	PT	CZ	TR	HU	PL	LV	LT	RO	BG	DK	EL	RS	EHEA
2016	6 113	6 072	4 593	4 505	3 514	3 449	3 443	3 250	2 667	2 571	2 351	1 320	:	:	:	6 780
2014	6 319	5 621	4 942	4 594	3 154	3 505	2 938	3 310	3 580	3 563	1 965	1 275	21 273	1 746	1 678	7 215

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

Notes:

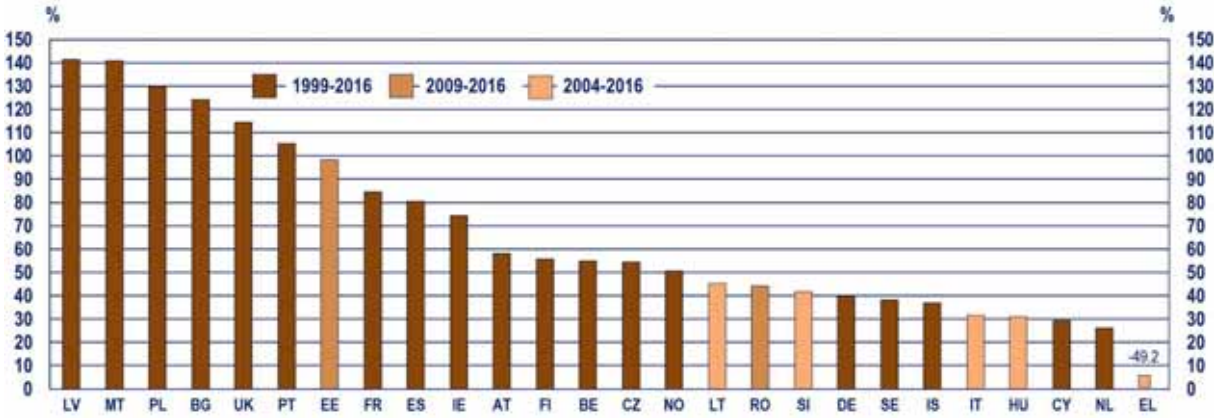
Countries are arranged by the annual public expenditure per FTE student in euro (2016). EHEA: Refers to the EHEA median calculated based on countries with available data for both reference years.

The median spending per student across EHEA in 2016 was EUR 6 780 per student. The highest spending countries, including the Nordic countries and Switzerland, spent more than EUR 17 000 per student in 2016, while eight countries at the other end (Czechia, Turkey, Hungary, Poland, Latvia, Lithuania, Romania and Bulgaria) spent less than EUR 4 000 per student.

The median level of expenditure per student was lower in 2016 compared to 2014 (when considering only countries for which data are available for both years). The financial increase per student was higher than EUR 1 000 in a small number of countries and was more than EUR 6 000 in Iceland.

Figure 1.10 provides a more precise comparison across countries as the measure of spending is adjusted in terms of the differences in price levels across the EHEA while taking into account the size of the student population in a country through the provision of the financial spending of a country per full-time student.

Figure 1.10: Percentage change in the annual public and private expenditure on public and private tertiary education institutions in PPS per full-time equivalent between 1999 and 2016



LV	PL	BG	UK	EE	FR	ES	IE	AT	FI	BE	CZ	NO	LT	RO	SI	DE	SE	IS	IT	HU	CY	NL	EL
141.5	129.5	124.2	114.4	98.2	84.5	80.5	74.3	58.3	55.9	55.0	54.4	50.7	45.4	44.1	41.7	40.0	38.2	36.9	31.5	30.9	29.4	26.1	-49.2

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

Notes:

Countries are arranged by the percentage change in the annual public and private expenditure in PPS per FTE (2016).

Between 1999 and 2016, Latvia showed the highest increase (141 %) in its spending on higher education institutions per full-time equivalent student, followed by notable increases in Poland (129 %), Bulgaria (124 %) and the United Kingdom (114 %). The smallest increases took place in Hungary, Cyprus and the Netherlands. In Greece, the expenditure invested per full-time equivalent student decreased by about half compared to 2004.

Overall, across countries for which data were available in 2016, the median EHEA annual (public and private) expenditure on tertiary education institutions was 9 164 per full-time equivalent student in PPS. Differences between countries appear to be significant. Sweden, the United Kingdom, Norway and the Netherlands spent more than PPS 14 000 per full-time student, while this spending fell below PPS 6 000 in Latvia, Lithuania, Bulgaria and Romania as well as Greece, which was far behind the other four countries at about PPS 2 400. The level of expenditure spent by the highest spending country in 2016 was about seven times higher than the country spending the least per full-time equivalent student.

Combining the information on changes in expenditure devoted in tertiary education institutions per full-time student and the student population in tertiary education reveals some interesting outcomes. Three countries – Latvia, Poland and Bulgaria – that showed significant increases in their investments between 1999-2016 also recorded slight decreases (11 % or less) in the number of students enrolled in tertiary education. This suggests that the increases in spending per student may not be solely attributed to higher investment but also to a decrease or slower pace of growth in the student population. The opposite is true for the United Kingdom, where the relationship between expenditure per full-time student and the student population is positive, i.e. the number of enrolled students has increased at the same time as spending per student has also increased. With reference to Greece, it can be noted that the growth in the number of students in the student population was accompanied by a decrease in the annual expenditure per full-time student.

In order to further review the intensity of investment in tertiary education, the next section undertakes a comparative analysis between the expenditure per full-time student and the size of the economy taking into account population size. This perspective avoids problems of different student populations as percentages of the total population, as is the case when considering the ratio of the government expenditure on education to GDP. For higher education, cross-country comparison is more complex as enrolment rates vary in greater proportions (see Figure 1.3): countries where the enrolment rate is low could show higher expenditure per full-time equivalent students than countries with higher enrolment rates. Dividing the GDP per capita by the expenditure per full-time equivalent student provides a more harmonised and comparable measure of the intensity of the expenditure on education.

Figure 1.11 shows the annual public and private expenditure on public and private education institutions on tertiary education, per full-time equivalent student in PPS relative to the GDP per capita in PPS for the years 2004, 2014 and 2016.

A positive relationship between the size of the economy taking into account its population (expressed through GDP per capita) and expenditure on education per full-time student (as expressed through the annual public and private expenditure on educational institutions per full-time equivalent) is revealed across the countries analysed. The fact that the correlation between the expenditure per full-time equivalent student and GDP per capita is positive indicates that, as may be expected, richer countries invest more per student, regardless of the size of the economy and the size of education sector.

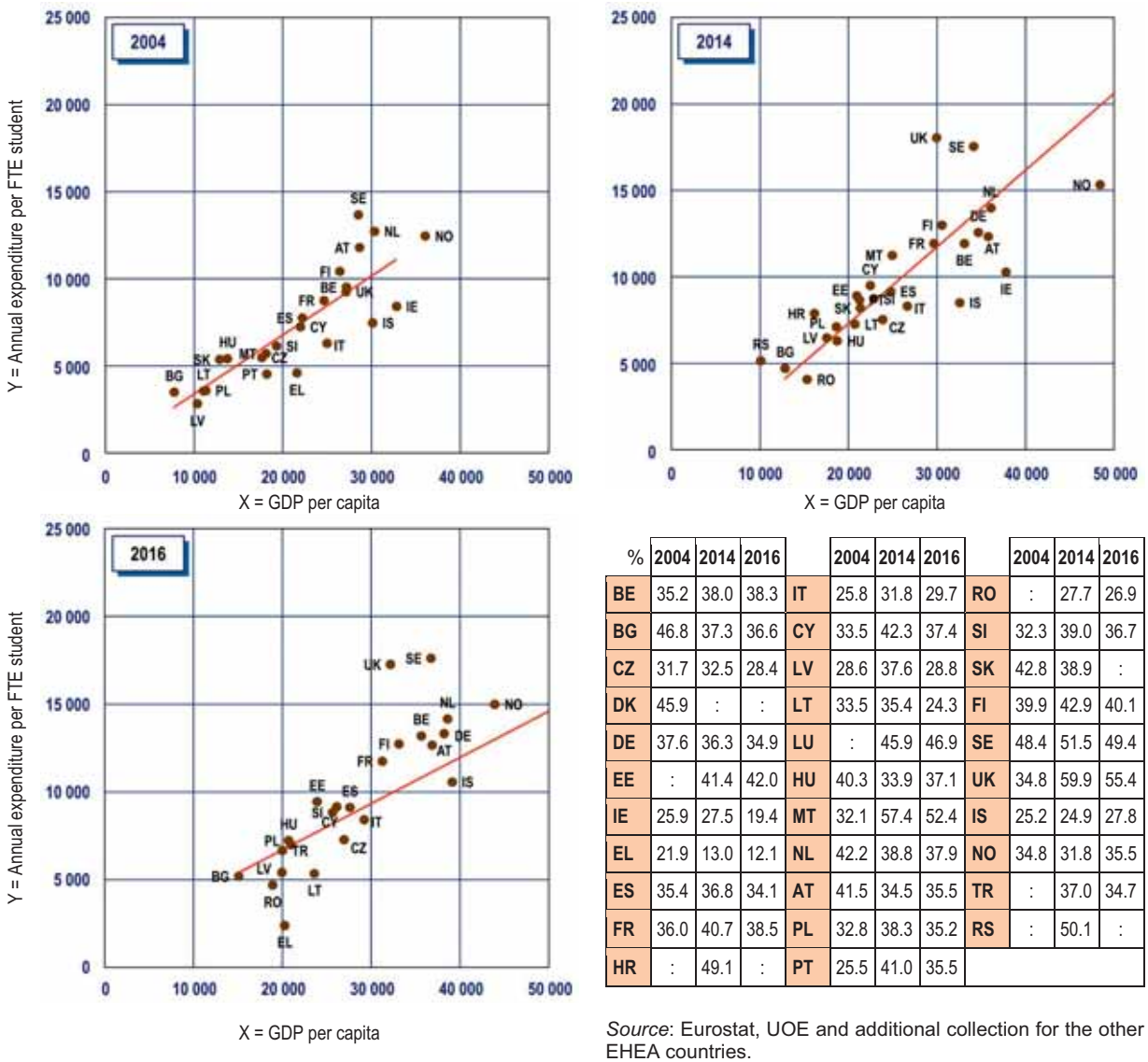
However, this correlation does not imply a direct causal relationship between the two variables in the short term. Indeed, public expenditure (i.e. the major part of total expenditure on tertiary education) involves long-terms commitments (e.g. capital expenditure or staff salaries) and cannot be adjusted rapidly to unexpected changes in economic conditions; the number of students is the result of multi-cohorts behaviours and their attitudes towards tertiary education.

Throughout 2004, 2014 and 2016, countries providing relatively high expenditure on tertiary institutions and having a high GDP per capita were Sweden, the Netherlands, Austria and Finland, while there was lower expenditure on tertiary education institutions and lower GDP per capita in East European countries.

A clear increase from 2004 to 2014 is recorded in the United Kingdom in terms of the expenditure invested per student (from PPS 9 351 to PPS 18 019). This was not, however, accompanied by a substantial increase in GDP per capita during the same period (from PPS 26 900 to PPS 30 100). Looking more in detail at the trend of the expenditure per student throughout this period, the highest increase occurs between 2004 and 2006 as well as in 2012. One likely explanation of this finding is the increase of fees to £9 000 per year in 2012.

The tables in Figure 1.11 show the ratio of the expenditure (annual and private) on higher education institutions per student to GDP per capita, showing how much of the GDP per capita is spent on each student. This can be seen as a measure of public and private investment in higher education. It reveals that countries with different sizes of economy and annual expenditure per student may make a similar relative financial effort towards investment in tertiary education. For example, in 2014, Serbia and Croatia spent about 50 % of their GDP per capita on each tertiary student, which was close to the respective share spent by Sweden and Finland, in which the GDP per capita and annual expenditure per student are more than double. Similarly, Estonia had a similar intensity of investment to Sweden and Finland in 2016, despite the fact that the GDP per capita and the expenditure per student were more than 1.5 times higher in the latter countries.

Figure 1.11: Annual public and private expenditure on public and private education institutions on tertiary education, per full-time equivalent student in PPS relative to the GDP per capita in PPS, 2004, 2014 and 2016



%	2004	2014	2016		2004	2014	2016		2004	2014	2016
BE	35.2	38.0	38.3	IT	25.8	31.8	29.7	RO	:	27.7	26.9
BG	46.8	37.3	36.6	CY	33.5	42.3	37.4	SI	32.3	39.0	36.7
CZ	31.7	32.5	28.4	LV	28.6	37.6	28.8	SK	42.8	38.9	:
DK	45.9	:	:	LT	33.5	35.4	24.3	FI	39.9	42.9	40.1
DE	37.6	36.3	34.9	LU	:	45.9	46.9	SE	48.4	51.5	49.4
EE	:	41.4	42.0	HU	40.3	33.9	37.1	UK	34.8	59.9	55.4
IE	25.9	27.5	19.4	MT	32.1	57.4	52.4	IS	25.2	24.9	27.8
EL	21.9	13.0	12.1	NL	42.2	38.8	37.9	NO	34.8	31.8	35.5
ES	35.4	36.8	34.1	AT	41.5	34.5	35.5	TR	:	37.0	34.7
FR	36.0	40.7	38.5	PL	32.8	38.3	35.2	RS	:	50.1	:
HR	:	49.1	:	PT	25.5	41.0	35.5				

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

The fluctuations in the intensity of the investment over time can be observed through combining two measures. Firstly, the total (public and private) expenditure on tertiary education per student and secondly the GDP per capita. A constant ratio across time signifies that both investment per student and GDP per capita increased or decreased at the rate, indicating that expenditure in education is given the same priority over time. It is important to note that this measure of expenditure includes both public and private spending, so it is impossible to tell from this particular indicator how public expenditure reacts to changes in the GDP per capita. As the discussion of the United Kingdom above demonstrates, it is possible to achieve an increase in the ratio even when public spending decreases if private spending on tertiary education increases at the same time (see Figure 1.9 for discussion of changes in public expenditure only).

Of the 25 countries for which data is available for all reference years analysed, the ratio of public and private expenditure per full-time equivalent student and GDP per capita decreased in 10 countries (Czechia, Germany, Ireland, Spain, the Netherlands, Lithuania, Hungary, Austria, Greece and Bulgaria). This means that in these countries public and private investment in higher education declined relative to the country's size of economy. In Germany, the Netherlands, Greece and Bulgaria, expenditure on tertiary education per student grew slower than GDP per capita, while in Austria and Hungary it grew slower than the GDP per capita during the period 2004 to 2014, while this was

reversed in the period 2014 to 2016. In Lithuania, Ireland, Spain and Czechia, expenditure declined at a faster rate, whereas in Greece expenditure declined at a slower pace than GDP per capita over this time period.

1.5. Conclusions

Although developments and trends vary largely between countries when it comes to student numbers or enrolment rates, the EHEA has seen a continuous rise of total student numbers since its inception. It has reached more than 38 million students in 2016/17. Turkey and Russia alone make up for 18.9 % of all students in the EHEA. Together with Germany, France and the United Kingdom, they represent almost 60 % of the total student population of the EHEA. The data paints a picture of significant growth of the student body in almost all countries, whereas the median enrolment rate has stabilised at about 16 % in the EHEA countries for which data is available, from 2010 onwards. The majority of tertiary students (56.4 %) are enrolled in first-cycle study programmes.

The majority of countries recorded a positive rate of change in student enrolments, from 3 % in Armenia and Lithuania to 609 % in Turkey. On the other side of the spectrum, a negative rate of change between 2000 and 2017 was recorded in 10 countries, which reported falls of 2 % (Poland) to 33 % (Moldova). Changes over time need to be viewed in combination with other factors, particularly demographic changes. The structure of education systems may also play a role.

There has been an increase in academic staff in more than half of the 40 countries for which data are available. An increase in staff does however not automatically imply an increase in student numbers nor is a decrease in staff necessarily a result of a smaller student body. Although the numbers vary strongly between countries – from over 60 % to 34 % – in half of the countries, about 45 % of the academic staff is female.

The overall number of higher education institutions has increased significantly in the EHEA countries for which data were available. However, there were both decreases in the number of institutions in many countries due to mergers of institutions and consolidation of private higher education, while in many others, the increase in the number of institutions was due to growth in the private university sector.

Norway, Sweden, Finland, Austria, the Netherlands and Turkey are the countries with the highest percentage share of GDP devoted to tertiary education.

A consecutive upward trend is observed in the expenditure spent on tertiary education institutions per full-time equivalent student until the period 2009-2014, before falling again during the period 2014-2016.

In 2016, the median public spending on tertiary education relative to GDP accounted for 0.95 % across the EHEA. Richer countries may invest more per student, regardless of the size of the economy and the size of education sector. In general, the percentage of public spending as a share of GDP varies strongly from 2.1 % in Norway to 0.3 % in Lithuania.

CHAPTER 2:
DEGREE STRUCTURES

Chapter outline

This chapter examines the developments linked to three-cycle degree structure in the EHEA. It begins with a narrative section 2.1 that examines the progress made throughout the period of the Bologna process, as well as the way in which the main Bologna tools have been used and developed to accompany the process.

Section 2.2 presents statistical data on the numbers of students enrolled in the different cycles. Section 2.3 gives the latest state of play with regard to policy commitments linked to three-cycle implementation.

The 2018 Paris Communiqué

With the Paris Communiqué, minsters re-emphasised their promise to 'ensure full implementation of ECTS' (p. 2). They accepted the revised version of the Diploma Supplement and welcomed the initiatives undertaken towards its digitalisation. The ministers further agreed, for matters of social cohesion and accessibility, and for enhanced recognition, to include short-cycle qualifications as stand-alone qualification in the overarching framework of qualifications of the EHEA (QF-EHEA), leaving the question of implementation and integration to the national level. The governments also agreed to set up three 'thematic peer groups' (p. 2) to ensure quality and cooperation in the EHEA for better implementation of three Bologna key commitments. One peer group focuses on issues related to degree structures. Reports of this activity are expected for the EHEA ministerial conference in Rome in 2020.

Key messages

- The history of the Bologna Process reveals an extraordinary success story in developing convergent degree structures across the 48 countries of the EHEA. It also shows that, although systems are more understandable and qualifications readable, there is still work to do in ensuring smooth and seamless connection throughout the EHEA.
- There is no single model of first-cycle or second-cycle programmes in the EHEA. In the first cycle, the 180 ECTS workload characterises the majority of programmes in more than half of all EHEA countries. In the second cycle, the 120 ECTS model is by far the most widespread.
- The main tools of the Bologna Process are in place. ECTS is used throughout the EHEA, with external quality assurance systems evaluating its correct implementation in 26 systems; nearly all EHEA countries issue the Diploma Supplement; and the majority of countries have fulfilled their commitment to establish and use a national qualifications framework compatible with the QF-EHEA.

2.1. History of progress and challenges in three-cycle degree structure reforms

2.1.1. The origins of the Bologna Process

In the late 1990s, degree systems in Europe were generally very complex and diverse, as the first EUA Trends report demonstrated (EUA, 1999). Many systems had in common the award of a master degree (or equivalent) after about five years of study. Whether it was awarded after the completion of a single, long integrated programme of study or after the completion of two cycles of study of varying length (e.g. 4+1 or 3+2) differed, both between and also within countries. In contrast with this five-year master degree, the duration of the first degree, where it existed, and of the doctoral degree varied considerably across Europe.

Already before the Bologna Process began, reforms had been initiated in several European countries in order to make national systems of higher education more internationally attractive or competitive. Several countries had introduced the structure of bachelor and master degrees. The Trends survey reported that Czechia, Denmark, Finland, Iceland, Ireland, Malta, Slovakia and the United Kingdom already had first cycle or bachelor degrees in place prior to the signature of the Bologna Declaration. Hence, the Bologna Process did not invent the concept of bachelor and master degrees for which it later became known. Rather it picked up an existing trend and moved it centre stage at European level.

In 1998, against a background of growing internationalisation and massification of higher education systems, the French Education Minister invited his counterparts from Germany, Italy and the United Kingdom to sign the Sorbonne Declaration ([3]). With the Sorbonne Declaration, the four ministers committed 'to encouraging a common frame of reference, aimed at improving external recognition and facilitating student mobility as well as employability' (p. 3). The ministers further expressed the ambition to create a European area of higher education to 'strengthen each other for the benefit of Europe' (ibid). Hence, from the outset, the overall ambition was closely related to the objective of ensuring Europe's global competitiveness and attractiveness.

The readability and comparability of degrees was considered crucial to remove barriers and to ease mobility and cooperation in higher education, as well as to ensure 'international recognition and attractive potential' (p. 1). Therefore, the ministers envisaged introducing a common two-cycle system, consisting of an undergraduate and a graduate cycle of higher education. They sought international recognition of the first cycle degree 'as an appropriate level of qualification' (p. 2) and foresaw two different types of second cycle: a shorter one leading to a master and a longer one leading to a doctoral degree.

Next to the two-cycle system, they sought to introduce a credit system in order for students to be able to move between countries and universities, and to be able to accumulate and validate collected credits.

([3]) Sorbonne Joint Declaration. Joint declaration on harmonisation of the architecture of the European higher education system, Paris, the Sorbonne, 25 May 1998.

2.1.2. Bologna Process commitments and developments: the first decade

Bologna 1999

One year later, in 1999, ministers met again to discuss and sign the Bologna Declaration ([4]). The group had enlarged significantly from four to thirty countries, already spreading beyond the European Union countries that numbered fifteen at the time. The purpose was to create the European Higher Education Area by 2010. They agreed to work more closely together on issues related to their higher education systems in order to ensure mobility and comparability of qualifications. They re-emphasised the need for compatible and comparable degrees and systems of higher education in order to ensure the attractiveness and thus also, the 'international competitiveness of the European system of higher education' (p. 2).

Concretely the Bologna Declaration outlined six objectives. Ministers confirmed their commitment to introduce the two-cycle system, with a first cycle of at least three years duration leading to a first degree 'relevant to the labour market' (p. 3) and a second cycle leading to a master or a doctoral degree. The ministers also introduced the Diploma Supplement (already integrated into the Lisbon Recognition Convention framework) as a transparency tool to enhance readability and comparability of degrees, and committed themselves to using a credit system to promote student mobility. They sought to enhance and promote mobility by overcoming obstacles for students, teachers and researchers as well as for administrative staff. Co-operation in quality assurance was also specified in order to develop comparable criteria and methodologies. A European dimension was to be promoted 'particularly with regards to curricular development, interinstitutional co-operation, mobility schemes and integrated programmes of study, training and research'.

The Bologna Declaration thus took up the idea of a two-cycle higher education system that had been put forward by the Sorbonne Declaration a year earlier. At this stage the main focus at European level was on introducing the bachelor, and defining its relationship with the master. As a result, it is often mistakenly argued that doctoral studies were only included in the Bologna Process with the Berlin Communiqué in 2003. In fact, while referring to a two-cycle system with an undergraduate and a graduate cycle, both the Sorbonne and the Bologna Declarations explicitly included doctoral studies. The concept evoked was that a first cycle of higher education would be followed by a second cycle, with an emphasis on research and autonomous work, which could be concluded with either a master or a doctoral degree. This structural concept was amended in the 2003 Berlin Declaration.

Prague 2001

In Prague, in 2001, the number of participating countries increased to 33 with the addition of Cyprus, Croatia and Turkey.

As the main reports [Lourtie, 2001, and EUA Trends 2001] prepared for the 2001 Prague ministerial conference showed, the introduction of the two-cycle degree system was one of the most controversial issues of the Bologna Process at this time. In a growing number of countries, two-cycle systems were being introduced, but the length and purpose of the two cycles varied considerably. Especially at master level, the Trends II report noted growing diversity, and stressed the 'need for higher education institutions in Europe to agree on some basic minimal requirements for Master degrees', to ensure that they would be postgraduate 'not only in terms of timing, but also of orientation and content' [EUA 2001, p. 47]. It is interesting to note that this call for definition of master degrees in terms of orientation and content has never fully been answered.

At bachelor level, programmes of 3-4 years were generally accepted, with a growing tendency towards 3-year bachelor programmes. The most controversial issue – especially to some universities and

([4]) The Bologna Declaration of 19 June 1999.

specific subject group representatives was the Bologna Declaration objective that first cycle degrees should also be relevant to the labour market ([5]). First-cycle qualifications were often seen as intermediate qualifications rather than entry points to the labour market. Even when 'Bologna' bachelor programmes were introduced, several countries maintained in parallel long one-tier programmes leading directly to a master degree, at least in certain disciplines.

In many aspects, the Prague Communiqué ([6]) emphasised what had already been agreed. Ministers welcomed the engagement of signatory countries in realising common degree structures, and asserted that 'building the European Higher Education Area is a condition for enhancing the attractiveness and competitiveness of higher education institutions in Europe' (p. 1). They reaffirmed the six objectives set in Bologna, encouraging higher education institutions to promote recognition. They welcomed the adoption of two-cycle structures in those countries where reforms had been made, and emphasised that 'Programmes leading to a degree may, and indeed should, have different orientations and various profiles in order to accommodate a diversity of individual, academic and labour market needs' (p. 2).

The Prague Communiqué also underlined the necessity of a credit system to allow not only for transferability but also accumulation of credits. It also stressed the importance of quality assurance for improving labour market access and in order to enhance 'compatibility, attractiveness and competitiveness of European higher education' (p. 3). The Communiqué also referred to the objective of creating 'a knowledge-based economy' (p. 3) and stressed that, 'the readability and comparability of European higher education degrees world-wide should be enhanced by the development of a common framework of qualifications' (p. 3).

Berlin 2003

Two years later, seven new European countries joined the process (Albania, Andorra, Bosnia and Herzegovina, the Holy See, North Macedonia, Serbia and Russia).

With the Berlin Communiqué ([7]), Ministers committed to the 'effective use of the system based on two cycles' (p. 3) as one of three intermediate priorities for the following two years.

They also encouraged the development of national qualifications frameworks and agreed to develop an overarching qualifications framework for the European Higher Education Area (see below).

A significant innovation outlined in the Berlin Communiqué ([5]) was 'to include the doctoral level as the third cycle in the Bologna Process' (p. 7). By making this statement, the conception of the Bologna degree structure was to change, as from then on it was clear that the second cycle referred to the master level. The rationale behind the inclusion of the doctoral level was also to acknowledge, 'the importance of research as an integral part of higher education across Europe'. Ministers also called for more mobility at the doctoral level and for more cooperation between institutions on doctoral studies and the training of young researchers.

Ministers also stressed the need to ensure clear articulation between cycles: 'First cycle degrees should give access, in the sense of the Lisbon Recognition Convention, to second cycle programmes. Second cycle degrees should give access to doctoral studies'.

Another topic introduced in Berlin was short-cycle higher education. The ministers asked the Follow-up Group 'to explore whether and how shorter higher education [might] be linked to the first cycle'. Highlighting the importance of qualifications frameworks for lifelong learning, ministers also 'call[ed] those working on qualifications frameworks for the European Higher Education Area to encompass the

([5]) A list of policy statements from European higher education stakeholder organisations between 1999-2003 can be found here: http://www.aic.lv/ace/ace_disk/Bologna/Statem/index.htm

([6]) Towards the European Higher Education Area, Prague Communiqué, 19 May 2001.

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

wide range of flexible learning paths, opportunities and techniques and to make appropriate use of the ECTS credits'.

For the first time, the priorities for action in the Bologna Process were to be monitored by a stocktaking exercise.

Bergen 2005

At the 2005 Bergen summit five more countries (Armenia, Azerbaijan, Georgia, Moldova and Ukraine) joined the process, and in the Communiqué ([8]) ministers 'note[d] with satisfaction that the two-cycle degree system [was] being implemented on a large scale, with more than half of the students being enrolled in it in most countries' (p. 2). They acknowledged that obstacles still existed to access between cycles and called for more exchange between stakeholders and governments to improve the situation concerning the employability of first-cycle graduates. The BFUG was tasked to continue the stocktaking exercise launched two years earlier and ministers announced that the implementation of the degree system, as one of the three intermediate priorities, was to be largely completed by 2007.

The most important development and legacy of the 2005 Bergen Ministerial conference was the overarching Framework of Qualifications for the European Higher Education Area (QF-EHEA). By adopting this framework, ministers were able to commit to developing national qualifications frameworks (NQFs) for higher education by 2010. NQFs should include a reference to the three-cycle structure and use generic descriptors based on learning outcomes, competences, and credits for the first and second cycle.

The Bergen Communiqué also paid special attention to doctoral studies after they had been added as third cycle in 2003. After doctoral studies had been added as the third cycle in 2003, the European University Association carried out its 'Doctoral Programmes Project' [EUA, 2005]. The findings were discussed in February 2005 at a Bologna seminar on doctoral programmes, jointly organised by Austria, Germany and the European University Association, which in turn resulted in a list of ten basic principles, later known as 'Salzburg principles'.

Building upon the EUA 'Doctoral Programmes Project' and the 'Salzburg principles' that resulted from the project and the related Bologna seminar, the Bergen Communiqué identified a number of elements of doctoral training:

- the advancement of knowledge through original research;
- the need for structured doctoral programmes with transparent supervision and assessment;
- a normal workload of 3-4 years full time;
- interdisciplinary training and the development of transferable skills, meeting the needs of the wider employment market.
- While the Salzburg principles referred to doctoral candidates as early stage researchers, the Bergen Communiqué considered participants in third-cycle programmes both as students and as early stage researchers, reflecting the diverse realities across Europe.

Ministers also stressed that overregulation of doctoral programmes was to be avoided and doctoral level qualifications 'to be fully aligned with the EHEA overarching framework for qualifications using the outcomes-based approach' (p. 4).

([8]) The European Higher Education Area – Achieving the Goals: Communiqué of the Conference of European Ministers responsible for Higher Education, Bergen, 19-20 May 2005.

London 2007

When meeting in London in 2007 the countries, which now also included Montenegro as a new member, renewed their commitments to mobility, employability and international attractiveness and in the Communiqué ([9]) reaffirmed their 'commitment to increasing the compatibility and comparability of (the) higher education systems' (p. 1). Ministers noted that an increasing number of students were enrolled in two-cycle programmes, that there were an increasing number of structured doctoral programmes and that 'structural barriers between cycles' could still be reduced (p. 2). They stressed that '[e]fforts should concentrate in the future on removing barriers to access and progression between cycles and on proper implementation of ECTS based on learning outcomes and student workload' (p. 2).

They also underlined the necessary focus on graduate employability and the need to gather respective data. They considered that more effort was needed to develop national qualification frameworks, which should be in line with the overarching Framework of Qualifications for the EHEA (QF-EHEA), and should be fully implemented by 2010. The stocktaking process was to 'address in an integrated way national qualifications frameworks, learning outcomes and credits, lifelong learning, and the recognition of prior learning' (p. 7).

Leuven/Louvain-la-Neuve 2009

In 2009, the ministers met in Leuven/Louvain-la-Neuve. Whereas other topics were now more prominent than degree structures, the communique ([10]) placed a particular emphasis on the role of joint degrees and opportunities for mobility. The ministers emphasised that 'within each of the three cycles, opportunities for mobility shall be created in the structure of the degree programmes. Joint degrees and programmes as well as mobility windows shall become more common practice' (p. 2).

Ministers also stressed 'the necessity for ongoing curricular reform geared toward the development of learning outcomes' (p. 3).

The stocktaking report prepared for the Leuven/Louvain-la-Neuve conference 2009 had shown that the 2010 deadline for the development of national qualifications frameworks would not be met. Ministers therefore agreed to postpone the deadline and to aim at having national qualifications frameworks 'implemented and prepared for self-certification' by 2012 (p. 3). Ministers also expressed the will for public authorities 'to make the career development of early stage researchers more attractive' (p. 4). As far as short-cycle higher education was concerned, the Communiqué affirmed that '[w]ithin national contexts, intermediate qualifications within the first cycle [could] be a means of widening access to higher education'. (p. 2)

Change in the first decade

Overall the first decade of the Bologna Process can be characterised as a period of extraordinarily rapid and convergent reforms in national degree systems. In some countries, reforms initiated through the Bologna Process discussions were understood and seized upon as a pragmatic and sensible policy path. However, in others, they were contested both within and outside academic communities. Indeed the Bologna Process stimulated widespread student protest (often supported by academic staff) in some countries, in particular from those who believed that reforms were driven by a neo – liberal policy agenda.

In many parts of Europe, particular elements of Bologna reforms were implemented together with other policy issues such as governance and funding reforms that were not part of the Bologna agenda.

([9]) Towards the European Higher Education Area: responding to challenges in a globalised world, London, 18 May 2007.

([10]) Leuven/Louvain-la-Neuve Communiqué: The Bologna Process 2020 – the European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009.

In many national systems, the rationale behind the Bologna reforms was often not communicated clearly and distinctly. In particular, the broader societal reasoning that lay behind the process was rarely debated outside of the higher education sector. Indeed a common criticism was the lack of engagement of policy-makers with either academic staff or with the labour market. Thus, although this was a decade of tremendous activity, with a great deal of movement in a convergent direction, the failure to communicate reform objectives effectively led to difficulties in implementation that were to continue in the coming years.

2.1.3. The Bologna Toolkit

The political commitments taken forward in this first decade were supported by different instruments. Three main tools were adopted and developed as countries set about introducing the reforms aimed at establishing the European Higher Education Area. The Diploma Supplement (DS) and the European Credit Transfer and Accumulation System (ECTS) both pre-date the Bologna Process but were picked up as key instruments to underpin its development. The third main tool that emerged and was promoted by the Bologna Process were qualifications frameworks. National qualifications frameworks (NQFs) were present in just a handful of national systems in the early years of the Bologna Process. However, NQFs aligned to a European framework became an important objective to support structural reforms.

The Diploma Supplement (DS)

The DS was developed in the 1990s to improve transparency and recognition of qualifications. It follows a standardised template containing a description of the nature, level, context, content, and status of the studies completed by the individual holding the original diploma. The goal is to increase the transparency of education acquired for the purposes of securing employment and facilitating academic recognition for further studies.

The Berlin Communiqué contained the concrete commitment that, ‘every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge. It should be issued in a widely spoken European language’ (p. 5). Ministers also called upon institutions and employers ‘to make full use of the Diploma Supplement, so as to take advantage of the improved transparency and flexibility of the higher education degree systems, for fostering employability and facilitating academic recognition for further studies’ (p. 5).

Following this commitment, the focus moved to implementation. Stocktaking and implementation reports have regularly monitored whether the Diploma Supplement was issued to every graduate automatically, free of charge and in a widely spoken European language. While progress has been continuous, it has also been very gradual. It has taken much longer than initially anticipated for the commitment to be met. The main reason for this delay is that issuing the DS was not purely a technical challenge – even though it was often perceived as such. Rather the DS was a key element in a paradigm shift towards a competence-based approach for higher education qualifications, and many higher education institutions and systems had to go through a long learning process in order to be able to understand the new paradigm and describe learning outcomes adequately.

By 2016/17, more than ten years after the first agreed date for full implementation, a quarter of the countries still failed to meet the ministerial commitment in full.

In 2018, Ministers approved a revised Diploma Supplement, following review within a working group between the Yerevan and Paris conferences. They also encouraged future use of the DS in a digital format.

National Qualifications Frameworks (NQF)

While the purpose of the Diploma Supplement is to provide more transparency on the content of individual higher education qualifications, qualifications frameworks promote the readability and comparability of qualifications themselves – both within and across countries. They are used for describing and clearly expressing the differences between qualifications in all cycles and levels of education. Qualifications frameworks are able to link together many of the structural elements – learning outcomes, credit systems, degree structures and quality assurance, for example – that play an important role in increasing the transparency of qualifications systems.

A few countries (Ireland and the United Kingdom – England and Scotland) had already started to develop a qualifications framework before the Bologna Process had been initiated. With the Prague Communiqué, ministers called for 'the development of a common framework of qualifications' (p. 3). Meanwhile, Denmark launched a national project on qualification description and hosted a Bologna seminar on 'Qualification Structures in Higher Education in Europe' in March 2003. Taking up the two central recommendations of the seminar, the 2003 Berlin Communiqué then encouraged all participating countries 'to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile' (p. 4). In addition, ministers agreed to develop an overarching qualifications framework for the EHEA, again with the ambition of ensuring comparability and readability.

The Joint Quality Initiative (JQI) had been set up in 2001 as a group of practical projects developing quality assurance collaboratively across countries in order to guide convergent development. The JQI played an important role in the development of the overarching qualifications framework, initially developing descriptors for the first and second cycle at a meeting in Dublin. After the Berlin Ministerial Conference the JQI was asked by the BFUG working group on qualifications frameworks to elaborate descriptors for the short cycle, and also agreed on descriptors for the third cycle. Indeed the biggest cause of disagreement regarding the overarching framework were short-cycle (or 'intermediate') qualifications, which existed in some EHEA countries and were opposed by others.

As a result of holding the initial meeting in Dublin, the set of higher education level descriptors came to be known as the Dublin Descriptors. They were generic in nature, concerning knowledge, application of knowledge, communication skills, problem solving skills and learning skills, and were proposed as the descriptors of the overarching EHEA qualifications framework (QF-EHEA).

On the basis of this work, the Bologna Follow-up Group working group prepared a report and a proposal for an overarching qualifications framework for the European Higher Education Area, which ministers adopted at the Bergen summit in May 2005:

'We adopt the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. We commit ourselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007. We ask the Follow-up Group to report on the implementation and further development of the overarching framework' (p. 2).

The adoption of the overarching QF-EHEA in 2005 also stimulated other developments. Notably in the context of the European Union's Lisbon strategy, the European Commission saw the utility of broadening the overarching framework to include other education levels and including all forms of learning. Thus while the Bologna Process was putting in place a European higher education qualifications framework, a parallel development was taking place to develop an overarching

qualifications framework for the European Union countries to cover general education as well as vocational education and training.

EU Member States adopted the European Qualifications Framework for lifelong learning (EQF) in 2008. The EQF is structurally compatible to the QF-EHEA, but covers all levels of education, and has different descriptors.

While each process was driven by its own logic, there was concern from the outset that the two overarching frameworks should be compatible and coherent. Ministers in Bergen therefore underlined 'the importance of ensuring complementarity' (p. 2) between the two frameworks and asked 'the European Commission fully to consult all parties to the Bologna Process as work progresses' (p. 2). Two years later, they noted with satisfaction that 'national qualifications frameworks compatible with the overarching Framework for Qualifications of the EHEA [would] also be compatible with the proposal from the European Commission on a European Qualifications Framework for Lifelong Learning' (p. 3).

While national qualifications frameworks have since always been able to self reference to both the QF-EHEA and EQF, it has never been simple to explain – especially outside the EHEA and to a non-specialised public – why Europe requires two overarching qualifications frameworks.

The Bergen Communiqué set the expectation that NQFs could be in place by 2007. However, work on developing NQFs has not always proceeded as rapidly and smoothly as initially expected. At the London summit 2007, ministers noted 'some initial progress [had] been made towards the implementation of national qualifications frameworks, but that much more effort [was] required' (p. 3) They committed themselves 'to fully implementing such national qualifications frameworks, certified against the overarching Framework for Qualifications of the EHEA, by 2010' (p. 3).

Few countries met the 2010 milestone. In 2012, ministers took a step to keep the two overarching European frameworks in perspective by committing to referencing first, second and third cycle qualifications against EQF levels 6, 7 and 8 respectively. However only about a half of the participating countries had managed to self-certify to the overarching QF-EHEA by the time of the 2015 ministerial conference in Yerevan.

Progress on NQFs has been difficult to achieve in recent years in the face of different challenges for different countries. For some countries, the main task is to develop and implement the framework itself. For those with a framework in place, the challenge is to ensure its relevance and utility for users. This led ministers in Yerevan (2015) to draw attention to the need to review and revise NQFs, paying attention to issues such as flexible learning paths. Meanwhile the QF-EHEA was extended in the Paris Communiqué to include short-cycle higher education as a self-standing qualifications level.

While progress on NQFs has been made in recent years, deeper problems have also held back progress. In particular, shifting to a student-centred higher education culture, coming to terms with the abstract nature of descriptors, including higher education and vocational qualifications and reconciling the different positions of interest groups are all issues that have slowed down progress at national level.

Ensuring that NQFs help to structure the Bologna degree system is an integral part of the key commitments for the EHEA that were set in Paris 2018. The hope is that newly-established peer learning activities facilitating exchange of experience could prove very beneficial for those countries still in the process of developing and using their national qualifications framework effectively.

European Credit Transfer and Accumulation System (ECTS)

The European Credit Transfer System (ECTS) was already mentioned in the 1998 Sorbonne Declaration as a credit system that allowed credits to be acquired at different European universities and throughout life. However, at this stage, the system had mostly been developed as a tool to facilitate student mobility in the context of the Erasmus programme, and its potential as an accumulation system for re-structuring and reforming degree programmes had yet to be realised.

In the follow-up to the Bologna Declaration, the first Bologna seminar, held in Leiria (Portugal) in November 2000, highlighted the need to develop an integrated credit system for lifelong learning and to find ways to recognise prior learning and prior experiential learning. The European Credit Transfer System (later renamed to European Credit Transfer and Accumulation System) received broad support from policy makers – also with the Prague Communiqué – and was the only candidate for this much-needed role.

ECTS has become the cornerstone of the implementation of curriculum reform, focusing on workload and learning outcomes. The innovative Tuning Project (Tuning Educational structures in Europe ([11])) played an instrumental role in taking the concepts of the Bologna Process and translating them into the reality of higher education institutions. Tuning was initially developed in 2000 and launched as a pilot project that developed in phases (2001-2002, 2003-2004, 2005-2006 and 2006-2009) run by and for higher education institutions. It developed a systematic approach that could be reproduced in different higher education institutions when (re-)designing curricula using ECTS. The focus was on specific subject areas, developing learning outcomes and reference points for common curricula and the emphasis was always on enhancing the quality of degree programmes.

Meanwhile the EUA, supported by the European Commission, also played a key role in promoting ECTS and the Diploma Supplement within higher education institutions. The EUA developed and coordinated projects gathering ECTS and DS counsellors to exchange and develop expertise and to promote the tools within higher education institutions. There was a strong overlap of counsellors with participants and leaders of the Tuning Project. This led to effective development and embedding of concepts within higher education institutions.

As the Bologna Process has evolved, the functions of ECTS have developed. It now supports the recognition of learning outcomes earned at another institution at home or abroad, is a key instrument for transparent curriculum design and can accommodate both non formal and informal learning including through digital means. Essentially the ECTS system enables all forms of learning to be recognised within the formal higher education system.

ECTS has proved to be a sufficiently flexible tool for developing student-centred and outcome-oriented curricula, replacing the traditional input-oriented concepts of curricula that were previously dominant. The main change is a move away from academic staff defining curricula in terms of the content that they teach towards a conception based on the desired learning outcomes for students and the workload required to achieve them. Within the ECTS system, workload is understood comprehensively as all activities (such as individual study, laboratory work as well as learner-teacher contact hours) required to achieve learning outcomes. ECTS has been a building block for this form of curriculum development based on credit accumulation, and has also had the positive impact of making programmes more transparent.

The uptake in the use of ECTS in Europe has been very significant during the Bologna period. In 1999/2000, only a handful of countries reported that they used ECTS for credit accumulation and transfer, while 31 countries did not use ECTS for either purpose. However, by 2016/17, 45 higher

([11]) For further information, see http://www.unideusto.org/tuningeu

education systems reported using ECTS for both accumulation and transfer in all of their first and second-cycle programmes.

Correct and consistent implementation of ECTS is a matter of vital importance. As the ECTS system has become embedded in more higher education institutions, the difficulty of ensuring coherent use of ECTS has increased. This was the reason why the European Commission invested resources in the development of a new ECTS Users Guide in 2015 that was adopted by the EHEA ministers in Yerevan 2015.

The 2015 ECTS Users' Guide offers guidelines for implementing ECTS and links to useful supporting documents. It is based on the work done both within the Bologna Process and in individual countries, to help the academic community and other stakeholders in higher education to move in the direction of the changes advocated by the Bologna Process.

The challenges of implementing ECTS correctly are not simple. Understanding and developing learning outcomes, as well as developing reliable measures of workload are challenges that require major effort, and continuous training and exchange within and between higher education institutions. Nevertheless, although there remains considerable work to be done to ensure that ECTS is correctly used, the fact that it has become ubiquitous in the EHEA is a major advance for 48 systems comprised of autonomous higher education institutions, and is a key indicator of the progress achieved through the Bologna Process.

2.1.4. The EHEA since 2010: consolidating reforms

At the end of the first decade of national reforms, the European Higher Education Area (EHEA) was officially launched in 2010. This moment was celebrated at a conference in Budapest and Vienna, and Kazakhstan became the next country to join the process, bringing the number of participating countries to 47.

Bucharest 2012

The next ministerial conference took place in Bucharest in 2012. Under the title, 'Making the Most of Our Potential: Consolidating the European Higher Education Area' the conference was strongly influenced by the diverse national responses to the 2008 European economic and financial crisis which had affected higher education systems in different ways. While some systems faced significant financial cuts, others were receiving additional investment as part of national recovery strategies.

In this climate, focus returned to three cycle degree structures. In the Communiqué ([12]), the ministers underlined their commitment 'to strive for more coherence between (their) policies, especially in completing transition between the three cycle system, the use of ECTS credits, the issuing of Diploma Supplements (…)' (p. 1). On the basis of a study prepared by the European University Association (EUA) on master degrees (EUA, 2009), ministers also indicated that '[k]eeping wide diversity and simultaneously increasing readability, [they] might also explore further possible common principles for master programmes in the EHEA, taking account of previous work' (p. 3).

With regard to the third cycle, ministers agreed to 'sustain a diversity of doctoral programmes' (p. 2) and to 'explore how to promote quality, transparency, employability and mobility in the third cycle, as the education and training of doctoral candidates has a particular role in bridging the EHEA and the European Research Area (ERA)' (p. 3).

Ministers also welcomed progress in developing qualifications frameworks but encouraged countries that had not completed their NQF 'to redouble their efforts and to take advantage of the support and

([12]) Making the Most of Our Potential: Consolidating the European Higher Education Area. Bucharest Communiqué, 27 April 2012.

experience of others in order to achieve this goal' (p. 3). Countries were also invited to 'submit a revised roadmap' (p. 5). At the same time, the Bucharest Communiqué acknowledged that more work was needed to realise 'the full benefits of qualifications frameworks' (p. 3).

For the first time, ministers also explicitly committed to 'referencing first, second and third cycle qualifications against EQF levels 6, 7 and 8 respectively, or against equivalent levels for countries not bound by the EQF' (p. 3). Even though not covered by the Bologna Process and the QF-EHEA, school leaving qualifications giving access to higher education were also mentioned. Where they are included in national qualifications frameworks, they are considered to be of EQF level 4 (or equivalent levels for countries not bound by the EQF).

Again the issue of short cycle qualifications was mentioned but with no significant innovation. Ministers agreed to 'explore how the QF-EHEA could take account of short cycle qualifications (EQF level 5)' and 'encourage[d] countries to use the QF-EHEA for referencing these qualifications in national contexts where they exist' (p. 3).

The Bucharest Communiqué also shifted focus and attention to learning outcomes, stressing the importance of 'qualifications frameworks, ECTS and Diploma Supplement implementation based on learning outcomes' (p. 5). The text also indicated that there was room for improvement not only with the development of learning outcomes but also with regard to their 'understanding and practical use', which was 'crucial to the success of ECTS, the Diploma Supplement, recognition, qualifications frameworks and quality assurance – all of which are interdependent' (p. 3). Ministers also called upon higher education institutions 'to further link study credits with both learning outcomes and student workload, and to include the attainment of learning outcomes in assessment procedures' (p. 3).

Ministers also agreed to 'work to ensure that the ECTS Users' Guide fully reflects the state of on-going work on learning outcomes and recognition of prior learning' (p. 3).

The Bucharest conference was a moment where there was increased awareness that, despite the scale of reforms that had been undertaken across the EHEA, implementation had not been comprehensive within each system, and that problems may arise in connecting systems as a result of diverse implementation practice. This was indeed the main rationale for revising the ECTS Users' Guide. The idea was to do everything possible to ensure that all countries and higher education institutions were working on the basis of a clear and common understanding.

Yerevan 2015

The EHEA countries expanded to its current total of 48 with the addition of Belarus in Yerevan.

The Yerevan Communiqué ([13]) was notable for the adoption of the ECTS Users' Guide. It also agreed on the commitment 'to include short cycle qualifications in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA), based on the Dublin descriptors for short cycle qualifications and quality assured according to the ESG, so as to make provision for the recognition of short cycle qualifications in their own systems, also where these do not comprise such qualifications' (p. 4).

Ministers also agreed 'to review national qualifications frameworks, with a view to ensuring that learning paths within the framework provide adequately for the recognition of prior learning' (p. 4). This indicates the continuous nature of development of qualifications frameworks with the necessity to ensure that frameworks are regularly reviewed and revised.

([13]) Yerevan Communiqué, 15 May 2015.

Paris 2018

The most recent meeting of ministers was held in Paris in May 2018. At this conference, in the Communiqué ([14]) ministers renewed their commitment 'to ensure full implementation of ECTS, following the guidelines laid down in the 2015 ECTS Users' guide' (p. 2).

Ministers also approved a revised Diploma Supplement and committed to 'working for its adoption in identical versions within the respective frameworks of the Lisbon Recognition Convention and Europass' (p. 2). This wording was required as the Diploma Supplement, although adopted as a tool for the EHEA, is also a constitutive element of the Lisbon Recognition Convention and of Europass, and revisions therefore also require agreement in these frameworks. The renewed focus on the DS also saw the encouragement of a digital format with ministers supporting 'higher education institutions to pursue further student data exchange in a secure, machine-readable and interoperable format, in line with data protection legislation' (p. 2).

After many years of discussion, ministers agreed on 'short cycle qualifications as a stand-alone qualification level within the overarching Qualifications Framework of the European Higher Education Area (QF-EHEA)' (p. 2) as envisaged and prepared by the Yerevan Communiqué. Given that not all countries had or were planning to introduce short cycle qualifications, the Paris Communiqué added that it was up to each country to decide 'whether and how to integrate short cycle qualifications within its own national framework' (p. 2).

A major development signalled in the Paris Communiqué was the introduction of a structured peer support approach for the three key commitments of the Bologna Process – degree structures, quality assurance and recognition. These are the three policy areas that provide the foundations of an open EHEA. Without understandable degree structures, guarantees of quality of provision and easy processes to recognise learning across national borders, the notion of a European Higher Education Area fails to make sense.

Work is still required on implementation of these key commitments. Partly, the explanation for this is that countries have joined the Bologna Process at different times, and that the countries that have joined the EHEA more recently have national systems that are at a different stage of development compared to the original Bologna Process member states. However, it may also be the case that not all aspects of required action are clearly understood by all stakeholders – including some higher education institutions. A further aspect is that implementation of reforms may have led to the emergence of new questions and issues to resolve. For example is the first cycle meeting expectations for both labour market employability and study progression? How can recognition of short-cycle degrees be achieved when countries have different understandings of such qualifications? Does the increasing variety of master degrees pose new challenges?

New actions, supported by the European Commission, have been developed since the 2018 Paris Ministerial Conference to provide opportunities for peer learning to take place between EHEA countries. These peer support activities are very much in the Bologna spirit of voluntary cooperation, and countries have responded very positively to the opportunity to work together to address issues. A number of international activities and projects – bilateral country cooperation, regional cooperation and multi-lateral European projects – have been set up for countries to learn more about the specific reform processes undertaken by other countries. By exchanging people, ideas and practice, countries facing serious challenges may find a suitable path for their national reforms, while those more advanced in the process will find innovative ways to fine-tune their systems.

([14]) Paris Communiqué, 25 May 2018.

Student-centred learning remains at the heart of these activities, as it does at the heart of Bologna degree structure reforms. Learning outcomes and student workload should be at the centre of three-cycle programme design, and students should always be considered as active participants in their own learning. They should be able to plan their learning paths on the basis of clear information in order to acquire the knowledge, skills and competences that meet both their personal goals and societal needs. While the higher education environment evolves, these principles remain valid.

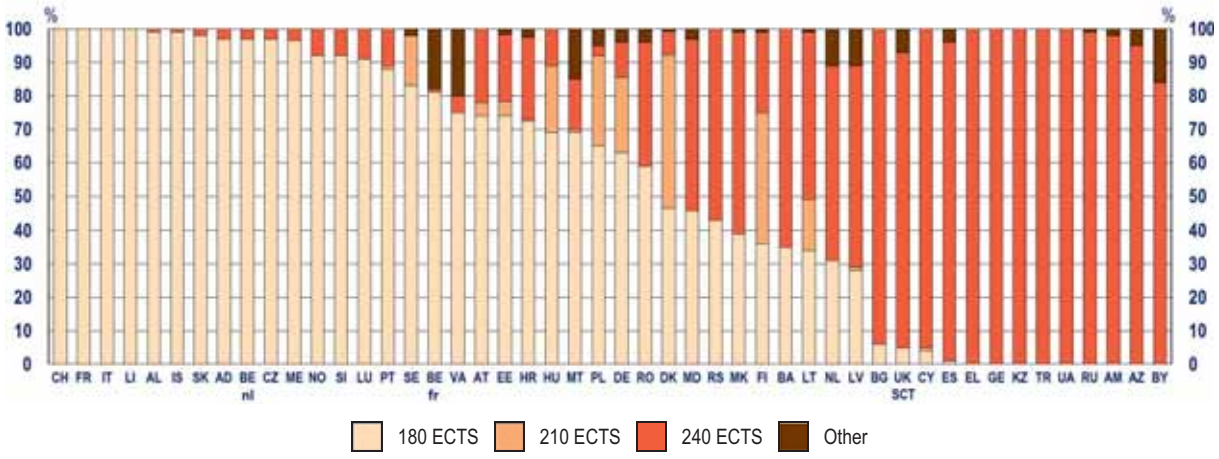
2.2. Qualitative indicators

This section examines the way in which the commitments to degree structure reform have been implemented. It shows the current reality of programmes in the different cycles of higher education, highlighting the main trends. It also shows the extent to which programmes that do not conform to the Bologna Process models continue to exist.

2.2.1. Workload of first cycle programmes

Figure 2.1 depicts the workload of first-cycle programmes expressed in ECTS credits.

Figure 2.1: Share of first cycle-programmes with a workload of 180, 210, 240 or another number of ECTS credits, 2018/19



Source: BFUG data collection.

The 180 ECTS workload is the most widespread in the first cycle, characterising the majority of programmes in more than half of all EHEA countries. In France, Italy, Liechtenstein and Switzerland, this model applies to all first-cycle programmes, and in a further 10 systems, 90 % or more of first-cycle programmes are concerned.

The 240 credits model is also quite widespread, applying to most first-cycle programmes in around one-third of EHEA countries. Georgia, Greece, Kazakhstan, Turkey and Ukraine apply this model to all first-cycle programmes, whereas in Armenia, Azerbaijan, Bulgaria, Cyprus, Spain and Russia, it characterises more than 90 % of first-cycle programmes.

The geographical distribution of the two main models suggests that in south-eastern Europe and in a number of post-Soviet states, first-cycle programmes generally carry a more substantial workload compared to other parts of the EHEA.

The existence of the 210 ECTS first-cycle model is reported from only around a quarter of all EHEA countries, but in most of them, this model concerns only up to 5 % of all first-cycle programmes.

Denmark, Finland, Germany, Hungary and Poland are exceptions to this, with 20 % or more of all first-cycle programmes applying this workload pattern.

Other workload models are relatively uncommon in the first cycle, and normally concern no more than 10 % of all first-cycle programmes. The exceptions to this are Latvia, the Netherlands (both 11 %), Malta (15 %), Belarus (16 %), the French Community of Belgium (18 %) and the Holy See (20 %).

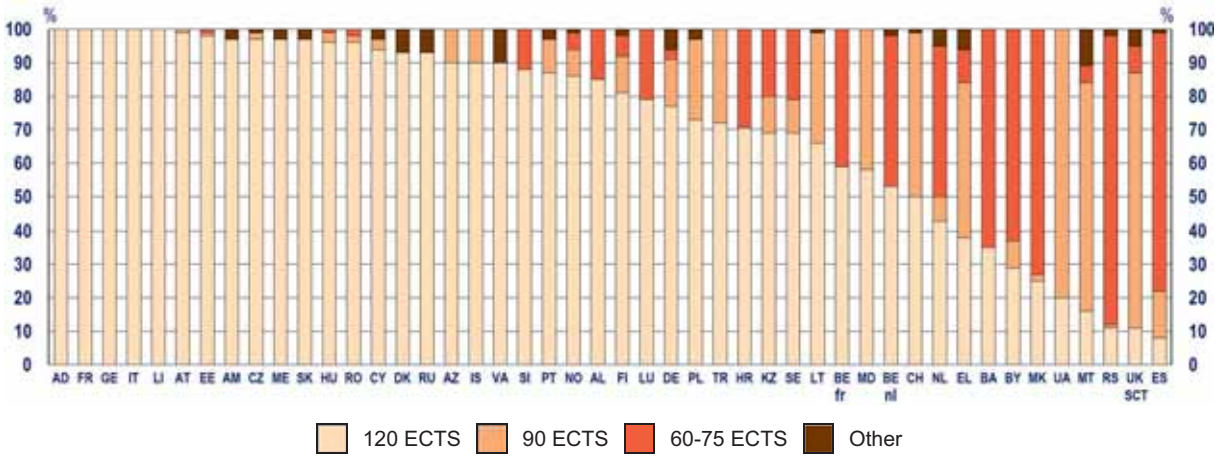
Comparison with the previous reporting (see the 2018 Bologna Process Implementation Report, p. 96) shows only minor variations in the use of different workload models in the first cycle. The most substantial changes concern Belarus and Kazakhstan, where first-cycle programmes with 'other' ECTS workload either substantially decreased (from 49 % to 16 % in Belarus) or disappeared (Kazakhstan) in favour of the 240 ECTS model.

Like the previous Bologna Process Implementation Reports, this report demonstrates that there is no single model of first-cycle programmes in the EHEA. Nevertheless, the majority of first-cycle programmes have a workload corresponding to 180 ECTS credits. Another widespread model is the 240 credits model, which applies to most first-cycle programmes in around one-third of all EHEA countries.

2.2.2. Workload of second cycle programmes

Figure 2.2 depicts the workload of second -cycle programmes expressed in ECTS credits.

Figure 2.2: Share of second-cycle programmes with a workload of 60-75, 90, 120 or another number of ECTS credits, 2018/19



Source: BFUG data collection.

Notes:

The figure does not take into account integrated/long programmes, i.e. programmes leading directly to a second-cycle degree. For more details on these programmes, see Section 2.2.4

In the second cycle, the 120 ECTS model is by far the most widespread, being present in virtually all EHEA systems. It is the sole second-cycle model in Andorra, France, Georgia, Italy and Liechtenstein, and it applies to most second-cycle programmes in around three-quarters of all EHEA countries.

The 60-75 ECTS model is present in around half of all EHEA countries, dominating in Belarus, Bosnia and Herzegovina, the Netherlands, North Macedonia, Serbia and Spain. The 90 ECTS model is less widespread, but still present in more than half of all EHEA countries, and dominating in Greece, Malta, Ukraine and the United Kingdom (Scotland). The share of second-cycle programmes with a workload outside the 60-120 ECTS interval generally does not exceed 10 %.

Some countries have registered substantial changes in the workload of their second-cycle programmes in recent years. In most of these cases, the 120 ECTS pattern has become more prominent. For example, in Montenegro, following the adoption of a new higher education law (2017), the previously dominant 60 ECTS model has been almost fully replaced by the 120 ECTS pattern. Albania has phased out programmes with 90 ECTS credits and most programmes now apply the 120 ECTS pattern (although some professional masters programmes have 60 ECTS). In Kazakhstan, in 2016/17, all second-cycle programme were reported under 'other' workload patterns, whereas at present, most programmes comprise 120 ECTS credits. In Belarus, the 120 ECTS pattern now has a stronger position compared to the previous reporting, although the 60 ECTS model still dominates.

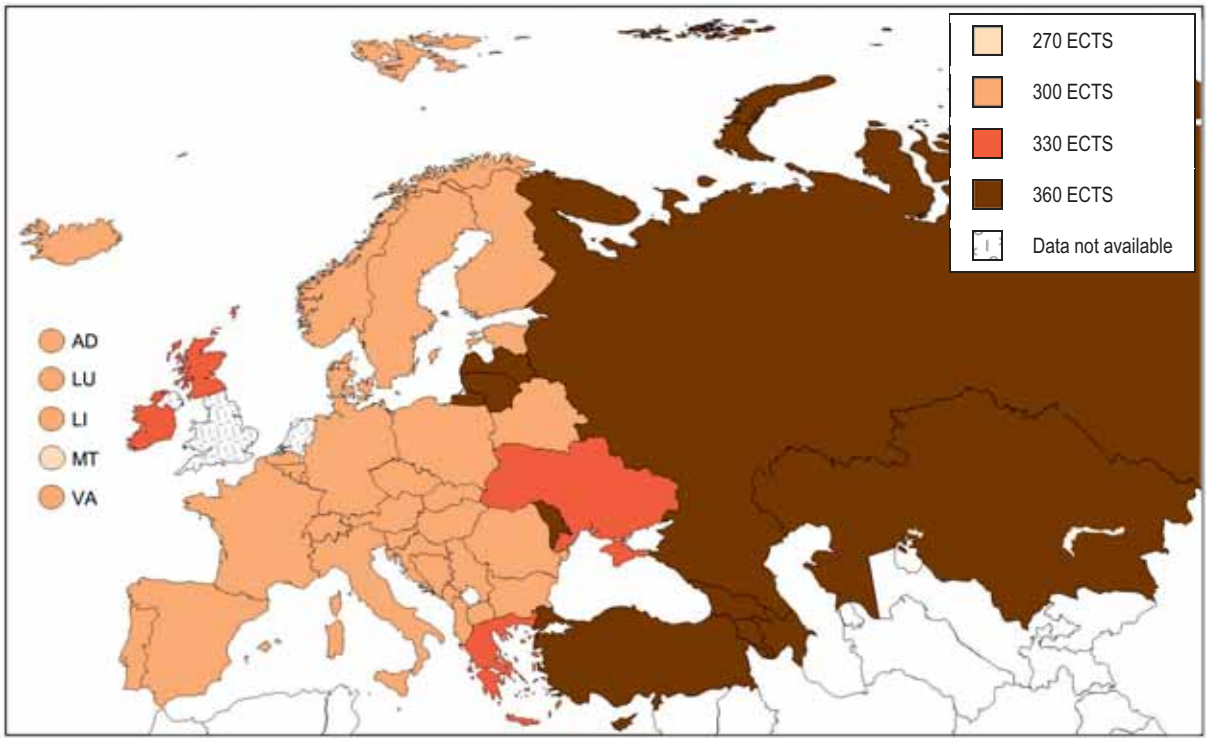
Some additional changes since the last reporting reflect differences in calculating the distribution of ECTS models across higher education programmes rather than structural reforms. For example, Malta used to include data on higher education 'awards', which correspond to short, accredited courses starting at 1 ECTS. This implied a high proportion of second-cycle programmes outside the 60-120 ECTS interval (see the 2018 Bologna Process Implementation Report, p. 97). Now, however, only full higher education degree qualifications are included in the reported distribution of programmes.

In conclusion, the workload of second-cycle programmes is most commonly set at 120 ECTS credits. The second most widespread model in the second cycle is the 60-75 ECTS model.

2.2.3. Combined workload of first- and second-cycle programmes

Building on the data depicted in the two previous figures, Figure 2.3 looks at *the most common* combined (first and second cycle) workload.

Figure 2.3: Most common total workload of first- and second-cycle programmes, 2018/19



Source: BFUG data collection.

As the figure shows, such combined workload corresponds to 300 ECTS credits in around three-quarters of all EHEA countries. In the eastern part of the EHEA, the most common workload is often more substantial, corresponding to 360 ECTS credits, which is mainly due to a higher workload of first-cycle programmes (see Figure 2.1). There are only a few exceptions to the 300 and 360 ECTS

patterns. These are Greece, Ireland, Ukraine and the United Kingdom (Scotland) with 330 ECTS credits, and Malta with 270 ECTS credits.

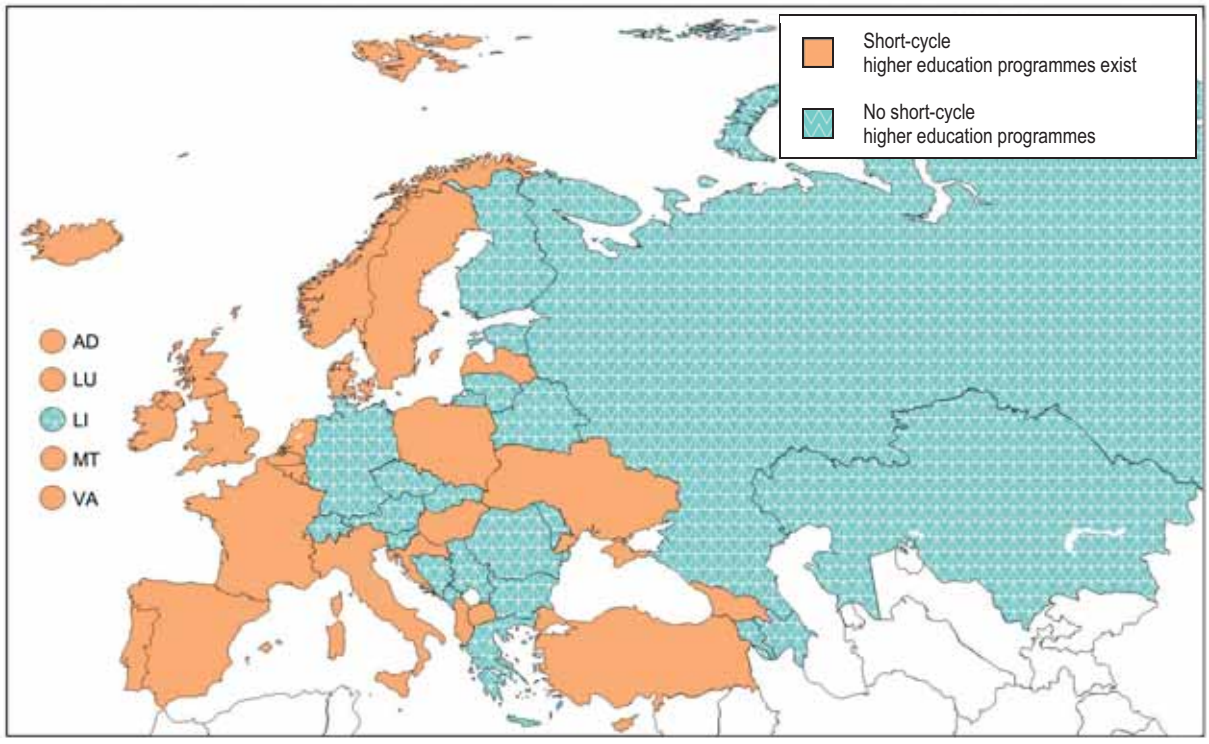
It is noteworthy that in some higher education systems, the most common combined workload is followed closely by another widespread workload pattern. For example, in the Flemish Community of Belgium, Switzerland and Denmark, the 300 ECTS pattern is only slightly more common than other workload arrangements: the 240, the 270 and the 330 ECTS, in the three systems respectively.

In addition, it is not always possible to derive the most common workload by combining mechanically data displayed on Figures 2.1 and 2.2 since some credit combinations might be uncommon. This applies, in particular, to binary higher education systems, i.e. systems with several higher education sectors. For example, in Finland, first cycle workload generally corresponds to 210 or 240 ECTS, and most graduates do not apply for second cycle studies. Those who decide to enter a second-cycle programme may enter a 90 or 60 ECTS programme (university of applied sciences) or 120 ECTS programme (university). The Netherlands – another binary higher education system – reports a comparable situation.

2.2.4. Short-cycle programmes

After many years of discussion about the place of short-cycle higher education programmes in the EHEA, the 2018 Paris Communiqué saw the short cycle eventually integrated into the overarching framework of qualifications for the European Higher Education Area (QF-EHEA). Nevertheless, countries in the EHEA are far from reaching a common understanding of short-cycle higher education comparable to the situation of the other three cycles. Figure 2.4 shows the presence of short-cycle programmes considered as part of higher education in national systems.

Figure 2.4: Presence of short-cycle programmes considered as part of higher education, 2018/19



Source: BFUG data collection.

Notes:

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

Short-cycle programmes that are considered as part of higher education exist in around half of all EHEA systems. Compared to the previous mapping (see European Commission/EACEA/Eurydice, 2018, p. 101), two countries – Poland and Serbia – have introduced changes in this area. More specifically, Poland has adopted a legal framework which introduces this type of provision and designates non-university higher education institutions (higher schools of professional education) as the programme providers. Similarly, Serbia has adopted the short cycle in its new Law on Higher Education (March 2019).

The concept of 'short-cycle higher education' does not overlap fully with 'short-cycle tertiary education' (ISCED 5). Indeed around a quarter of all EHEA countries do not report the existence of short-cycle higher education programmes, although Eurostat data indicate that students are enrolled in ISCED 5 programmes. In some of these countries, ISCED 5 programmes involve only a small number of all ISCED 5-8 students – 300 in Germany, 1 000 in Czechia, 3 000 in Slovakia, 4 100 in Switzerland (see Chapter 1, Figure 1.1). In other instances, the student numbers are substantial (2 941 000 in Russia, 94 000 in Kazakhstan, 76 000 in Austria, 30 000 in Azerbaijan, 15 000 in Moldova, 11 000 in Slovenia, and 5 700 in Armenia). Short-cycle tertiary education (ISCED 5) not recognised as higher education commonly comprises various vocational programmes (see European Commission/EACEA/Eurydice, 2018, p. 101).

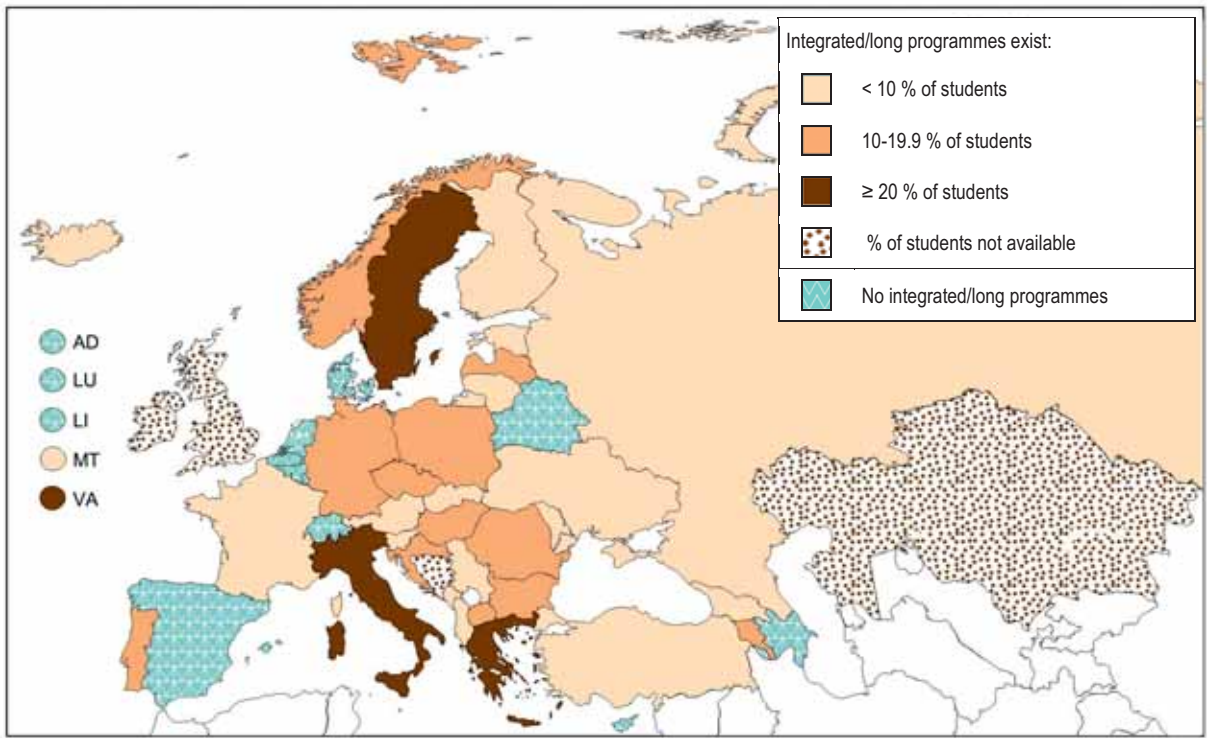
Thus alongside the three main cycles, around half of all EHEA systems offer short-cycle higher education programmes. In other EHEA systems, the short cycle is either not offered, or short-cycle programmes (ISCED 5) are not recognised within the higher education system. When not recognised as 'higher education', short-cycle programmes are usually part of a vocational education system. Overall, the short cycle remains a complex field covering a range of programmes that differ in terms of content, orientation and purpose.

2.2.5. Integrated/long programmes leading to a second cycle degree

The Bologna Process has been promoting a three-cycle structure consisting of undergraduate (first-cycle), graduate (second-cycle) and doctoral (third-cycle) programmes, with the possibility of intermediate (short-cycle) qualifications linked to the first cycle. This structure – with or without short-cycle qualifications – is now in place across all the EHEA countries. However, the harmonised overall structure of degrees does not necessarily imply the same workload. Moreover, the main degree structures promoted within the Bologna Process often co-exist with other structures. This section discusses these complementary structures in two parts. First, it focuses on integrated (long) programmes leading directly to a second-cycle degree; second, it discusses additional programmes and related qualifications which do not fully fall under the main Bologna-degree scheme.

Figure 2.5 depicts integrated/long programmes leading directly to a second-cycle degree.

Figure 2.5: Presence of integrated/long programmes leading to a second-cycle degree and the percentage of students in these programmes, 2018/19



Source: BFUG data collection.

Notes:

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

In 2018/19, these programmes exist in most EHEA systems; yet, they involve different proportions of students. In 17 systems, only up to 10 % of all first- and second-cycle students are enrolled in integrated/long programmes. In 12 systems, the proportion is situated between 10 % and 19.9 %. Greece, the Holy See, Italy and Sweden report the highest proportion of students in integrated programmes with 20 % and above (e.g. 23 % in Italy).

As the 2018 Bologna Process Implementation Report indicates (pp 109-110), most dominant fields for integrated programmes are medicine, dentistry and veterinary medicine, followed by architecture, pharmacy, teacher training, engineering, law and theology. Other reported fields include psychology, speech and language therapy, massage therapy, nursing and midwifery, fine arts, chemistry, physics, biology, mathematics, statistics, computer science, agriculture, horticulture, forestry, fish science, landscape architecture, and conservation and restoration of cultural heritage.

The presence of long or integrated/long programmes is most commonly justified by the Directive on regulated professions 2005/36/EC ([15]) that defines qualification requirements for specific professions (medicine, dentistry, veterinary medicine, pharmacy and architecture), including the duration of training. Beyond regulatory motives, top-level authorities put forward other reasons to explain the existence of integrated programmes, including student choice and demand, as well as historical legacy and traditions (European Commission/EACEA/Eurydice, 2018, p. 111).

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

2.2.6. Programmes outside the Bologna-degree structure

Alongside programmes falling under the three-cycle structure (including the short cycle) and integrated (long) programmes leading directly to a second-cycle degree, higher education systems in the EHEA commonly offer additional programmes and qualifications. Among these, the most known are various specialisations building on studies related to regulated professions (e.g. medical studies), as well as teacher-training programmes building on degrees achieved in various areas ([16]). While excluding such provision, this section discusses higher education programmes and related qualifications depicted in Figure 2.6 that exist in parallel to the main degree arrangements promoted within the Bologna Process.

When considering the entry requirements and qualifications awarded upon completion, the programmes in question can be clustered into four categories:

1. Intermediate programmes between first- and second-cycle studies, i.e. programmes requiring a first-cycle degree for entry, but not leading to a second-cycle qualification;
2. Intermediate programmes within the second cycle, i.e. programmes requiring a first-cycle degree for entry, leading to a second-cycle qualification, which, however, generally ([17]) do not open access to the third cycle;
3. Intermediate programmes between second- and third-cycle studies, i.e. programmes requiring a second-cycle degree for entry, but not leading to a third-cycle qualification;
4. Other programmes outside the Bologna-degree structure ([18]).

Programmes falling under the first category usually include various short specialisations after first-cycle studies. For example, in Belgium, there are specialised bachelors (or 'bachelor after bachelor') of 60 ECTS building on the first cycle. Similarly, Ireland offers a Higher Diploma, which is a qualification building on a bachelor degree. The qualification is normally awarded after a one-year programme (60 ECTS credits) and its completion is situated at the same level as first-cycle studies. Further programmes falling under this category exist in Andorra, Austria, Finland, Georgia, Hungary and Romania.

The second category includes programmes recognised (within national contexts) as the second cycle, but not opening access to the third cycle. This type of provision commonly comprises various vocational programmes. For example, Albania, North Macedonia and Serbia offer professional second-cycle programmes conceived in direct relation to the labour market. Contrary to academically oriented second-cycle programmes, these programme do not open access to doctoral studies. In Ireland, there is a Postgraduate Diploma, which is a minor award (60 ECTS credits) at level 9 of the Irish National Framework of Qualifications (EQF level 7). Students are generally expected to exit with this award, rather than to pursue doctoral studies. Malta offers second-cycle qualifications known as Postgraduate Certificate (30 ECTS) and Postgraduate Diploma (60 ECTS), which both require a first-cycle degree for entry, but do not open access to the third cycle. Postgraduate certificates are also in place in the United Kingdom – Scotland, where they also comprise 30 ECTS credits and target those already in a career. A comparable provision is found in Italy (*Master universitario di primo livello*), where it aims at providing students with advanced knowledge in specific fields or further professional training for the labour market. Austria, Norway and Turkey report further programmes that belong to this cluster.

([16]) The latter provision is referred to as 'consecutive model' of initial teacher education. For more details on this model and its presence in European countries, see European Commission/EACEA/Eurydice, 2015a, pp. 32-36 for lower secondary education teachers, and European Commission/EACEA/Eurydice, 2013, pp. 23-24 for pre-primary, primary and upper secondary education teachers.

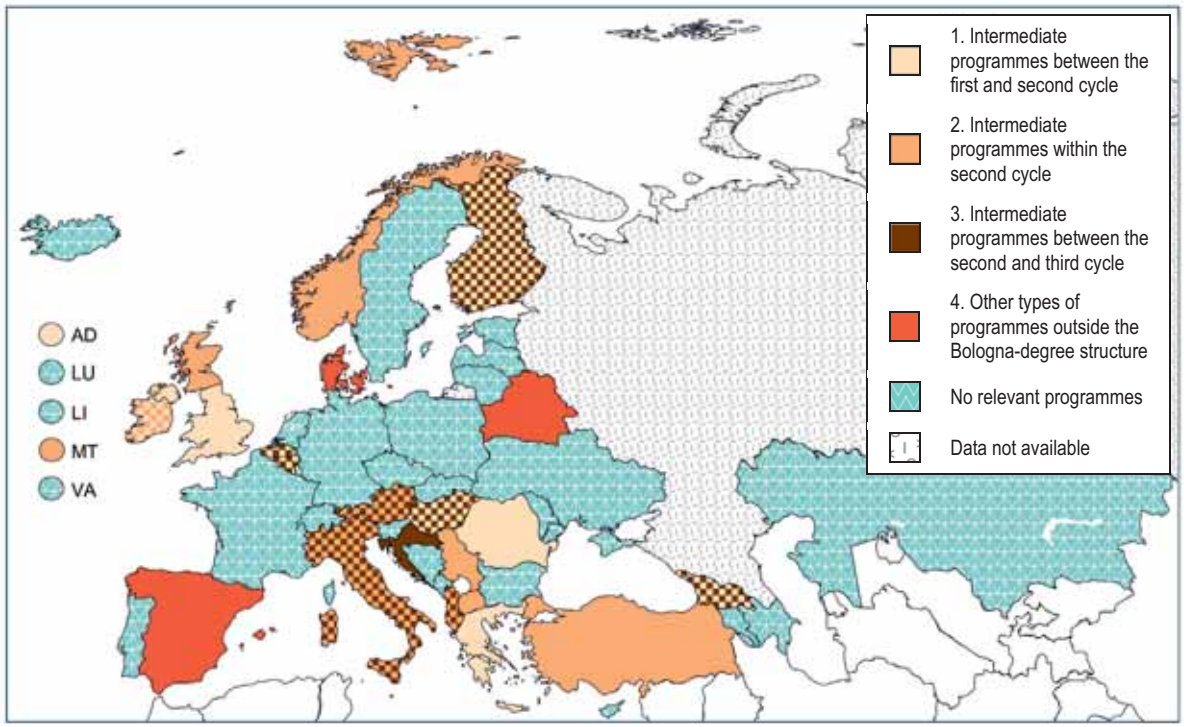
([17]) In some countries, based on the recognition of prior non-formal and informal learning (RPL), there might be possibilities for graduates of these programmes to integrate third-cycle studies. However, the programmes in question are not conceived to prepare for doctoral studies. Thus, possibilities for the RPL are not considered here.

([18]) Integrated (long) programmes are not considered here (for further details on these programmes, see Figure 3.14).

Programmes in the third category are comparable to those reported under the first one, the only difference being that they concern specialisations building on second-cycle studies. In Belgium, for instance, there are not only specialised bachelors (see above), but also specialised master (or 'master after master'). In Croatia, second-cycle studies can be followed by one of around 300 'postgraduate specialist programmes', including around 90 programmes in social sciences. Finland offers a *licenciate* degree, which is an intermediate qualification situated between master and doctoral studies. Students can take this qualification prior to their doctorate, but in reality few actually do, and the trend is diminishing. Further examples of intermediate programmes building on second-cycle studies can be found in Albania, Georgia, Hungary and Italy.

There are also programmes that cannot be associated with any of the above clusters; still, they do not fully fall out of the three-cycle degree system. More specifically, in Belarus, there are programmes lasting up to three years and leading to an academic degree – Doctor of Sciences. This qualification builds on the degree Candidate of Sciences, which is PhD-equivalent. In Spain, there are *títulos propios*, which are non-official higher education qualifications offered directly by universities. They have varying entry requirements, ranging from completed higher education studies (at different levels) to working experience.

Figure 2.6: Programmes outside the Bologna-degree structure (other than integrated/long programmes), 2018/19



Source: BFUG data collection.

Notes:

Within the Bologna Process, ministers committed themselves to implementing the three-cycle degree system, where first-cycle degrees (awarded after completion of higher education programmes lasting a minimum of three years) should give access, in the sense of the Lisbon Recognition Convention ([19]), to second-cycle programmes. Second-cycle degrees should give access to doctoral studies (the third cycle). Within the three-cycle degree system, ministers recognised the possibility of intermediate qualifications (the short cycle) linked to the first cycle.

When referring to programmes outside the Bologna-degree structure, the figure refers to programmes that do not fully comply with the above ministerial engagements. Integrated/long programmes, which can also be seen as programmes outside the Bologna-degree structure, are excluded from the scope of the figure (they are covered by Figure 3.14). The figure also excludes specialisation programmes building on studies related to regulated professions (e.g. medicine, architecture, etc.), as well as teacher-training programmes building on degrees achieved in various areas.

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

As Figure 2.6 shows, programmes and qualifications relevant for the scope of this analysis exist in many EHEA countries.

Regardless of the category to which they belong, these programmes all raise the question of their compatibility with the Bologna Process. Indeed, on the one hand, these programmes appear as a 'deviation' from the agreed qualification structure. On the other hand, they claim to respond to specific needs, in particular where further professional development and lifelong learning are concerned. The key issue therefore seems to revolve around how to ensure and optimise cross-country readability of this type of provision.

The allocation of ECTS credits and positioning in national qualifications frameworks are some possible solutions to tackle the issue. Several countries already make use of these tools to describe the provision in question, while some others are considering them. Overall, this area should be subject to further mappings and cross-country exchanges.

To conclude, in addition to the three cycles and, possibly, short-cycle programmes, most EHEA countries also offer other programmes. Commonly, programmes outside the Bologna-degree structure comprise so-called 'integrated/long' programmes, i.e. programmes leading directly to a second-cycle degree.

While integrated/long programmes exist in most EHEA countries, they involve different proportions of students: fewer than 10 % in some countries, more than 20 % in some others. These programmes usually exist in fields related to professions regulated in the European Union by the Directive on regulated professions 2005/36/EC, which defines qualification requirements for specific professions – medicine, dentistry, veterinary medicine, pharmacy and architecture – including the duration of training. Teacher training, engineering, law and theology are also widespread fields for integrated programmes.

In a number of EHEA countries, there are programmes outside the Bologna-degree structure other than integrated/long programmes. The nature of these programmes varies from one system to another: some are linked to first-cycle studies (e.g. programmes demanding a bachelor degree for entry, but not leading to a second-cycle qualification), while others are linked to second- or third-cycle qualifications.

2.2.7. Monitoring the implementation of the ECTS system

The key challenge to ensure that ECTS delivers maximal benefits is that it is correctly understood and implemented. The reference point for correct implementation is the 2015 edition of the ECTS Users Guide, adopted throughout the EHEA in the Yerevan Ministerial Conference.

Scorecard indicator n°1 (see Figure 2.7) has been developed to reflect national measures to ensure correct implementation of the system in higher education institutions. It focuses on the role of external quality assurance agencies in monitoring ECTS. External quality assurance is the best available mechanism to provide information on the level of ECTS implementation in higher education institutions, while respecting institutional autonomy. In higher education systems where external quality assurance is required to monitor ECTS implementation, national authorities and stakeholders will have access to sufficiently reliable data on the state of play of ECTS implementation, challenges and good practice.

The indicator applies equally to the different types of quality assurance systems in European higher education – whether they focus on institutional or programme-level quality assurance or combine the two. Institutional quality assurance processes tend to assess the extent to which higher education institutions' internal quality assurance system monitor key policy areas, while programme-level

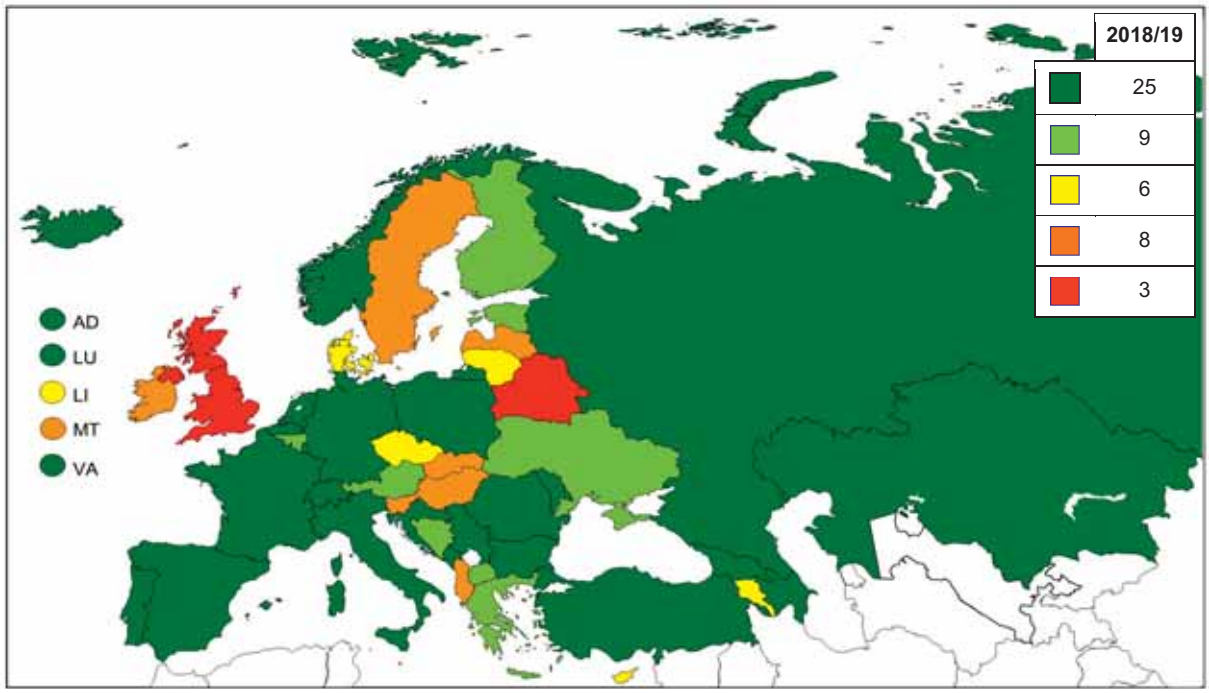
evaluation tends to check more directly defined quality aspects of individual higher education programmes and their delivery within higher education institutions.

In systems with an institutional focus, it is expected that agencies would check that institutions' internal quality assurance mechanisms take full account of the 2015 ECTS Users' Guide. External quality assurance would thus not monitor ECTS implementation directly, but would check that the institution's internal quality assurance framework is sufficiently robust to ensure coherent implementation. However, in systems based on programme evaluation, external quality assurance would have a more direct role in monitoring the use of ECTS.

The key issues which this indicator picks out from the ECTS Users' Guide for consideration in external quality assurance are:

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

Figure 2.7: Scorecard indicator n°1:
Monitoring the implementation of the ECTS system by external quality assurance, 2018/19



Source: BFUG data collection.

Scorecard categories

	The ECTS Users' Guide 2015 principles are required to be used by external quality assurance as a basis to assess the implementation of ECTS in all higher education institutions. All the following issues are monitored specifically: ○ ECTS credits are allocated on the basis of learning outcomes & student workload; ○ ECTS credit allocation is regularly monitored and followed up by appropriate revision if necessary; ○ ECTS is used as a credit system for the accumulation of credits acquired within higher education institutions; ○ ECTS is used as a credit system for the transfer of credits for student learning outcomes acquired in another institution in the country; ○ ECTS is used as a credit system for the transfer of credits for periods of study abroad; ○ The higher education institution has an appropriate appeals procedure to deal with problems of credit recognition.
	The ECTS Users' Guide 2015 principles are required to be used by external quality assurance as a basis to assess the implementation of ECTS in all higher education institutions. Four or five of the above issues are monitored specifically.
	The ECTS Users' Guide 2015 principles are required to be used by external quality assurance agencies as a basis to assess the implementation of ECTS in all higher education institutions. One to three of the above issues are monitored specifically.
	The ECTS Users' Guide 2015 principles are NOT required to be used by external quality assurance as a basis to assess the implementation of ECTS, BUT they are generally used in practice.
	The ECTS Users' Guide 2015 principles are NOT required to be used by external quality assurance as a basis to assess the implementation of ECTS, AND they are generally NOT used in practice.

On the evidence provided for this indicator, external quality assurance processes seem to pay a great deal of attention to the correct use of ECTS in respect of the Users' Guide. 25 systems require external quality assurance agencies to monitor all key aspects of the implementation of ECTS during their regular evaluation processes. In a further 15 systems, there are requirements for a number of these key issues to be considered – and in nine of these systems only one or two of the issues are not required.

In eight systems, the ECTS Users' Guide principles are not required to be used by external quality assurance, but they may be used. Finally, there are three systems which either do not yet have a well-developed external quality assurance system or where there is no requirement to consider the 2015 ECTS Users Guide.

2.2.8. Diploma Supplement (DS)

The Diploma Supplement is an integral part of several initiatives in the field of higher education internationalisation and recognition of qualifications. The first of them – the 1997 Lisbon Recognition Convention ([17]) – calls upon signatory countries to promote the Diploma Supplement or any equivalent document through national information centres or otherwise. The Diploma Supplement is also one of the five Europass transparency tools promoted by the European Commission ([20]).

As outlined in section 2.1 of this chapter, the Bologna Process made the first reference to the Diploma Supplement already in 1999, when higher education ministers agreed to adopt a system of easily readable and comparable degrees, also through the implementation of the Diploma Supplement ([21]). In 2003, the ministers agreed that every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge, and that the document should be issued in a widely spoken European language ([22]).

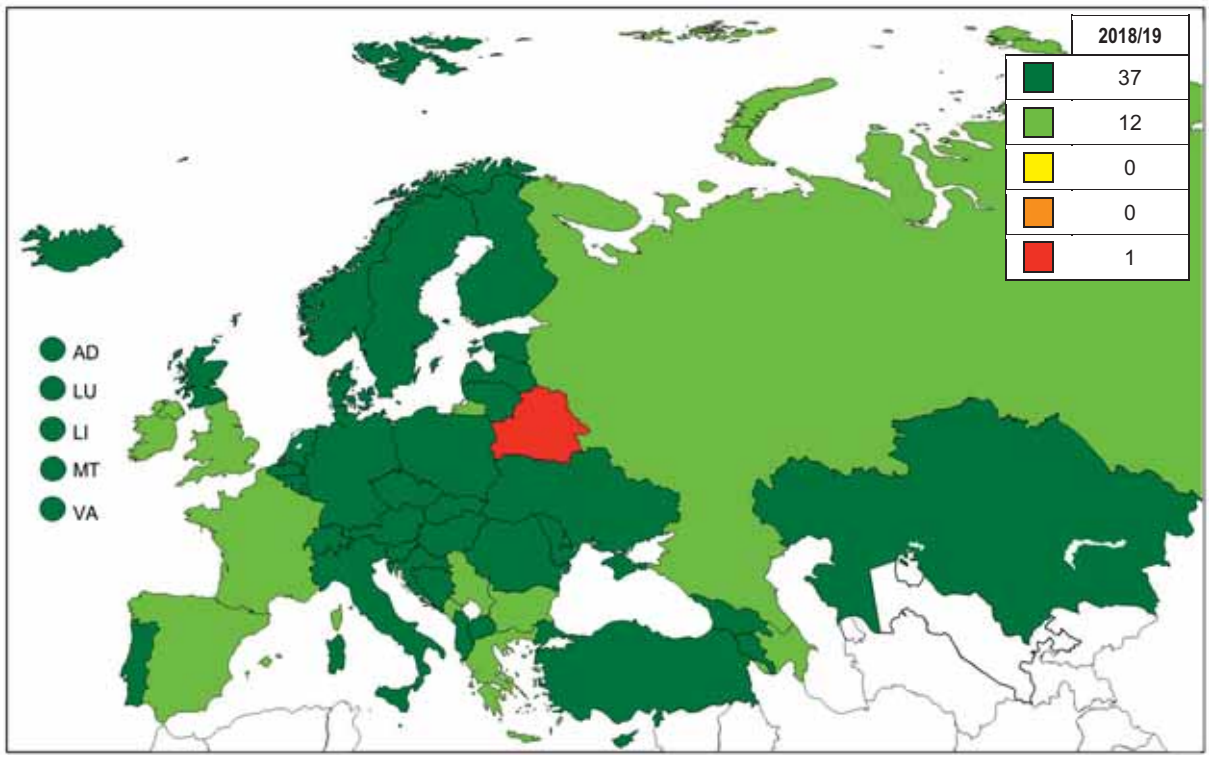
([20]) Decision No 2241/2004/EC of the European Parliament and of the Council of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Europass).

([21]) The Bologna Declaration of 19 June 1999.

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

These elements are brought together in Scorecard indicator n°2 on the implementation of the Diploma Supplement (see Figure 2.8).

Figure 2.8: Scorecard indicator n°2:
Stage of implementation of the Diploma Supplement, 2018/19



Source: BFUG data collection.

Scorecard categories

	Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format is issued to first- and second-cycle graduates: ○ to every graduate; ○ automatically; ○ in a widely spoken European language; ○ free of charge.
	Three of the above criteria are met.
	Two of the above criteria are met.
	Only one criterion is met.
	None of the above criteria is met.

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

In all EHEA systems (except Belarus that has not yet implemented the Diploma Supplement), the Diploma Supplement is issued in a widely spoken European language ([23]). In most cases, it is issued directly in the country language and in English. In some countries, however, the version in a widely spoken language is issued only upon request (Estonia, North Macedonia, Poland, Serbia and Slovakia).

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

The Diploma Supplement is generally issued free of change. Montenegro and Serbia are the only countries where graduates are commonly expected to pay a fee.

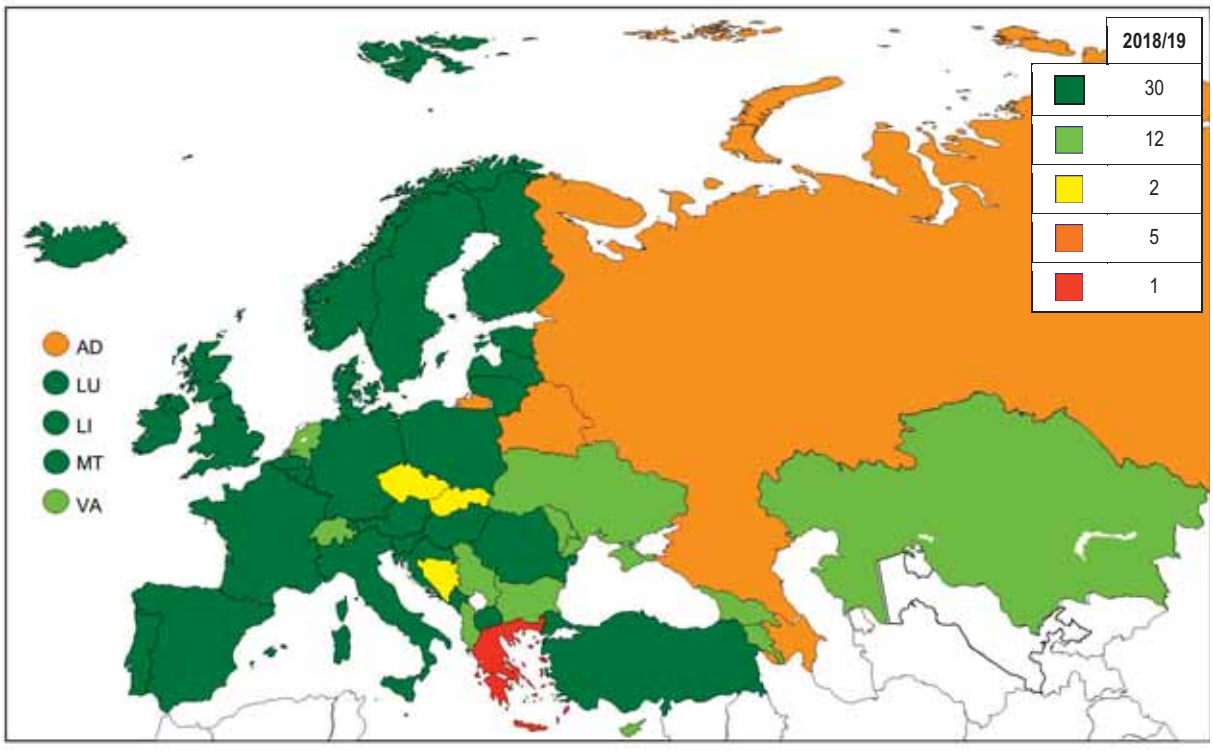
When the Diploma Supplement is issued free of charge, fees might still apply to services going beyond the standard provision. For example, in Slovenia, the Diploma Supplement is issued for free in Slovenian language and in one of the official EU languages, but for a fee in a second official EU language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

2.2.9. National Qualifications Frameworks (NQF)

National qualifications frameworks promote the readability and comparability of qualifications – both within and across countries. They are used for describing and clearly expressing the differences between qualifications in all cycles and levels of education. Qualifications frameworks are able to link many of the structural elements promoted and developed by the Bologna Process – three-cycle degree structures, ECTS credits, learning outcomes and quality assurance. This plays an important role in increasing the transparency of qualifications systems.

Scorecard indicator n°3 (see Figure 2.9) summarises the state of play of the development and implementation of national qualifications framework for higher education. It is based upon eleven steps to develop and implement a national qualification framework to be compatible with the QF-EHEA and also takes account of the use of NQFs by national authorities.

Figure 2.9: Scorecard indicator n°3:
Implementation of national qualifications frameworks, 2018/19



Source: BFUG data collection.

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

Scorecard categories

	Steps 10-11: ○ 11. Stakeholders* use the NQF (as a reference point) for at least one specific agreed purpose. ○ 10. The NQF has self-certified its compatibility with the Qualifications Framework for the European Higher Education Area.
	Steps 7-9: ○ 9. Qualifications have been included in the NQF. ○ 8. Study programmes have been re-designed on the basis of the learning outcomes included in the NQF. ○ 7. Implementation of the NQF has started with agreement on the roles and responsibilities of higher education institutions, quality assurance agency(ies) and other bodies.
	Steps 5-6: ○ 6. The NQF has been adopted in legislation or in other high level policy fora. ○ 5. Consultation/national discussion has taken place and the design of the NQF has been agreed by stakeholders.
	Step 4: The level structure, level descriptors (learning outcomes), and credit ranges have been agreed.
	Steps 1-3: ○ 3. The process of developing the NQF has been set up, with stakeholders identified and committee(s) established. ○ 2. The purpose(s) of the NQF have been agreed and outlined. ○ 1. Decision to start developing the NQF has been taken by the national body responsible for higher education and/or the minister.

The majority of countries have fulfilled their commitment to establish and use a national qualifications framework. The 30 systems in dark green have established their national qualifications frameworks for higher education and self-certified them to the QF-EHEA. In addition, in these countries, the NQF is used by national authorities for at least one of the agreed purposes. Finland has now moved into this category having completed this process in 2018.

In the 12 systems in the light green category, the NQF is in place. However, there are still processes to finalise in relation to self-certification and the use of the NQF. Serbia and Ukraine have both made recent progress to move into this category, establishing the NQF in legislation and undertaking the work of re-designing study programmes and including their qualifications in the NQF. In order to achieve the policy goals that national authorities together with stakeholders set for the national qualifications framework, NQFs need to be better integrated into public policy also in these countries.

Bosnia and Herzegovina and Slovakia are at the mid-way stage of the indicator and now need to step up action to ensure that the work so far undertaken is meaningful. The five countries in orange have made recent improvements. Nevertheless there is a need for more action to be prioritised. This is also the case for Greece, which is at the beginning stages of the process.

The implementation of QF-EHEA compatible national qualifications frameworks is now one of the Bologna Process key commitments identified in the Paris Communiqué. The hope is that they will be fully established and used throughout the EHEA in the near future.

2.3. Conclusions

The history of the Bologna Process shows that unprecedented achievements have been made in developing convergent degree structures. The first decade saw extraordinarily rapid and convergent reforms in national degree systems. However, in many national systems, the rationale behind the Bologna reforms was often not communicated clearly and distinctly. And this led to difficulties in implementation that were to persist in the following years.

The results of this analysis show clearly that there is no single model of degree programmes. Neither for the first nor for the second cycle. Yet, in the majority of the EHEA countries, the most common structures are those of 180 ECTS workload programmes for the first cycle and 120 ECTS credits for the second cycle. The 180 ECTS workload characterises the majority of programmes in more than half of all EHEA countries. In the second cycle, the 120 ECTS model is present in virtually all EHEA systems. The 60-75 ECTS model is present in around a half of all EHEA countries. If a country has changed the structure, in most cases, the 120 ECTS pattern has become more prominent. Therefore, the most common combined (first and second cycle) workload corresponds to 300 ECTS credits in around three-quarters of all EHEA countries.

In the eastern part of the EHEA, the most common workload is often more substantial, corresponding to 360 ECTS credits, which is mainly due to a higher workload of first-cycle programmes. Around half of all EHEA systems offer short-cycle higher education programmes. In most EHEA systems, integrated/long programmes which lead directly to a second cycle degree exist, commonly justified by specific requirements of regulated professions.

Some EHEA systems also offer programmes outside the Bologna-degree structure, which cannot be associated easily with the three cycle-degree-structure. This might lead to questioning of their compatibility. On the other hand, they seem to respond to specific needs, often related to professional development and lifelong learning. A key issue therefore seems to be to ensure and optimise cross-country readability of this type of provision. The allocation of ECTS credits and positioning in national qualifications frameworks offer potential solutions to tackle the issue. As the analysis presented in this section suggests, several countries already use these tools to describe the provision in question, while some others are considering them. Overall, this area requires further mappings and cross-country exchanges.

With regard to degree structure key commitments, twenty-five systems require external quality assurance agencies to monitor all key aspects of the implementation of ECTS during their regular evaluation processes. All EHEA countries but Belarus have introduced the Diploma Supplement, with a large majority (37) fully complying to all ministerial engagements (issued automatically, to all first- and second-cycle graduates, in a widely spoken European language and free of charge).

The majority of countries have also fulfilled their commitment to establish and use a QF-EHEA compatible national qualifications framework. 30 systems have established their national qualifications framework for higher education and self-certified them to the QF-EHEA. In addition, in these countries, the NQF is used by national authorities for at least one of the agreed purposes.

Work that has been initiated on implementing key commitments gives hope that the spirit of co-operative development will continue. Student-centred learning remains at the heart of these activities. The objective is for students to be able to plan their learning paths on the basis of clear information in order to acquire the knowledge, skills and competences that meet both their personal goals and societal needs.

CHAPTER 3: QUALITY ASSURANCE AND RECOGNITION

Chapter outline

This chapter tells the story of how the related topics of quality assurance and recognition systems have developed throughout the lifetime of the Bologna Process, giving both a historical overview and a picture of the current state of the art.

Section 3.1 provides a historical perspective of developments in quality assurance, showing how the policy thinking developed through the Bologna Process and how reality evolved in the different countries. It discusses and explains the importance of the quality assurance debate to the conception of the European Higher Education Area (EHEA) and highlights the key policy messages that have been formulated in different Communiqués.

Section 3.2 provides an update on the main qualitative indicators that have been developed to assess progress in meeting quality assurance policy objectives.

Section 3.3 provides a historical perspective of the evolution of recognition policy throughout the duration of the Bologna Process.

Section 3.4 provides an update of the main qualitative indicators that have been developed to assess progress in meeting recognition policy objectives.

The 2018 Paris Communiqué

The 2018 Paris Communiqué stresses the key relevance of quality assurance in 'developing mutual trust as well as increasing mobility and fair recognition of qualifications and study periods throughout the EHEA (p. 1). The national governments appreciate the progress that has been made with regards to implementing the ESG and seek to promote joint degrees and therefore also the 'European Approach for Quality Assurance of Joint Programmes' (p. 2). They seek to also promote the development of the 'Database of External Quality Assurance Results' (DEQAR) (p. 2).

Key messages

- The development of higher education quality assurance systems has been one of the most significant features and drivers of change in the EHEA.
- While the conditions for trust throughout the EHEA have been established, reluctance to trust qualifications in some other systems remains.
- Although the overarching legal framework for recognition was established prior to the Bologna Process, some recognition practice today still falls short of requirements.

3.1. History of progress and challenges in Quality Assurance in the European Higher Education Area

3.1.1. Quality Assurance in Europe before the Bologna Process

Many factors and common trends have shaped the development of quality assurance within the Bologna Process. Globalisation, overall expansion in numbers of students and higher education institutions, the changing economic context bringing constraints on government expenditure and demands for more public accountability have been major drivers in the development of external quality assurance mechanisms. The increase in the mobility of individuals, supported by the cooperation and consolidation among European universities and the perceived quality of the 'imported' and 'exported' higher education degree became an issue of interest in sending and receiving countries alike. This has further raised the discussion on external evaluation systems.

The primary aim of introducing quality assurance mechanisms across Europe was to ensure confidence in the quality of educational provision, providing reassurance that standards of awards are being safeguarded and enhanced, and ensuring a valuable return on the public investment in higher education. According to Frazer's survey (1997) of 38 European countries, the most significant response was related to accountability – 'to make higher education institutions more accountable to its stakeholders' followed by enhancement – 'to assist higher education institutions in making improvements' (including teaching, learning, scholarship, research, and service to the community). When it comes to the establishment of national quality assurance agencies, a number of different reasons were mentioned: from a stated purpose of 'international comparability and student mobility' (Bulgaria, Poland, Romania and Slovenia), to the aim of 'increased higher education institution autonomy' (Czechia, Hungary and Romania), 'expansion/diversification/control of private higher education institutions' (Bulgaria and Romania), and 'resource constraints' (Bulgaria and Romania) (Temple, P. and Billing, D., 2003, p. 243).

The accountability expectations of higher education institutions were closely related to the level to which each institution was able to direct its own educational processes. Higher education institutions in most systems operated on the assumption that they enjoyed a large degree of autonomy in their decision-making. Introducing accountability measures through external quality assurance could, however, reduce autonomy from institutions that already benefitted from a high degree of autonomy. At the same time, in systems where institutions had little autonomy quality assurance could lead to increased autonomy.

Development of national approaches to Quality Assurance

Before 1990, only four countries had an external quality assurance model in place (Denmark, France, the Netherlands and the United Kingdom). This consisted of an independent quality assurance agency, working on the basis of a self-assessment report; an on-site peer review visit; and a final report. A few other countries (Finland, Norway and Lithuania) at that time were either contemplating the idea of establishing a quality assurance system of their own or were engaged in setting up processes of establishing policy structures and evaluation criteria and determining the main purpose of their internal and external quality assurance activities (Huisman J., 2019, p. 1).

After 1990, quality assurance systems across Europe started to develop using different models and approaches. In Western European countries, the tendency was towards a more self-regulatory approach, while a more centralised and prescriptive model was used in most Central and Eastern European countries (Van Bruggen et al., 1998, p. 155).

The 1990s were at the same time marked by significant structural reforms, in particular by the transition from a centralised model to a more autonomous open and free higher education system, in particular in the Central and East European countries. The support from the EU's Multi-Country PHARE programme ([24]) was instrumental in these reforms including the introduction and improvement of quality assurance activities in universities e.g. in Hungary ([25]). Most of the implementation related to quality assurance was however in its initial phases and limited mainly to the introduction of some higher education reforms.

In establishing quality assurance evaluation methods, national systems adopted specific approaches reflecting their national strategy for higher education. Some countries preferred accreditation with varying references to evaluation or improvement aspects (e.g. Poland and Spain) while other countries instead opted towards improvement-oriented quality assurance without accreditation (Lithuania). In the United Kingdom, the Further and Higher Education Act 1992 set up the Higher Education Funding Council for England (HEFCE) had amongst its other duties, 'to secure that provision is made for assessing the quality of education'. In Austria, the University Organisation Act of 1993 introduced for the first time a systematic and comprehensive evaluation programme assessing the quality of teaching and instruction. In 1990, Poland already had a number of peer accreditation commissions, set up independently by the academic community to conduct programme evaluations on the basis of applications submitted voluntarily by higher education institutions. However the establishment of a quality assurance agency came a decade later, in 2002. In 1993, Romania also took the first steps to founding its quality assurance system through a law concerning accreditation of higher education institutions and diploma recognition.

Development of a European approach to Quality Assurance

The early developments in external quality assessment within Europe were stimulated and advanced by a number of international programmes usually in the context of a pilot project, as a 'stand-alone' initiative or inter-linked with other reforms. Examples include the European Pilot Project for Evaluating Quality in Higher Education of 1995, the pan-European survey of the processes and policy issues of academic quality assessment and accreditation in 38 countries and other bilateral projects sponsored by the European Union.

The Institutional Evaluation Programme launched in 1993 by the Standing Conference of Rectors, Presidents and Vice Chancellors of the European Universities (CRE) – now the European University Association (EUA) – offered external evaluation mainly to EUA member institutions. The programme, which still operates today, specifically focused on assessing how institutions deliver on their mission.

While national developments were taking place, the initial foundations towards a European dimension of quality assurance were also being laid by the European Commission, which funded a number of pilot evaluation projects in European member states and associated the European Free Trade Association (EFTA) countries in the early 1990s. The results of these pilot projects set out the principles underpinning the key methodological features of today's European guidelines for quality assurance, in particular referring to the introduction of a self-evaluation, peer-review visit, the publication of reports and the independence of quality assurance agencies.

The European pilot projects also lead to an increase in cooperation among European quality assurance systems followed by the adoption of the European Council recommendation of 1998 on the development of European cooperation and networking in quality assurance in higher education (98/561/EC). The discussions on developing a network for cooperation initiated during the pilot

([24]) The PHARE programme was directed towards the 12 Central and East European countries including Poland, Bulgaria, Hungary, Lithuania, Latvia, Estonia, Czechia, Romania, Slovakia, Slovenia, Albania, Bosnia and Herzegovina, and North Macedonia.

([25]) https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/financial_assistance/phare/evaluation/2015/20150806-phare-ex-post-evaluation-final-report.pdf p. 152

projects by different national authorities and quality assurance agencies (including those operating at state and regional level) came to fruition a few years later in March 2000, when quality assurance agencies together with governmental representatives (ministries of education who were responsible for external quality assurance at that time) and other stakeholders formed the European Network for Quality Assurance (ENQA).

3.1.2. Quality Assurance in the Bologna Process

The importance given to quality assurance in the Bologna Process, while not fully defined as a policy objective in its early days, has gained more clarity and prominence throughout the ministerial communiqués.

1999-2004: The early years for Quality Assurance in the Bologna Process

The initial commitment made within the Bologna Declaration (1999) set out the first intentions related to quality assurance, encouraging the cooperation of European countries in quality assurance of higher education with a view of developing comparable criteria and methodologies.

The evolving ministerial communiqués aimed at further strengthening trust between systems, and quality assurance was seen as one of the main tools to achieve this. The Prague Communiqué (2001) not only emphasised the necessity of achieving mutual trust between higher education systems but also underscored the mutual acceptance of evaluation and accreditation mechanisms, and the role of quality assurance in recognition.

One of the grounding principles in the development of European quality assurance is institutional autonomy, which was emphasised by ministers in the Berlin Communiqué (2003), recognising that 'the primary responsibility for quality assurance in higher education lies with each institution itself'.

In order for quality assurance to become a success, sustained support from the key EHEA stakeholders was needed. With the Prague Communiqué (2001), the role of stakeholders was more clearly defined and a further recognition of the role of stakeholders in quality assurance was marked with the Berlin Communiqué (2003), when ministers called upon the E4 stakeholders ([26]) to develop an agreed set of standards, procedures and guidelines on quality assurance.

Reflecting on the early achievements in quality assurance in the Bologna Process, it is worth looking at the initial quality assurance indicators developed for the process. These were intended to measure progress and to stimulate the transformation of the commitments into practice at national level (Stocktaking report, 2005). Based on the first two Communiqués after the Bologna Declaration (Prague 2001, Berlin 2003) the indicators looked at the stage of development of quality assurance systems. They focused on the key elements of the evaluation systems (internal and external quality assurance), the level of participation of students in quality assurance, the level of international participation as well as the level of co-operation and networking in quality assurance.

On the basis of the information countries provided in their national reports, the participation of students in quality assurance processes and international participation in quality assurance were areas that recorded the least progress. The involvement of students in the governance of national bodies for quality assurance, within teams for external review, as part of the consultation or involvement during external reviews, was far from being achieved, with only three countries reporting that this was ensured (Norway, Sweden and the United Kingdom – Scotland) (Stocktaking report, 2005). EUA's

([26]) E4 was the name given to meetings of the European Network of Quality Assurance in Higher Education (ENQA), the European University Association (EUA), European Association of Institutions in Higher Education (EURASHE) and the National Unions of Students in Europe (currently the European Students' Union – ESU).

Quality Culture Project (2006) ([27]) also found that student participation in decision-making bodies was often relatively low and that higher education institutions did not show any strong resolve to increase participation in a significant way. The most common forms of student involvement included filling out teaching evaluation forms and participating in decision-making bodies. Romania was, however, another early adopter of student involvement, with a 2005 decree focusing on student involvement in internal quality assurance processes.

International participation in quality assurance was also at an early stage of development, with only a few countries in the dark green category (Netherlands, Norway, Switzerland and the United Kingdom). The main criteria for the indicator at that time referred to whether international participation was ensured in the governance of national bodies for quality assurance, in the review teams for quality assurance and whether they were members of ENQA or other international networks (Bologna Process Stocktaking report, 2005).

The picture of a European higher education system with operational quality assurance agencies begins to emerge from 2003. The external quality assurance systems start to witness a widening in the scope of quality assurance, with a greater focus on accountability as an objective of the performed activities, followed by an increasing trend for quality assurance agencies to operate both at institutional and programme level (ENQA, 2003). This meant that the European standards for quality assurance that were in development at that time had to be sufficiently generic and adaptable to the various political, national and cultural contexts, while respecting system level and institutional diversity.

At the same time, the European Network for Quality Assurance (ENQA) was in the process of reviewing its criteria for membership. It transformed in 2004 into the European Association for Quality Assurance in Higher Education (ENQA), no longer including national governments or stakeholders as part of its new structure. As an association, ENQA went beyond the activities of the former network, which were mainly focused on exchange of experience, and developed as a voice of quality assurance agencies within the European Higher Education Area (EHEA).

2005-2007: The development of a Quality Assurance framework

At their Ministerial conference in Bergen (2005), ministers adopted the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), prepared by the E4 group (ENQA, ESU, EUA and EURASHE). They also welcomed the concept of a European register of quality assurance agencies. Both the ESG authors and European ministers of education saw a need for an official European register that could enforce the European framework for quality assurance. The concept of a register had already been discussed in the original report of the E4 Group on the proposal of the ESG (ENQA, 2005) and included in the European Parliament and Council Recommendation on further European cooperation in quality assurance in higher education (2006/143/EC) ([28]).

Two years after the adoption of the ESG, at the Ministerial summit in London (2007), Ministers welcomed the establishment of a Register as proposed by the E4 Group. The operational model proposed had at its core an independent group of experts – the Register Committee – nominated in their personal capacity. The role of the Register Committee was to jointly decide on the substantial compliance with the ESG of quality assurance agencies accepted on the Register. The European Quality Assurance Register for Higher Education (EQAR) was eventually founded in March 2008 by the E4 Group.

The European governments, the founding members (the E4) and Bologna social partners became the members of the General Assembly. Membership has grown steadily over the last 12 years to include

([27]) See https://eua.eu/resources/publications/656:quality-culture-in-european-universities-a-bottom-up-approach.html

([28]) See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex %3A32006H0143

the majority of the EHEA countries (40 countries out of 48 in 2019). The organisational separation of the Register Committee from the members of the EQAR Association allowed the Register to function completely independently.

The establishment of quality assurance agencies operating within the EHEA countries was increasing. 22 countries had national/regional agencies for quality assurance, with half of these being set up between 2005 and 2010 (European Commission/EACEA/Eurydice, 2012, p. 60), and it was expected that they would align their standards and process to the ESG and thus contribute to ESG implementation.

An indicator on the overall implementation of the ESG was first considered as part of the 2007 stocktaking report, before the establishment of the EQAR. Given that the criteria for ENQA membership required compliance with the ESG, the Stocktaking reports at that time looked at national quality assurance agencies that have become members of ENQA, while at the same time recognising that 'in the future it is likely that inclusion of the national quality assurance agency or agencies in EQAR will be the main indicator of the credibility of a QA agency' (Bologna Process Stocktaking Report, 2009, p. 65). The 2007 stocktaking report indicated that 17 countries have reported that they already had a fully operational national quality assurance system in line with the ESG. Four other countries indicated they were in the process of implementing such a system. In many cases, this result might have been more an indication of a country's aspiration than the actual implementation of the ESG, as the Bologna Process Implementation Reports revealed in the following years.

Quality assurance implementation at institutional level was initially slow to emerge, but became more visible, following in particular the adoption of the ESG (Bergen 2005). Slightly over half (52 %) of the EUA surveyed institutions responded that they had started working on a systematic approach to internal quality assurance after 2005, following the adoption of the ESG, and about two thirds of higher education institutions designed their quality assurance framework for teaching and learning specifically following national frameworks and guidelines (Loukkola, T. and Zhang, T. 2010, p. 23).

The introduction of internal quality assurance in some universities was often based on the replication of the model developed by other well-established higher education institutions. As a result this led to higher education internal quality assurance systems being dominated by a similar model. Another issue in the move towards the implementation of internal quality assurance arrangements within higher education institutions was the lack of genuine engagement, as quality assurance processes were at times only deployed during the preparation of their external evaluation and lacking the necessary engagement and support from their higher education community (Matei, L. and Curaj A., 2014, p. 114).

2008-2014: The consolidation phase of the Quality Assurance framework

As the initial communiqués set out the first intentions and clarified the scope and standards of quality assurance, the following communiqués recognised the greater compatibility and comparability across European higher education systems and therefore further emphasised a closer integration and consolidation of the quality assurance framework.

At the Leuven and Louvain-la-Neuve Conference (2009), the ministers asked the E4 Group to continue its cooperation in further developing the European dimension of quality assurance and to ensure that the EQAR is evaluated externally. In the further implementation of the ESG, the ministers asked for particular attention to be paid to the teaching quality of higher education study programmes at all levels. Additionally, the Leuven and Louvain-la-Neuve Communiqué acknowledged the use of multidimensional transparency tools in higher education and asserted that such tools should closely relate to the principles of the Bologna Process and in particular, quality assurance and recognition. However, caution has been called upon transparency tools, such as rankings or classifications, as

they could foil the enhancement-driven aspect of quality assurance in higher education by stifling self-critical reflection ([29]).

A further addition within the Leuven and Louvain-la-Neuve Communiqué concerned transnational education provision, which should also be considered within the scope of the ESG and in line with the UNESCO/OECD Guidelines for Quality Provision in Cross Border Higher Education. These guidelines, which were already developed in 2005, came to emphasise mutual trust and recognition between countries involved in cross-border higher education.

Marking the launch of the European Higher Education Area (EHEA), the Budapest-Vienna Declaration (2010) recognised that while much had been achieved, reforms were implemented to varying degrees. The declaration expressed the need for further consolidation, as Ministers re-committed to the full and proper implementation of the agreed Bologna reforms, including those related to quality assurance.

While there had been progress recorded across the board in quality assurance, the establishment of a genuine quality culture in higher education institutions was still in development in most higher education systems. The ESG (2005) defined the areas which should be covered by institutional quality assurance arrangements in teaching and learning, but the standards did not define how these activities were to be implemented. The formal external quality assurance mechanisms were not sufficient for stimulating significant quality improvement and transformation at the level of higher education institutions and in particular in areas of teaching and learning. The reward for formalism and compliance, trying to accommodate institutional processes to formal external requirements resulted in the transformation, in some cases, of internal quality assurance processes into a bureaucratic exercise (Loukkola and Zhang, 2010, p. 36, 39)

A number of European Commission – funded projects led by stakeholders and higher education institutions, came to support the development of internal quality assurance processes. The EUA 'Examining Quality Culture in Higher Education Institutions (EQC)' projects (2010-2012) revealed the complexity of the framework in which internal quality assurance processes operate and highlighted aspects that should be considered in the development of a quality culture. Notably they drew attention to the consideration of other possible developments in higher education, to reviewing external regulations, financial constraints, and to addressing the potential reluctance from the higher education institution's community itself. The EUA project 'Promoting Quality Culture in Higher Education Institutions – PQC' (2012) ([30]) brought together the higher education institutions to take hold of the quality concept, discuss it, define it and shape the processes that will contribute to institutional improvement and effectiveness. The EUA EUREQA project (2012-2015) ([31]) provided capacity-building activities and supported higher education institutions in the Western Balkans in producing action plans for their internal quality assurance systems.

When it comes to overall student participation in quality assurance processes, the Stocktaking report (2009) indicators showed that while progress was achieved after 2007, a number of gaps still remained. Notably students often participated in reviews only as observers, were not always involved in preparing the self-assessment reports and were seldom involved as stakeholders in external quality assurance bodies. ESU's 2009 Bologna with Students Eyes report further showed that students' participation as equal partners in internal and external quality assurance processes was limited as they often faced reluctance towards their involvement in the decision-making processes. (European Students' Union, 2009, p. 9) Though the ESGs encouraged the participation or involvement of students in different internal and external quality assurance processes, the result was that student

([29]) See, for example, comments by ENQA President Achim Hopbach, at the 2010 Ministerial Conference, Budapest/Vienna: https://enqa.eu/wp-content/uploads/2013/06/BMAC_ENQA_Achim_Hopbach.pdf

([30]) See https://enqa.eu/index.php/promoting-quality-culture-in-higher-education-institutions-pqc

([31]) See https://eua.eu/101-projects/572-eureqa.html

participation only became relevant and encouraged (when implemented) in those specific areas of quality assurance where it was explicitly mentioned in the ESG (ESU Consultation Report of the MAP-ESG Project, p. 6).

Meeting the criteria for the indicator on international participation in quality assurance (participation in governance bodies, review panels, agencies as members of ENQA or other international networks) became more challenging after 2007 with fewer countries falling into the green and light green categories. While progress was reported in 2009 with 16 countries placing themselves in the dark green category of the indicator, in 2012 this number dropped to only 8 countries. The reason for this decrease can be attributed to a change in the indicator (introducing the requirement of EQAR listing/ ENQA membership, and the requirement of international peers/experts participating in follow-up procedures), as well as to a change in reporting methods – from the national reporting used in the stocktaking reports until 2009 to the BFUG survey used in the Bologna implementation reports after 2010. One notable aspect of the indicator is that countries outside the European Union were faring significantly worse than those within the European Union.

Nonetheless some progress was notable, especially with regard to the participation of international experts in external review teams (as part of the ESG implementation). ENQA's internationalisation study (2015) further confirmed these trends, indicating that the most common practice in internationalisation of quality assurance agencies was their participation in international networks and cooperation with international partners, followed by the inclusion of foreign experts in review panels. The diversity of internationalisation activities undertaken by different agencies indicated that there was not yet a single, shared profile for the internationalisation of quality assurance.

Over time, as new quality assurance agencies have been established across the EHEA, the sophistication and variety of instruments used to measure quality has increased. Many agencies have tried several different types of procedures – single programme evaluations, clustered evaluations, audits of quality systems, departmental reviews and institutional reviews. Two surveys carried out by ENQA four years apart (in 2008 and 2012) showed that quality assurance agencies had been diversifying their approaches, most of them indicating that they had changed their quality assurance approach or that they were planning to introduce major changes in their external quality assurance procedures. These changes mostly concerned whether quality assurance agencies would be opting for an institutional or programme level type of assessments (or both) and which method they would be employing for their quality assurance assessments i.e. evaluation, accreditation or audit. In 2012, the vast majority of quality assurance systems focused on a combination of institutional and programme-level reviews (24) rather than on only programme (7) or institutional (4) assessment (European Commission/EACEA/Eurydice, 2012).

While EQAR was set up to be the EHEA's official register of quality assurance agencies that comply with the ESG, the reference to the Register within the monitoring of ESG implementation only began once the Register had sufficiently grown. In March 2009, EQAR had only listed three quality assurance agencies, but the list grew to 14 quality assurance agencies by the end of that same year. The list of quality assurance agencies accepted on the Register continued to increase, and by January 2012, 28 agencies based in 13 of the EHEA countries were registered, following a keen interest from quality assurance agencies from across the whole EHEA. There were also a few cases of interest from beyond the EHEA, but no applications were successful.

Considering the changes in the European quality assurance landscape, the creation of EQAR with its specific mission and use of the ESG as a compliance tool have all brought additional pressure to bear in considering whether the ESG could serve the purpose for which the document had been developed. As a result, an in-depth analysis of the impact of the ESG was carried out by the E4 Group in the context of the 'Mapping the implementation and application of the ESG' project, gathering information

on how the ESG had been implemented and applied in the Bologna signatory countries (ENQA, 2011). The results of the MAP ESG project showed that ESG had an impact on the development of quality assurance processes at institutional and national level across the EHEA and that they facilitated a shared understanding of quality assurance amongst relevant stakeholders and actors in higher education. Nonetheless a number of shortcomings were identified in the clarity, applicability and usefulness of the ESG. In the Bucharest Communiqué (2012), the EHEA Ministers acknowledged the concerns related to the implementation and application of ESG 2005 and mandated the E4 Group, in cooperation with Business Europe, Education International and EQAR, to prepare a revised proposal of the ESG.

EQAR gained further recognition within the EHEA through demonstrating its successful operation – including through an external review in 2011, and by the keen interest of quality assurance agencies applying for registration. At the Bucharest Ministerial conference (2012), ministers therefore agreed to 'allow EQAR-registered agencies to perform their activities across the EHEA, while complying with national requirements' (Bucharest Communiqué, 2012). This meant that countries were committed to trust the reviews carried out by ESG-compliant quality assurance agencies, but that quality assurance agencies may be expected to adapt their procedures when carrying out reviews within specific countries. The intention was that by recognising accreditation, evaluation or audit by a non-national quality assurance agency, based on the same common standards defined in the ESG, this would remove the unproductive duplication of efforts, and fatigue generated when both a national and a foreign agency reviews the same programme or institution, asking sometimes the same questions, even if for a different purpose.

In reviewing the cross-border quality assurance activity of EQAR-registered quality assurance agencies, the RIQAA (2014) project ([32]) revealed that about half of the listed quality assurance agencies at that time had carried out reviews across borders and that this was a growing development. The EUA Trends report (2015) further noted that cross-border external quality assurance had become increasingly popular across the EHEA, a manifestation of higher education institutions' international aspirations and also a recognition of their wish to be evaluated in different ways. These reviews were however mostly voluntary reviews that came in addition to, and as such remained separated from, the national systems of quality assurance. In addition, no real major developments had taken place between 2012 to 2015 in opening up national systems to EQAR-listed quality assurance agencies (with the exception of two countries, Armenia and Austria). The countries that were willing to enable their higher education institutions to undertake evaluations with a foreign agency mostly decided to do so prior to 2012. National responsibility for quality assurance could be perceived to be challenged by cross-border quality assurance, and some countries were therefore hesitant to recognise reviews from non-national agencies, perhaps particularly in systems where the main outcome of quality assurance is a decision granting permission to institutions or programmes to operate.

2015-2019: The further development of the Quality Assurance framework

At the Yerevan Conference (2015), EHEA ministers for higher education adopted the revised version of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and reiterated their earlier commitment to 'enable our higher education institutions to use a suitable EQAR registered agency for their external quality assurance process, respecting the national arrangements for the decision making on QA outcomes'. The Ministers also declared their intention to 'actively involve students as full members of the academic community, as well as other stakeholders, in the curriculum design and in quality assurance'.

([32]) Recognising International Quality Assurance Activity in the European Higher Education Area (RIQAA), project co-financed with help from the European Commission's Lifelong Learning Programme, and implemented by EQAR in 2014.

Through the Yerevan Communiqué (2015), ministers also adopted the European Approach for Quality Assurance of Joint Programmes, that had been developed to create an integrated approach for the quality assurance processes of joint programmes.

With the adoption of ESG 2015, the 'EHEA model' for quality assurance became more consolidated, clear and visible. The 2015 version of the ESG brought a number of 'technical' improvements with significant changes to the standards and guidelines for internal quality assurance outlined in Part 1. These changes have now better equipped the ESG to adapt to new developments in the EHEA including new modes of learning, links between quality assurance and qualification frameworks (QF-EHEA) and learning outcomes (standard 1.2), and a stronger emphasis of the students' active role as co-creators of their learning processes (standard 1.3). The scope of quality assurance has also widened – as ESG 2015 is embracing not only teaching and learning, but also responds to the increased internationalisation of higher education, the spread of digital learning and new forms of delivery and recognition of competencies gained outside formal education.

However, following the Yerevan Communiqué, little progress could be noted in terms of ESG implementation – at least on the basis of evidence provided for the next Bologna Process Implementation Report. This was partly due to the time necessary for quality assurance agencies and higher education institutions to implement the new version of the ESG. Therefore, at the Paris Ministerial meeting (2018), signatories of the Communiqué further pledged to remove the remaining obstacles to the implementation of the ESG in their national legislations and regulations and to enable and promote the use of the European Approach for Quality Assurance of Joint Programmes. With a view to enhanced transparency in quality assurance, ministers further welcomed the Database of External Quality Assurance Results – a tool meant to facilitate the access to reports and decisions on higher education institutions and their programmes externally reviewed against the ESG by an EQAR-registered agency.

While the Bergen, London and Yerevan Communiqués marked the main milestones in terms of the development of the quality assurance infrastructure within the EHEA, the Paris Communiqué has coalesced these pledges into one key commitment of 'quality assurance in compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area'. To ensure implementation, a structured peer support approach was created, where governments and stake-holders could meet, discuss their action plan and share practices in enacting this key commitment.

The way quality assurance processes have been implemented in all Bologna signatory countries is reflected in the different approaches towards the design of internal quality assurance systems. The EUA's Trends survey showed that by 2015, the vast majority (87 %) of institutions had a QA policy in place. These results indicated that higher education institutions have undertaken activities to develop their internal quality assurance processes, but the results did now show whether these policies have been made part of the institutions' strategic management, a requirement now part of standard 1.1 of ESG 2015. A focus group result (EQUIP Study, 2018) carried out with higher education institutions showed that while in some cases institutions aligned their internal quality assurance system with strategic management, defining the role of quality assurance to the achievement of institutional goals, in other cases, internal quality assurance was specifically linked to defining and assessing the learning outcomes of programmes and ensuring these are aligned to the national qualification frameworks.

The existing legal frameworks may in some cases make it difficult or impossible for quality assurance agencies to comply with the ESG. In cases where agencies have a limited involvement in determining the criteria they work with, they may have troubles meeting the requirement of ESG 2.2 Designing methodologies fit for purpose, as this is already defined in detail by the legal framework or by the ministry. Compliance with ESG 2.7 Complaints and appeals, is difficult for some agencies as the appeal system is regulated by the ministry and does not fall under the agency's own responsibility. In

some higher education systems, the legal framework implies that reports can only be published (ESG 2.6 Reporting) with the express permission of the institution in question, therefore making it hard for agencies to publish all reports, especially those with a negative outcome. Ministries, signatories of the Bologna Process commitments, were nevertheless expected to ensure that legislation is not a barrier to implementing the ESG and thus ensure that quality assurance agencies can meet the expectations of compliance for EQAR registration.

In parallel to the implementation of the ESG 2015, a number of changes took place within different higher systems as countries were (re)defining their external quality assurance framework e.g. transitioning from institutional accreditation to institutional audit (Germany 2018, Portugal 2017), changing from programme accreditation to institutional accreditation (Denmark 2017, Belgium – Flemish Community 2017) or the opposite, from an institutional evaluation to programme accreditation (Poland 2017). There were not only major changes in the external quality assurance system, but also in the way higher education institutions had to handle their own internal quality processes. The choice of external quality assurance requirements for both programmes and institutions in some countries depends on the type of the higher education institution. For example, in Ireland, independent higher education providers need to have delegated authority to deliver degrees (self-awarding power) otherwise they are required to undergo programme validation, in addition to an institutional review. Similarly universities of applied sciences and private universities in Austria are also required to undergo programme and institutional evaluations while public universities undergo only audit procedure.

The purposes in quality assurance have further diversified with an increased offer in quality assurance approaches by quality assurance agencies, which range from evaluations, accreditations, certification, audits, authorisation, reviews, and the offer of the European Approach of Quality Assurance of Joint Programmes. A look at external quality assurance activities carried out or 'on offer' by the 49 EQAR registered quality assurance agencies indicates that 25 % of quality assurance agencies have between one to three forms of evaluation, while 30 % of registered quality assurance agencies conduct from 9 to 15 types of reviews. There are over 300 external quality assurance activities on offer by agencies registered in EQAR. Overall, this picture suggests that the evaluation instruments of quality assurance agencies and by extension the quality assurance systems where they operate, are more complex and diversified than ever. While progress towards convergence has been made in the basic methods and procedures among quality assurance agencies (self-evaluation, publication of reports and criteria for evaluation), the diversity in the forms and types of activities carried out has become a feature of the European quality assurance framework.

Considering the developments in allowing higher education institutions to choose a suitable EQAR – registered agency the 2018 Bologna Process Implementation Report showed some important developments in the map of countries moving to the dark green category of the scorecard indicator. While by the end of 2017, 26 of the signatory EHEA countries have put in place legislative provisions to allow (all or some) higher education institutions to request accreditation, evaluation or audit from a foreign quality assurance agency, only 16 countries made a specific reference to using a suitable EQAR-registered, ESG-compliant agency and thus make full use of the established European framework for quality assurance. The remaining countries have created their own, specific framework or requirements (EQAR Annual Report, 2018, p. 13-14).

The analysis of responses on the activity of EQAR-registered agencies from 2014 to 2018 shows that the spread of cross border quality assurance activities covered almost all of the EHEA. Two thirds of EQAR-registered quality assurance agencies reported to have carried out at least one form of evaluation or accreditation activity across borders. Within the EHEA, most of such reviews are carried out in countries that recognise the activity of EQAR-registered agencies (i.e. Romania, Kazakhstan, Switzerland, Luxembourg and Germany). The results consistently show that cross-border external quality assurance activities are carried out most often in countries that recognise the activity of EQAR-

registered agencies as part of the regular quality assurance at programme and/or institutional level, although voluntary external quality assurance activities (not recognised as part of the national mandatory external quality assurance system) persist to a considerable extent.

While there is growing interest in cross-border quality assurance, there are still challenges when operating within different higher education contexts i.e. adapting criteria to specific national regulations, selecting a quality assurance agency fit for purpose, preparing the review documentation, meeting the requirement for the formal recognition process, etc. Considering these matters, ENQA, ESU, EUA, EURASHE and EQAR set up in 2016 an ad-hoc working group and developed a set of (non-binding) key considerations for cross-border quality assurance ([33]) to guide stakeholders engaging in cross-border QA.

The possibility for higher education institutions to use one single integrated procedure in accrediting their joint programme procedure and thus remove the burden of multiple accreditation procedures (European Approach for Quality Assurance of Joint Programme, 2015) has also been a quality assurance commitment that has so far shown little progress. The pre-condition for its use is that EHEA countries allow so in their national legislation, i.e. to recognise external quality assurance in line with the European Approach as sufficient to fulfil the external quality assurance obligations. Despite the fact that joint programmes have long been celebrated as a hallmark of the EHEA, quality assurance of these programmes has tended to be a complex and troublesome issue, especially in countries with obligatory programme accreditation (see Ad-Hoc Expert Group, 2014).

Whereas 'self-accrediting' institutions (i.e. those subject to external quality assurance at the institutional level only, e.g. in a regular audit) tend to have fewer difficulties, institutions from countries with obligatory study programme accreditation or evaluation often find themselves confronted with different (and sometimes even conflicting) formal requirements in the countries involved (idem). The European Approach is 'based on the agreed tools of the EHEA' (European Approach, 2015) and should be used 'without applying additional national criteria'.

According to the Bologna Process Implementation Report (2018), only two countries (Georgia and Slovenia) changed legislation to enable the European Approach to be used. Meanwhile, EQAR reported that the European Approach was only made available to all higher education institutions in 12 higher education systems, while in 13 other countries the procedure was available for some higher education institutions under specific conditions.

3.2. Qualitative indicators on state of play of Quality Assurance in the European Higher Education Area

3.2.1. Stage of development of external Quality Assurance

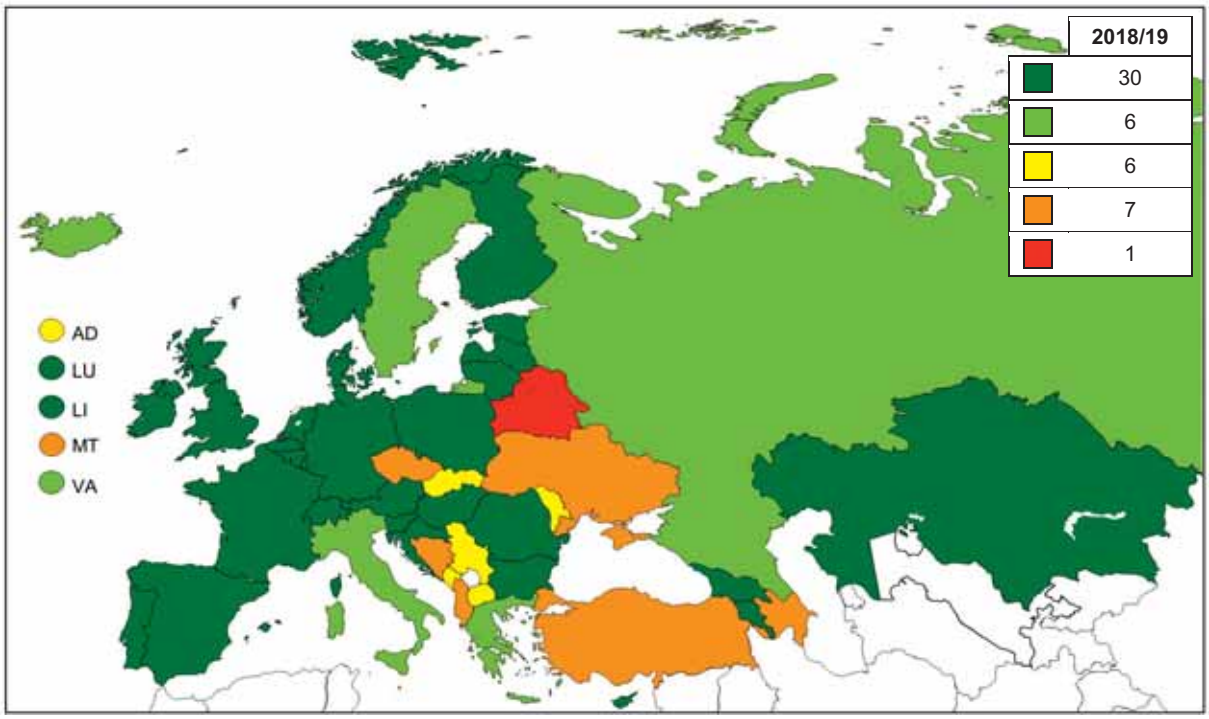
The development of quality assurance systems has been a striking phenomenon throughout the Bologna Process. Not only have systems developed rapidly, demonstrating consensus that quality assurance is necessary to ensure accountability and to support enhancement, but they have also followed Standards and Guidelines for Quality Assurance in the EHEA (ESG). Moreover, a European body – the European Quality Assurance Register (EQAR) – has been established to guarantee that the standards and guidelines are respected and implemented.

Scorecard indicator n°4 is designed to show how far quality assurance systems have developed in alignment with these agreed Bologna commitments. Systems in the dark green category are working

([33]) https://www.eqar.eu/kb/cross-border-qa/key-considerations/

with quality assurance agencies that have been evaluated to show that they are working in accordance with ESG, and this is demonstrably proven through registration on the EQAR. Countries in the light green category 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 registered on the EQAR. The countries in yellow have only some higher education institutions or programmes required to undertake regular quality assurance procedures with an agency that works in compliance with the ESG. For those countries shown 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 3.1: Scorecard indicator n°4:
Stage of development of external Quality Assurance system, 2018/19



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.

The findings for this indicator confirm the trend to strengthen external quality assurance that has continued throughout the Bologna Process. 36 systems now find themselves in the dark or light green categories. Bulgaria, Hungary and Latvia have all recently had their national quality assurance agencies accepted into the EQAR.

A number of countries whose quality assurance systems have not fully aligned to the ESG are nevertheless making strong advances in this direction.

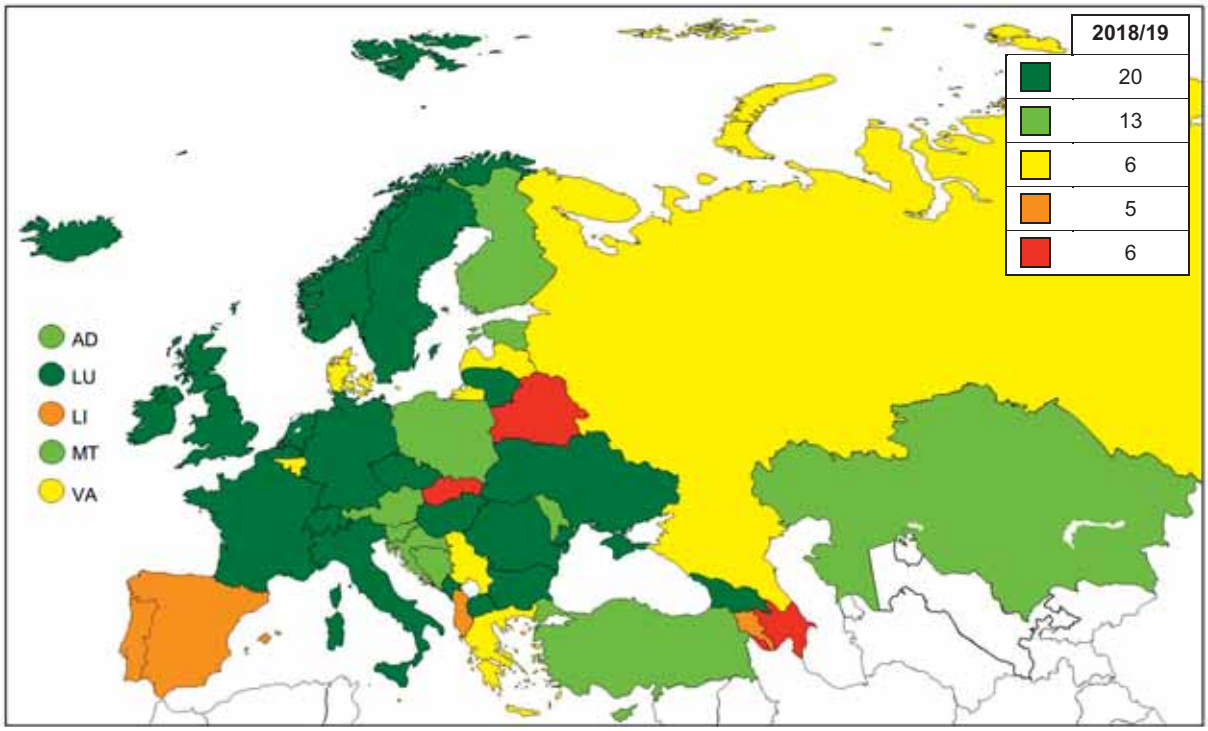
With regard to the 2018/19 reference year, Belarus provided no evidence of a quality assurance system. However, there is work in progress to develop an external quality assurance agency, and a 2020 work plan of the Ministry of Education (approved by the Minister of Education on 28 December 2019) indicates the task of drafting legal acts on the functioning of the new independent national quality assurance agency.

3.2.2. Student participation in external Quality Assurance

Participation of students in higher education governance is one of the fundamental values of the European Higher Education Area. Students should neither be, nor be perceived, as passive consumers of higher education programmes. Rather they should be actively engaged in all aspects of the learning process. This includes quality assurance, where the Bologna process has helped to establish a shared vision of students being involved in all key aspects.

Scorecard indicator n°5 gives an overview of the situation regarding student participation in external quality assurance.

Figure 3.2: Scorecard indicator n°5:
Level of student participation in the external Quality Assurance system, 2018/19



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 source of the information is ministries rather than students themselves. The indicator is built on the criteria of 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, which in most systems is ensured through being specified in legislation.

Dark green signifies that student participation is ensured in all of these activities, while at the other end of the spectrum, red means that no student participation is guaranteed, or that it is ensured in only one area of activity.

The indicator shows that there remains room for improvement in the EHEA as a whole. Although there are now 20 systems in dark green and a further 13 in light green, this means that 17 systems are located in the yellow, orange or red zones. There is therefore still improvement to be made to meet the Bologna Process commitment to full student engagement.

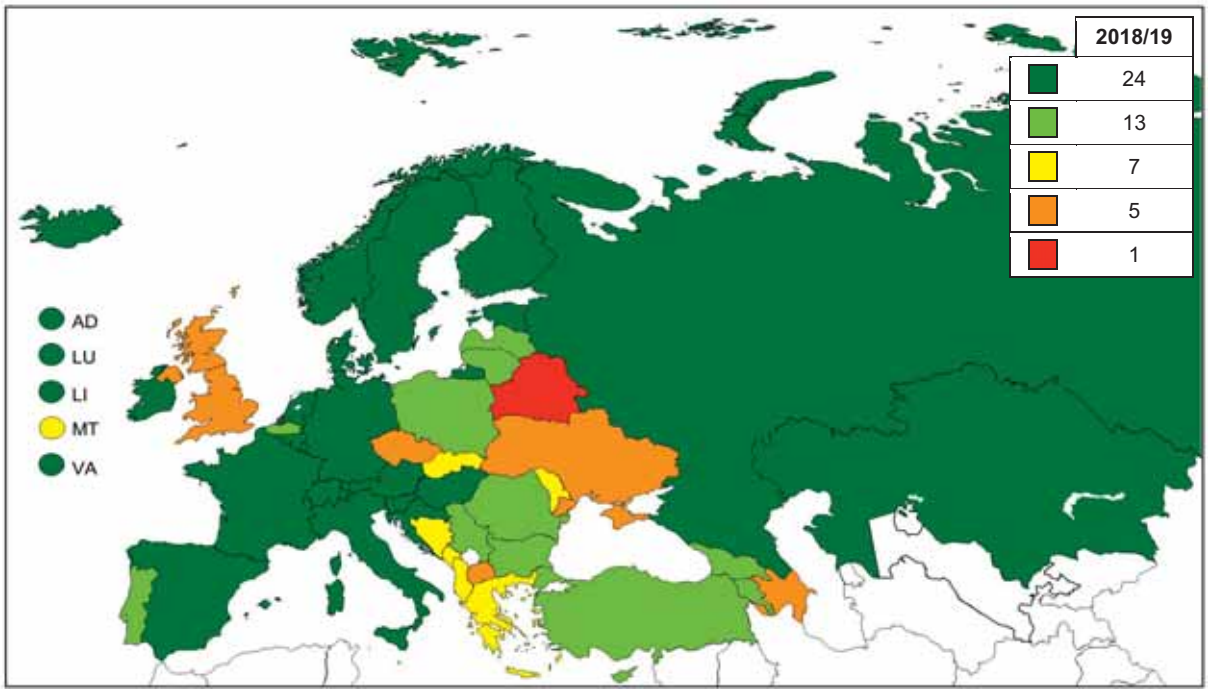
A number of countries report that student participation takes place even if it is not an official requirement. This is the case for Andorra and Switzerland, while Liechtenstein reports that the process follows ESG guidelines on student involvement and leaves quality assurance agencies to take responsibility for this themselves. Thus even if not specified as requirements in official documents or laws, student participation has evolved through the choices made by the quality assurance agencies and higher education institutions. Other countries are preparing legislative reform that will ensure student participation. Montenegro reports that, while current legislation does not require student participation in all aspects of external quality assurance processes, this is set to change in a future law.

3.2.3. International participation in national Quality Assurance systems

The impact of internationalisation can be perceived in a number of developments related to quality assurance, including cooperation between countries and quality assurance agencies in developing an overarching framework. Quality assurance systems can be designed to ensure that they draw maximum benefit from internationalisation, and one of the indicators that is most sensitive to these developments is Scorecard indicator n°6 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). As section 3.1 outlines, ENQA is the major organisation representing quality assurance agencies in Europe, promoting exchange of information and good practice, carrying out ESG reviews and implementing projects to drive innovation in quality assurance and to take forward European cooperation. As such, participation in ENQA is a pre-requisite for engagement of European quality assurance agencies beyond national boundaries. Other criteria considered for this indicator are that international peers/experts participate in the governance of national quality assurance bodies, as members or observers in evaluation teams and in follow-up procedures. The condition for these criteria to be satisfied are that such participation is a required aspect of the system.

Figure 3.3: Scorecard indicator n°6:
Level of international participation in external Quality Assurance, 2018/19



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 quality assurance 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

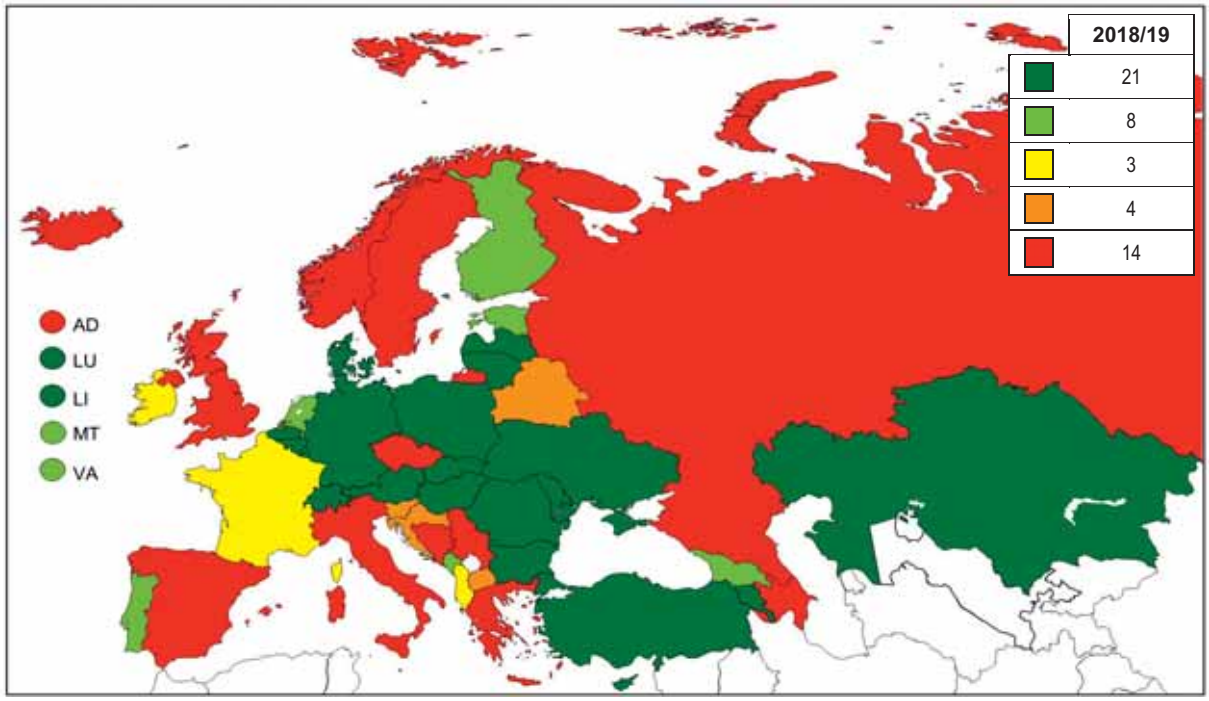
The number of countries that have reached the dark green zone has more than doubled from 11 systems in 2015 to the 24 systems now. This signifies the continuous trend towards embedding internationalisation requirements in national quality assurance systems. In addition 13 countries are now in the light green category. Meanwhile, seven systems are in yellow with two of the four criteria being met. Clearly internationalisation in quality assurance continues to grow quickly, including in countries where international engagement was previously not significant. Indeed, the number of countries shown in red or orange has dropped from 13 in 2015 to the current number of six.

3.2.4. Level of openness to cross border Quality Assurance of EQAR-registered agencies, 2018/19

One of the main benefits of quality assurance systems developing on the basis of common standards and guidelines is the strengthening of trust. An important measure of how far this trust extends 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. The European Quality Assurance Register (EQAR) exists as a clear mechanism to guarantee compliance with the ESG. Enabling cross border quality assurance in this way is thus a clear demonstration of commitment to European cooperation in quality assurance.

Scorecard n°7 shows whether, and to what extent, countries have taken action to facilitate cross border quality assurance by an EQAR-registered agency.

Figure 3.4: Scorecard indicator n°7:
Level of openness to cross border Quality Assurance of EQAR registered agencies, 2018/19



Source: BFUG data collection.

Scorecard categories

	All institutions and programmes can choose to be evaluated by a suitable quality assurance agency from outside the country to fulfil their obligations for external quality assurance, 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 quality assurance agency from outside the country to fulfil their obligations for external quality assurance, 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 quality assurance agency from outside the country to fulfil their obligations for external quality assurance, 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 quality assurance agencies from outside the country to fulfil their obligations for external quality assurance, and no plans are being discussed.

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 the mandatory external quality assurance process. 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).

The findings show that this remains an issue where country action is divided. 21 systems currently ensure that the commitment to cross border quality assurance is fully realised, and this reflects considerable progress. Indeed, it is more than twice as many systems as reported this situation in 2013/14. The countries that report recent steps to enable higher education institutions to be evaluated by an agency from outside the country are Azerbaijan, Bulgaria, Germany, Hungary, Latvia, Poland, Slovakia and Ukraine.

Another eight systems also enable their higher education institutions to choose to be evaluated by a quality assurance agency from outside the country, but these systems neglect the requirement that foreign agencies should be listed on the EQAR. Despite their commitment to using the EQAR to guarantee compliance with the ESG, national authorities consider that other criteria are sufficient for the choice of a foreign agency. This practice could undermine the commitment that other countries have made to the EQAR, and therefore to the functioning of the EHEA.

14 systems nevertheless 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). 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, while the four systems depicted in orange are in the process of discussing measures to reform this aspect of their quality assurance system.

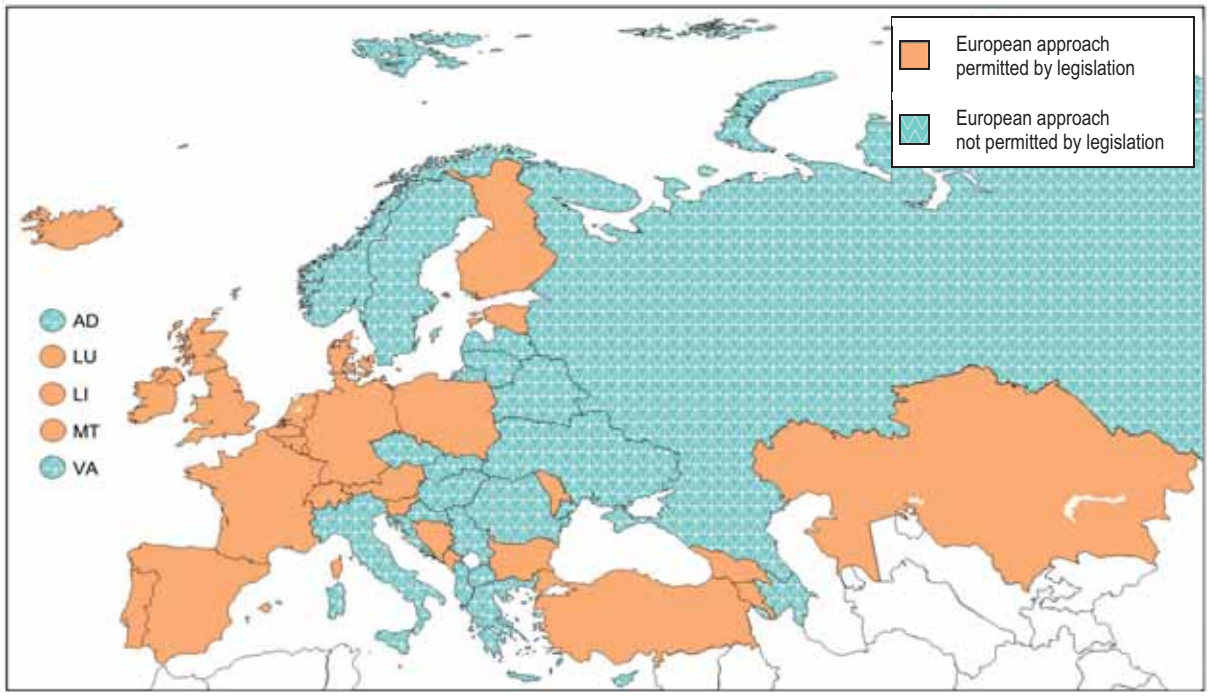
3.2.5. The European Approach to the Quality Assurance of Joint Programmes in the EHEA

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. In theory, ministers 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 examining the whole programme. In order for this single European process to be possible, governments have accepted that national requirements for programme level quality assurance or accreditation be waived for joint programmes.

This is an important step particularly for those countries that require programme accreditation. In contrast, for those countries whose system is based on institutional level quality assurance processes, there are no particular requirements for joint programmes to be evaluated – and therefore problems are less likely to arise.

Figure 3.5 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, 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 3.5: Countries allowing the European Approach for Quality Assurance of Joint Programmes, 2018/19



Source: BFUG data collection.

The commitment to implement the European Approach has not been treated as a high priority in many national systems. There is a slight majority of countries where there is no legal obstacle to using the European Approach for quality assurance of joint programmes. 30 systems now permit the European Approach for quality assurance of joint programmes to be used. These include the countries where quality assurance is primarily undertaken at institutional level, and therefore the European Approach would have a less significant impact.

Since the Yerevan Communiqué, only Georgia, Malta, Moldova, Poland and Slovenia have amended legislation to permit the European Approach. This action is also foreseen in Azerbaijan. The majority of the 20 systems that reported that the European Approach to quality assurance of joint programmes is not permitted by their legislative framework have a quality assurance system that is based on programme-level accreditation. This means that these are countries where the European approach could be particularly beneficial to quality assurance of joint programmes.

3.3. History of progress and challenges in Recognition in the European Higher Education Area

3.3.1. The Lisbon Recognition Convention (LRC)

In some respects, the story of recognition policy in the Bologna Process and the European Higher Education Area makes for a rather straightforward narrative. At the start of the Bologna Process, the Council of Europe/UNESCO Convention on the Recognition of Qualifications concerning Higher Education in the European Region, commonly known as the Lisbon Recognition Convention (LRC) provided a clear legal framework for national recognition policy and institutional practice to develop. After 21 years of the Bologna Process, it still provides the clear legal framework under which recognition policy operates at national and institutional level. This is, however, not quite the whole story.

The Lisbon Recognition Convention (LRC) came into existence in 1997, and hence pre-dates the launch of the Bologna process. Prior to the LRC, recognition was not a widely-used concept. Indeed as mobility between systems was rather unusual, the legal mechanisms in operation had been designed mainly to deal with exceptional situations. Rather than recognition, the notion of equivalence was the dominant concept in the Council of Europe and UNESCO conventions covering academic recognition in Europe. This concept implied assessment of content in one country in order to determine equivalence to similar content in another country. As an example, Article IV of the European Convention on the Equivalence of Periods of University Study Paris, which had been in operation since 1956, specifies that contracting parties, 'shall endeavour to determine...the conditions under which an examination passed or a course taken by a student during a period of study in a university of another member country of the Council of Europe may be considered as equivalent to a similar examination passed or a course taken by a student in his home university'.

The LRC was developed as the reality of higher education student and staff mobility was evolving. The Erasmus programme had been launched a decade prior to the adoption of the LRC, and higher education was opening up to early steps in internationalisation (see Chapter 5, section 1). Despite these early steps in internationalisation and structured student mobility, the 1990s was still a period when each country had developed and operated its own concept of higher education degree programmes, without any great consideration to the higher education world outside national boundaries. In this context, the principles established in the LRC – in particular, establishing recognition as a right unless the competent authorities could demonstrate substantial difference – were very forward thinking. Thus, rather than making small steps to accommodate a changing reality of greater mobility and internationalisation, the LRC instead codified a very radical conceptual innovation.

The LRC also gave legitimacy to what would emerge as today's Diploma Supplement. Indeed, article IX.3 of the LRC states that the Parties shall promote the use of the Unesco/Council of Europe Diploma Supplement or any other comparable document the higher education institutions of the Parties.

With hindsight, the LRC can be seen as a visionary document that conceptually was well in advance of contemporary reality. While its importance was acknowledged in the years following its coming into force, the nature of its conceptual framework was perhaps under-estimated. Thus the 1998 Sorbonne Declaration states:

> 'A convention, recognising higher education qualifications in the academic field within Europe, was agreed on last year in Lisbon. The convention set a number of basic requirements and acknowledged that individual countries could engage in an even more constructive scheme'.

The language of setting 'basic requirements' and suggesting that 'countries could engage in an even more constructive scheme' implies that there was perhaps not a full awareness that a major paradigm shift had taken place in the legal framework governing recognition. This lack of awareness of the implications of the text is part of the reason why it has taken many national higher education systems a number of years to evolve towards the kind of practice that the LRC envisaged.

The LRC sets out principles for recognition as well as implementation mechanisms. Its scope is not only higher education qualifications but also qualifications giving access to higher education. It stipulates that the holders of foreign qualifications have a right to assessment of their qualifications and that no discrimination may take place on the basis of gender, race, colour, disability, language, religion, political opinion, national ethnic or social origin (LRC art. III.1).

Most importantly, the LRC introduces the principle that a foreign qualification should be recognised unless there are substantial differences that can be demonstrated with similar, corresponding

qualifications in the host country. Moreover the onus is on the recognition body in the host country to demonstrate such substantial difference.

The LRC also provides the applicant with the right to appeal (LRC art. III.5). This is of course a reasonable requirement that may seem unworthy of particular comment. Nevertheless, it has significant impact, as it requires countries to ensure that a procedure for appeal must be established, and that the assessing body should provide the applicant with all information on appeal procedures.

As an international treaty, the LRC supersedes national legislation. Therefore when countries ratify the LRC they have an obligation to review and amend their own national legislation to remove any contradictions. Yet since the LRC was established evidence, including the texts of Bologna Ministerial Communiqués, suggests that either national legislation has never been thoroughly amended in line with the LRC, or that amended national legislation is not implemented by the higher education institutions with competence for recognition decisions.

Indeed throughout the Bologna Process there have been various calls to member states to review their legislation and implement the LRC correctly. In the Berlin Communiqué (2003), Ministers set themselves the short term objective 'to improve the recognition system of degrees and periods of studies'. They also 'underline the importance of the Lisbon Recognition Convention, which should be ratified by all countries participating in the Bologna Process, and call on the ENIC and NARIC networks along with the competent National Authorities to further the implementation of the Convention'.

Two year later in Bergan (2005), 36 of the then 45 participating countries had ratified the Lisbon Recognition Convention. Ministers urged those that had not already done so to ratify without delay. They also agreed to draw up national action plans to improve the quality of the process associated with the recognition of foreign qualifications and to include these in national reports at the following Ministerial conference.

By London (2007), the number of signatory countries had risen to 38, and countries had submitted their national reports. However, there was still a concern that 'the range of national and institutional approaches to recognition needs to be more coherent'. Ministers therefore requested the ENIC/NARIC networks to analyse the national action plans and to spread good practice.

This work of analysis was duly done, and in 2009 (Leuven/Louvain-la-Neuve), Ministers asked the BFUG 'to follow-up on the recommendations of analysis of the national action plans on recognition'.

3.3.2. Towards Automatic Recognition

In the second decade of the Bologna Process, the narrative on recognition began to shift. The 2012 Bucharest Communiqué first introduced the notion of 'automatic recognition' which was set as a long term objective of the EHEA. Thus Ministers made a commitment to 'work together towards the automatic recognition of comparable academic degrees, building on the tools of the Bologna framework, as a long-term goal of the EHEA'. Again, the step of reviewing national legislation to comply with the Lisbon Recognition Convention was mentioned, indicating that there was not complete confidence that this had been done by all the countries that had ratified the LRC.

2012 also saw the publication of the European Area of Recognition (EAR) Manual which outlined a set of guidelines for recognition of foreign qualifications and a compendium of good practices. The text also encouraged both higher education institutions and Quality Assurance agencies to assess institutional recognition procedures in internal and external Quality Assurance.

The 2012 Bucharest Communiqué is probably most notable, however, for having called for the establishment of a 'pathfinder group of countries exploring ways to achieve the automatic academic

recognition of comparable degrees'. This was the act which set in motion the ambition in the recognition field to go beyond the implementation of fair recognition as prescribed by the LRC and towards the notion of 'automatic recognition'. Although the notion of automatic recognition has been discussed and its meaning contested ever since this objective was set, the pathfinder group came up with rather clear findings – in particular that automatic recognition was possible for countries to achieve.

Automatic recognition was understood by the Pathfinder Group as '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' (EHEA Pathfinder Group on Automatic Recognition, 2014).

In the 2015 Yerevan Communiqué, automatic recognition was the first pillar of a vision for the EHEA in 2020: 'By 2020 we are determined to achieve an EHEA where our common goals are implemented in all member countries to ensure trust in each other's higher education systems; where automatic recognition of qualifications has become a reality so that students and graduates can move easily throughout it'.

Not for the first time, Ministers also committed in Yerevan 'to review national legislations with a view to fully complying with the Lisbon Recognition Convention'. The fact that this call had been repeated so many times in different Communiqués shows that fair, systematic and effective recognition had become a tougher goal to achieve than anticipated.

Progress towards widespread automatic recognition was also given a boost when, within the European Union, a Council Recommendation of 26 November 2018 was adopted that seeks to promote the automatic mutual recognition of qualifications as well as the recognition of learning outcomes during study periods abroad ([34]). The Recommendation envisages achieving the automatic recognition of qualifications by 2025 throughout the EU, providing further impetus to all the countries in the Bologna Process.

The understanding of automatic recognition is fully in line with agreements in the Bologna Process. Automatic mutual recognition of a qualification is the right for the holder of a qualification of a certain level issued by one country to be considered for entry to a higher education programme at the next level in another, without having to go through any separate recognition procedure. This does not prejudice the right of a higher education institution or the competent authorities to set specific evaluation and admission criteria for a specific programme. Neither does it prejudice the right to check if the qualification is authentic, or if it meets the requirements for accessing a specific higher education programme in the receiving country ([35]).

This definition makes it quite clear that automatic recognition does not imply automatic admission to any specific programme, but rather that the holders of a qualification giving a right of access to a programme of study at the next level should be considered for entry. In addition, one important clarification that follows from the legitimate right to verify the authenticity of a qualification is that automatic recognition does not imply an instantaneous outcome. Rather it means that the same process would apply to holders of national qualifications as well as to those holding qualifications from other countries.

([34]) Council Recommendation of 26 November 2018 on promoting automatic mutual recognition of higher education and upper secondary education and training qualifications and the outcomes of learning periods abroad, OJ C444/01, 10.12.2018.

([35]) Ibid.

3.3.3. ENIC-NARIC European Recognition Networks

Throughout the Bologna process, an important role has been played by the national information centres on recognition that are grouped in the ENIC-NARIC network. The status and mandate of the national information centres is determined by the respective national competent authority. However, the LRC specifies some requirements of a national information centre, and each centre should therefore abide by provisions set out in the Convention text, as well as the 2004 Joint ENIC/NARIC Charter of Activities and Services, and the 2019 Guidelines for National Online Information Systems.

In accordance with Article IX.2 (2) of the LRC, a National information centre should:

- facilitate access to authoritative and accurate information on the higher education system and qualifications of the country in which it is located;
- facilitate access to information on the higher education systems and qualifications of the other Parties;
- give advice or information on recognition matters and assessment of qualifications, in accordance with national laws and regulations.

Depending on the implementation structure, some Parties may also mandate their National information centre to evaluate qualifications held by individuals, and thus issue recognition advice/recommendation or legally-binding recognition decisions.

It is clear that intensified cooperation among the members of the ENIC/NARIC network will play a key role to further advances in improving recognition processes.

3.4. Qualitative indicators on Recognition in the European Higher Education Area

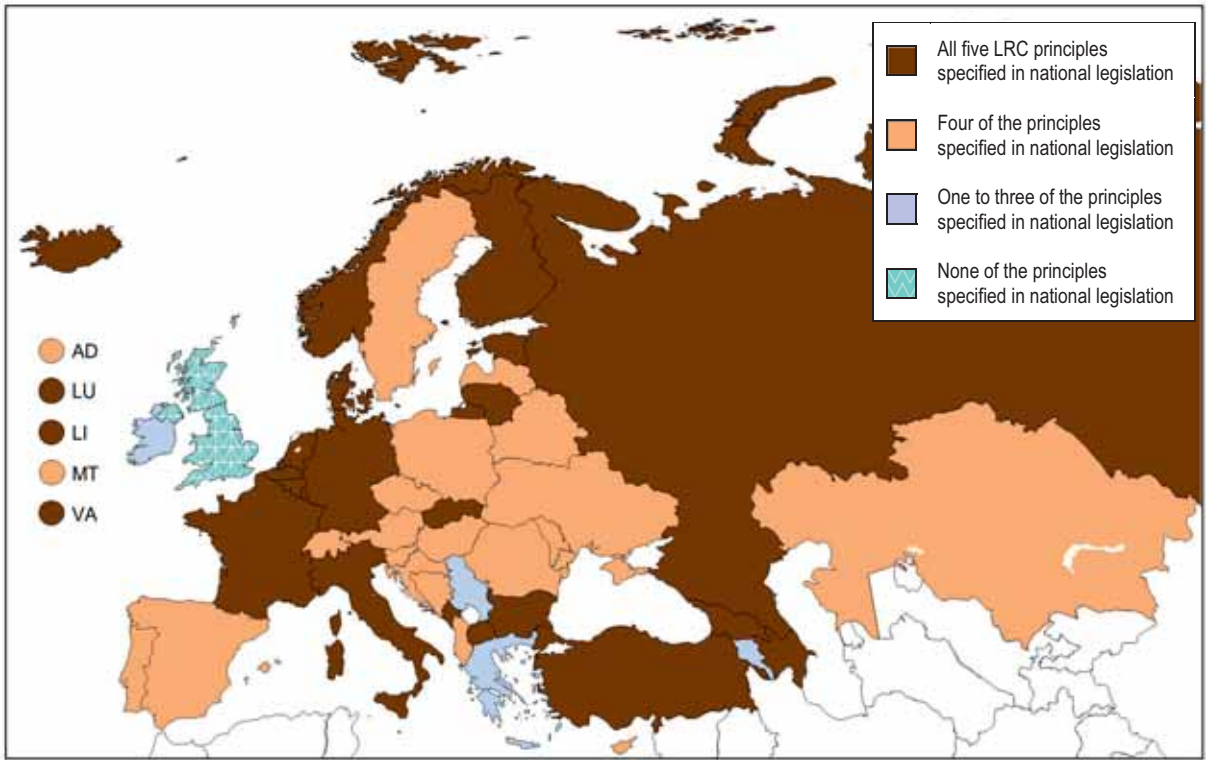
3.4.1. Principles of the Lisbon Recognition Convention in national legislation, 2018/19

Figure 3.6 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.

As the ratification of the Lisbon Recognition Convention has long been completed by all EHEA countries except Greece, it may be expected that all countries would have embedded all principles into national legislation. This is not the case.

Figure 3.6: Principles of the Lisbon Recognition Convention in national legislation, 2018/19



Source: BFUG data collection.

The number of systems where all of these main principles are specified in national legislation has now risen to 23. Improvement appears to have been made in most cases with regard to the requirement of the competent recognition authority to demonstrate the existence of substantial difference in the case of negative decisions. The number of systems where four of the principles are embedded in legislation is now 21. A further four systems specify one to three principles. The United Kingdom and the United Kingdom (Scotland) do not legislate in this area as institutions within the UK have full autonomy over their admissions, and this is considered as invalidating the requirement for principles to be specified in national legislation. Nevertheless, the UK's governments and its higher education institutions are strongly committed to open, fair and transparent admissions processes.

3.4.2. Implementation of Article VII of the Lisbon Recognition Convention

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. In the future, as well as conflicts and natural disasters, it is certain that there will be enormous numbers of people obliged to leave their home countries as a result of climate-related events.

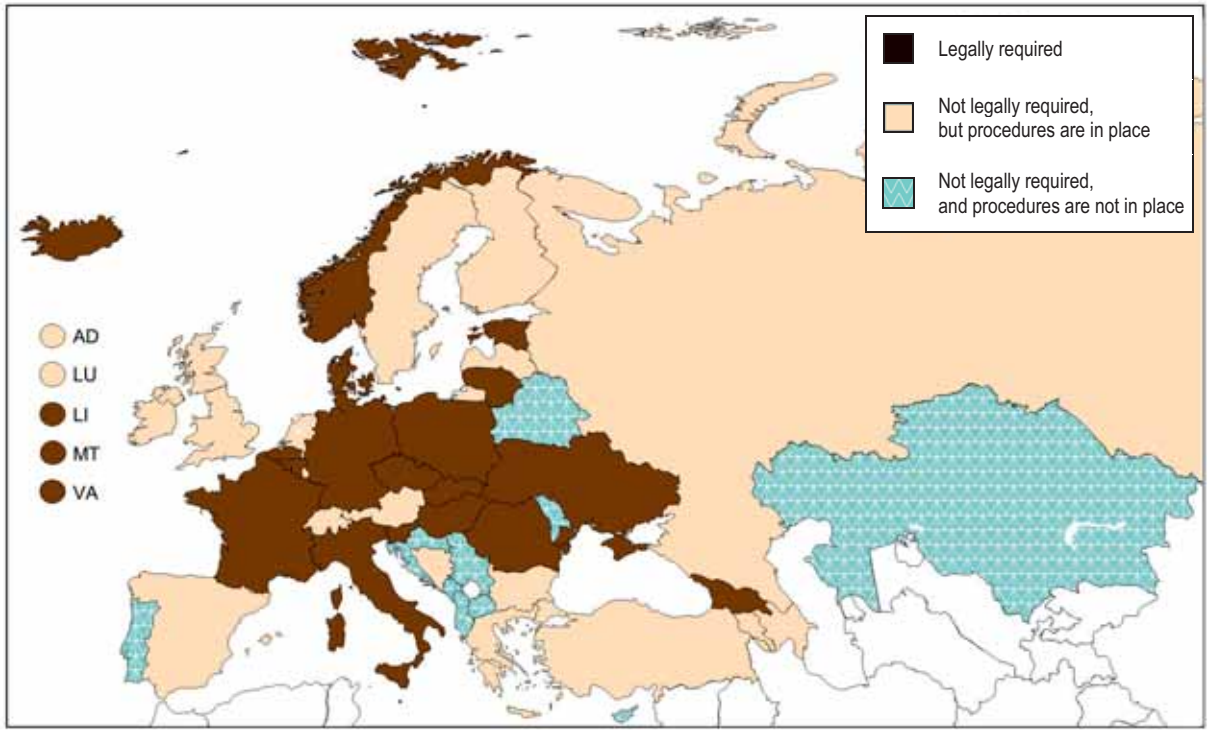
However, institutions responsible for the recognition of foreign qualifications may face particular challenges in the evaluation and recognition process. These are often associated with the lack of established recognition procedures and policy for undocumented qualifications, as well as a lack of information 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 ([36]) inviting parties to the convention to implement fully Article VII. Figure 4.18 shows where this has, and has not, been followed up.

Figure 3.7: Implementation of Article VII of the LRC at national level, 2018/19



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.

In 21 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. Both countries have clear legislation and procedures for refugees and displaced persons with qualifications to follow.

19 other systems have not outlined any legal procedures for the recognition of refugee qualifications. However, these countries claim that procedures are in place even if there is no legal requirement for them.

10 systems have no requirement for specific recognition procedures to be in place for refugees, displaced persons and persons in a refugee-like situation.

([36]) http://www.enic-naric.net/fileusers/LRCC_Statement_on_the_recognition_of_qualifications_held_by_refugees.pdf

3.4.3. Automatic Recognition

As outlined in section 3.3, after the launch of the European Higher Education Area in 2010, the EHEA ministers of higher education recognised that procedures for the academic recognition of qualifications continued to be 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.

While there has been much discussion and confusion about the notion of automatic recognition, a clear understanding has been outlined for the EHEA: '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 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 improve the situation. Meanwhile, in the Yerevan Communiqué ([37]) 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'.

Although this commitment to automatic recognition is clearly stated, there remain some grey areas about its meaning. 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. So the first aspect is that it concerns automatic recognition of the qualification level. 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, the objective is that a bachelor is a bachelor across the EHEA.

Scoreboard indicator 8 monitors progress towards the automatic recognition of qualifications. Firstly, a distinction is made between the higher education systems based on whether they have implemented system-level automatic recognition of qualifications, and if they have, whether such automatic recognition covers all EHEA countries. Secondly, in the absence of automatic recognition with all EHEA countries, the indicator takes into account the conditions under which recognition procedures operate and the number of steps taken on the path towards automatic recognition.

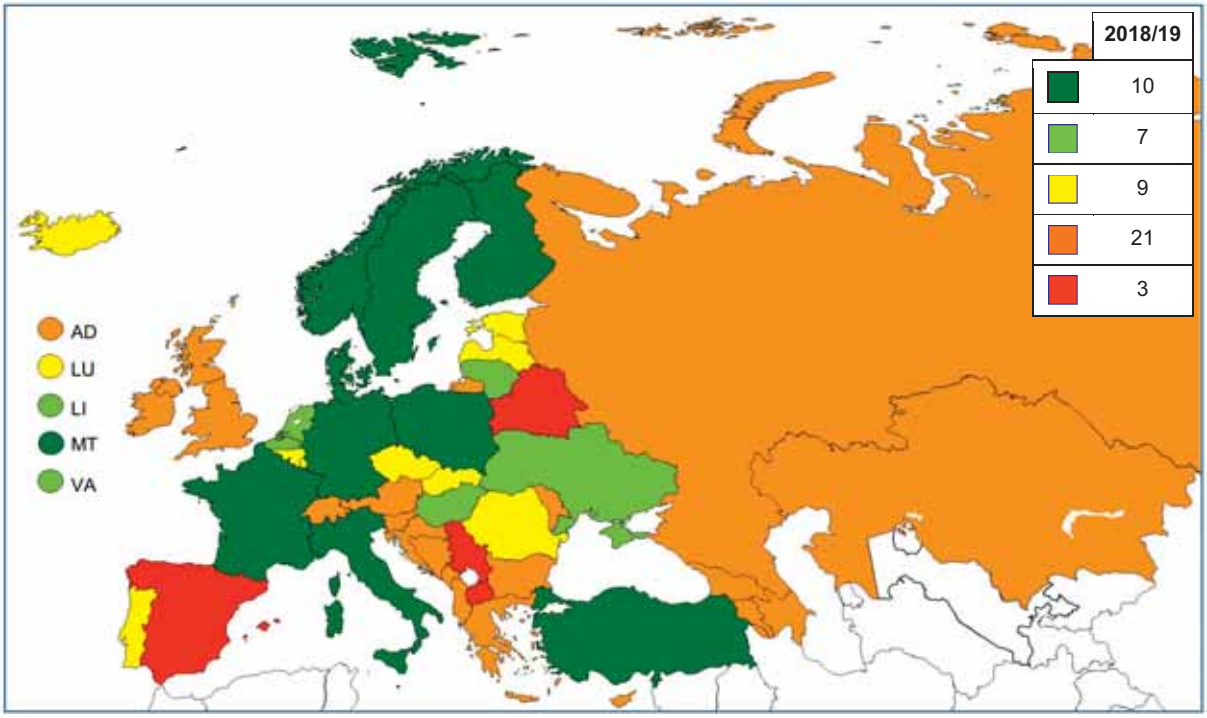
In the first three categories, there is some automatic recognition of qualifications but there are differences either between the EHEA countries covered or the number of implemented policy measures steering the countries towards automatic recognition. The last two categories (orange and red) have no automatic recognition of qualifications but again they each differ in the number of steps taken towards this goal.

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

([37]) Communiqué of the Conference of European Ministers responsible for Higher Education, Yerevan, 14-15 May 2015, p. 3

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.

Figure 3.8: Scorecard indicator n°8:
System level (automatic) Recognition for academic purposes, 2018/19



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 ([38]) 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.
	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 following conditions apply to recognition practice: • 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 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 in line with the European Standards and Guidelines 2015.
	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.

([38]) 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 at the next level without additional recognition procedures.

The same approach to automatic recognition 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. Where there is not a process of automatically recognising all EHEA degrees, the indicator looks at five measures specified by the Pathfinder Group as steps towards automatic recognition. These measures are:

- 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 four 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 number of these measures that have been implemented enables countries to be differentiated on the path towards automatic recognition. Thus the distinction between education systems in the categories 'light green' or 'yellow' is based on how extensively they have implemented the five measures outlined by the Pathfinder Group. Countries in both the light green and yellow categories have automatic recognition established with one or more countries – either through bilateral agreements or through regional agreements. Those education systems in the 'light green' category have implemented all of the conditions, while countries in the 'yellow' category have so far implemented only some of them.

Countries where there are additional recognition procedures for all EHEA countries 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 are in the lowest category.

The indicator depicted in Figure 3.8 reveals that the European Higher Education Area is still far from achieving widespread automatic recognition, though progress has been made. The distribution of education systems along the main categories is as follows:

There are 10 systems (Denmark, Germany, France, Italy, Malta, Poland, Finland, Sweden, Norway and Turkey) that practice automatic recognition for all EHEA countries, and that now are shown in dark green. The number of systems in this category has increased from five in the 2018 edition of the Bologna Process Implementation Report for the reference year 2016/17.

In a further 16 systems, automatic recognition applies to some EHEA countries. Here, the number of education systems in this category increased due to the Baltic intergovernmental agreement which entered into force this academic year.

24 systems are still in the orange and red zones indicating that recognition is not (fully) automatic in their system. More positively, of the countries not operating automatic recognition, the vast majority (21) have implemented at least two of the key measures of good practice in recognition. This also means that fewer education systems (3) are in the red category compared to 2016/17.

3.5. Conclusions

3.5.1. Quality Assurance

The rise of quality assurance in higher education is one of the most remarkable developments within the sector in the last two decades. The first wave of Communiqués (1999-2007) defined the main quality assurance agenda in the EHEA. A second wave came to consolidate the initial pledges (2007-2012). A third wave has been notable for the development of the overall quality assurance framework and a closer integration of quality assurance with other related issues – including automatic recognition, a closer link to the EHEA qualifications frameworks, and the adoption of the European Approach for Quality assurance of Joint Programmes.

Quality assurance systems have become a key driver of change in European higher education institutions. After two decades of Bologna reform, almost all countries now have internal and external quality assurance systems in place on a system-wide scale. The multi-level, multi-actor governance process of the Bologna Process is also reflected in quality assurance systems, and the trend continues towards embedding internationalisation within the structures of national external quality assurance systems.

With the adoption of ESG 2015, the 'EHEA model' for quality assurance became more consolidated, clear and visible. The European Quality Assurance Register (EQAR) exists as a clear mechanism to guarantee compliance with the ESG, and it has now become an established feature of the EHEA. One of the main benefits of quality assurance systems developing along the lines outlined by common standards and guidelines has been the strengthening of trust.

Surveying the extent of developments of quality assurance system, it would be difficult to argue that EHEA systems do not provide a sound, reliable and systematic basis for trust and recognition. Yet, despite this, not all EHEA countries are ready to put trust on a systematic basis and enable all higher education institutions to be evaluated by a quality assurance agency from another country that has been proven to work in line with the ESG.

While the conditions for trust have been realised, the practice of trust is still to be improved. While the EHEA has grown closer together over last 20 years, there are risks of concentrating trust only in a few regions and/or with those countries that have more similar systems. The challenge to ensure that trust extends to the whole EHEA remains as we enter a new decade.

3.5.2. Recognition

EHEA cooperation has focused for many years on improving and simplifying recognition practices. European higher education policy has worked towards easier and fairer recognition on the basis of the Lisbon Recognition Convention – protecting the value of learning outcomes and ensuring that qualifications are easily understood and communicated. However, despite the overarching legal framework established by the Lisbon Recognition Convention (LRC), as well as the structures and ongoing policy and expert dialogues, there are still obstacles to overcome. Further action is therefore required.

With regard to implementation of the LRC, there is no doubt that many countries have not taken action to ensure that all aspects of the convention are properly implemented in national legislation. The fact that in a majority of EHEA countries article VII is not legally required is ample evidence that the convention has not been fully and systematically implemented.

Countries have been keen to stress that they are making improvements towards the long-term priority objective of achieving system level or ‘automatic recognition’. Slightly less than half of the EHEA systems currently recognise qualifications of some other EHEA countries automatically, and ten do so for all EHEA countries. While it is encouraging to note that several countries report recent policy developments extending automatic recognition, in the majority of systems improvements are still needed to allow qualitied learners automatic access to higher education in other countries.

CHAPTER 4:
SOCIAL DIMENSION

Chapter outline

This chapter is divided into three sections: The first section examines the social dimension from a historical perspective, charting its understanding, progress and challenges over the years. The second section shows some key statistical indicators related to various aspects of the social dimension, particularly related to participation of under-represented groups. Issues of employability are also examined. Finally, in the third section, commitments made in the Bologna Process are examined through scoreboard indicators on facilitating access and completion of under-represented groups in higher education, and developing recognition of prior learning (RPL).

The 2018 Paris Communiqué

The social dimension in higher education was a prominent topic in the Paris Communiqué. More specifically, the Communique stated that the Ministerial Conference committed to 'developing policies that encourage and support higher education institutions to fulfil their social responsibility and contribute to a more cohesive and inclusive society through enhancing intercultural understanding, civic engagement and ethical awareness, as well as ensuring equitable access to higher education' ([39]). Moreover, the issue of ECTS short-cycle degrees was identified as one potential route in 'facilitating access for many who would otherwise not have considered higher education' ([40]). The Ministerial Conference also recognise that 'further effort is required to strengthen the social dimension of higher education. In order to meet our commitment that the student body entering and graduating from European higher education institutions should reflect the diversity of Europe's populations, we will improve access and completion by under-represented and vulnerable groups. Therefore, we mandate the BFUG to take this issue forward by the next EHEA Ministerial conference' ([41]).

Key messages

- Participation rates of under-represented groups have not improved significantly during the lifetime of the Bologna Process.
- Support for under-represented groups in access and completion exists in some form in each country – yet the impact of support is often not known.
- Work is still needed to develop recognition of prior learning (RPL) and other alternative pathways to higher education across EHEA.

([39]) Paris Communiqué, adopted at the EHEA Ministerial Conference in Paris, 25 May 2018, p. 1.

([40]) Ibid. p. 2.

([41]) Ibid. p. 4.

4.1. History of progress and challenges in social dimension

This section of the chapter provides a historical overview of the progress made in the social dimension of higher education.

4.1.1. Understanding the social dimension

The social dimension has been a part of the Bologna Process since its inception. However, in the early years it was far from clear what the social dimension of higher education was understood to be, and it took until 2007 for a definition to be agreed and outlined in the London Communiqué ([42]). In Communiqué, ministers agreed on the following definition of the social dimension:

> We share the societal aspiration that the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations. We reaffirm the importance of students being able to complete their studies without obstacles related to their social and economic background. We therefore continue our efforts to provide adequate student services, create more flexible learning pathways into and within higher education, and to widen participation at all levels on the basis of equal opportunity ([43]).

This definition is still used today, and has recently been widened to explicitly encompass 'the creation of an inclusive environment in higher education that fosters equity, diversity, and is responsive to the needs of local communities' (BFUG Advisory Group on the Social Dimension, 2020). The definition of the social dimension in the Bologna Process thus includes both an outcome component – the representation of the diversity of the population in an inclusive higher education environment – and a process component, i.e., the policies and practices in place to reach the desired outcome (see also BFUG Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries, 2007; Usher, 2015, p. 433). Additionally, the term 'social dimension' is used to refer to underlying factors such as students' social background and living and study conditions before, during, and after their higher educational experience. In this way, the concept of the social dimension is connected to and overlaps with other themes addressed in the Bologna Process, including, e.g., lifelong learning, flexible learning paths, inclusive higher education, and employability. Inherent in all these uses of the term 'social dimension' is an acknowledgement of a desire to ultimately achieve equity in higher education (Usher, 2015). Furthermore, the different terms highlight the fact that the social dimension in higher education should be considered throughout the entire student life cycle and beyond, spanning aspects relevant even before entry into higher education (flexible learning paths, access modes) until after graduation (employability of graduates, returns on education). The somewhat fuzzy terminology associated with the social dimension may have contributed to the lack of a common understanding and common measures addressing the issue.

Typically, three types of arguments have been made for the social dimension's relevance (see BFUG Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries, 2007). Firstly, it is seen to be a question of equal opportunity, thus touching upon questions of equity and fairness ([44]). The second argument stresses that strengthening the social dimension will have positive effects on the development of society ([45]). Finally, an argument for the social dimension

([42]) London Communiqué, adopted in London, 18 May 2007.

([43]) Ibid., p. 5.

([44]) Berlin Communiqué, adopted in Berlin, 19 September 2003; Bergen Communiqué, adopted in Bergen, 19-20 May 2005; Budapest-Vienna Declaration adopted 12 March 2010.

([45]) Budapest-Vienna Declaration, 2010.

is made on the basis of its potential to increase the quality, and in turn the competitiveness, of higher education systems ([46]).

Policy instruments in the realm of the social dimension, i.e., affecting access and social inclusion, can be categorised and understood from different perspectives. They may address areas of regulation, funding, organisation, and information (Kottmann et al., 2019). Measures may differ by target group, addressing either the entire student body or particular disadvantaged and under-represented groups. Policy measures can be implemented at different stages in the educational career – e.g., addressing prospective students with counselling and information services before entering higher education (PL4SD, 2015), or creating aspiration at even earlier stages of school education (Usher, 2015; Working Group 2 on Implementation, 2018). Different actors may implement relevant measures: (national) governments, higher education institutions, student services organisations, as well as other (non-governmental) actors that can and do implement support mechanisms to advance the social dimension of higher education in Bologna countries (PL4SD, 2015). Finally, measures need not be restricted to the educational realm, as removing barriers to inclusive education may require solutions in areas outside the immediate influence of higher education policy (BFUG Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries, 2007, pp. 5-6; Federal Ministry of Science, Research and Economy [AT], 2017).

4.1.2. The social dimension in Bologna documents

The 'social dimension', although acknowledged, played only a minor role in the first ministerial communiqués of the Bologna Process ([47]), and was not a clearly stated goal of the process from the beginning. However, the social dimension and its importance has evolved over the course of the process. It first gained more prominence – not least due to the insistence of student representative organisations – with the Prague Communiqué ([48]), in which ministers explicitly affirmed 'the need, recalled by students, to take account of the social dimension in the Bologna Process' ([49]). In the following Berlin Communiqué ([50]), ministers explicitly called for data on the social and economic conditions of students in order to ensure that students' studying and living conditions allow them to successfully complete their studies regardless of their background. Ministers renewed their commitment to the social dimension in the Bergen Communiqué ([51]), stating its fundamental importance as 'a constituent part of the EHEA' and calling it 'a necessary condition for [its] attractiveness and competitiveness'. The communiqué identified the social dimension as a priority and for the first time mentions concrete measures governments can take in its support, namely, 'measures […] to help students, especially from socially disadvantaged groups, in financial and economic aspects and to provide them with guidance and counselling services with a view to widening access' ([52]). The Bergen Communiqué also called for comparable data on the social dimension to be included in future stocktaking.

The ministerial meeting in London resulted in an endorsement of the definition of the social dimension that arose out of work carried out on the basis of the Bergen Communiqué ans the subsequent BFUG work programme – BFUG Working Group on the social dimension and mobility (2005-2007). The importance of students of all backgrounds being able to study successfully was reiterated, with ministers committing 'to provide adequate student services, create more flexible learning pathways

([46]) Bergen Communiqué, May 2005.

([47]) Bologna Declaration, adopted in Bologna, 19 June 1999; Sorbonne Joint Declaration, adopted in Sorbonne, 25 May 1998.

([48]) Prague Communiqué adopted at the Ministerial Conference in Prague, 19 May 2001.

([49]) Ibid., p. 3.

([50]) Berlin Communiqué (2003).

([51]) Bergen Communiqué (2005).

([52]) Ibid., p. 4.

into and within higher education, and to widen participation at all levels on the basis of equal opportunity' ([53]). This definition of the social dimension would continue to be referenced and used throughout future communiqués and in the work of the BFUG.

The London Communiqué – again in line with working group recommendations – also marked the start of a joint monitoring of the state of the social dimension and mobility, with ministers asking 'the European Commission (Eurostat), in conjunction with Eurostudent, to develop comparable and reliable indicators and data to measure progress towards the overall objective for the social dimension and student and staff mobility in all Bologna countries' ([54]). Besides data on participative equity, information on employability for graduates was explicitly requested as part of a report for the 2009 Ministerial conference ([55]). With a view to the next meeting, ministers also planned on reporting on national strategies and policies for the social dimension, which were to be developed with the involvement and support of national stakeholders ([56]).

The Leuven and Louvain-la-Neuve Communiqué ([57]) reiterated the social dimension goal. Improving the learning environment, removing all barriers to study, and creating the appropriate economic conditions for students to be able to benefit from study opportunities at all levels were listed as concrete measures to foster the social dimension of higher education. Bologna countries committed to setting measurable targets for 2020 in relation to widening participation and increasing participation of under-represented groups (Bologna Process Stocktaking Report, 2009). For the first time, the interlinkage between higher education and other parts of the educational system was recognised in a communiqué, calling for complementary actions in other parts of the system. The social dimension of mobility was again specifically stressed by expressing the aim of an increased participation rate in international mobility from diverse student groups (pp. 4-5).

Looking back at the first decade of the Bologna Process, the Independent Assessment Report (Westerheijden et al., 2010a; 2010b) pointed out the social dimension as one of the more neglected areas of the initiative, and called for better data as well as a common framework at the Bologna level in order to trigger action at the national levels. Ministers also recognised that the state of the social dimension's implementation varied across Bologna countries in the Budapest-Vienna Declaration (2010) and pledged to increase efforts on the social dimension.

The Bucharest Communiqué ([58]) marked a turn towards the more practical approach to the social dimension, and provided the starting point for the project Peer Learning for the Social Dimension (PL4SD), a three-year project funded by the European Commission. Ministers also again restated the aim formulated in the London Communiqué and vowed to 'provide adequate student support services, counselling and guidance, flexible learning paths and alternative access routes, including recognition of prior learning' ([59]).

At their following meeting in Yerevan, ministers committed to the implementation of the EHEA social dimension strategy developed by the BFUG Working Group on the Social Dimension and Lifelong Learning (2015), aiming to make higher education more socially inclusive ([60]). The social dimension strategy (European Higher Education Area, 2015) calls on countries to address the social dimension through a coherent set of measures (access plans and strategies), and reinforces the value of peer learning activities and data collection. Lifelong Learning, flexible learning paths, the quality of teaching

([53]) London Communiqué, 2007, p. 5.

([54]) Ibid., p. 6.

([55]) Ibid., p. 6.

([56]) Ibid., p. 6.

([57]) Leuven and Louvain-la-Neuve Communiqué, adopted in Leuven and Louvain-la-Neuve, 28-29 April 2009.

([58]) The Bucharest Communiqué, adopted at the EHEA Ministerial Conference in Bucharest, 26-27 April 2012.

([59]) London Communiqué, 2007, pp. 1-2

and learning, and employability of graduates are named as complementary areas contributing to widening participation in higher education (BFUG Working Group on the Social Dimension and Lifelong Learning, 2015).

In the Paris Communiqué ([61]), ministers recognised that further effort to strengthen the social dimension of higher education was still needed. The BFUG was asked to take matters forward by the next EHEA conference. In the following, most recent period (2018-2020), an Advisory Group on the Social Dimension (AG 1) was tasked by the BFUG with developing principles and guidelines for the social dimension of higher education within the EHEA, building on a shared definition of the social dimension. The resulting ten principles with their corresponding guidelines for implementation highlight the role of the higher education institutions in creating inclusive systems. Further tasks of the Advisory Group included gathering data on good practices in the field, as well as exploring EHEA cooperation opportunities and (re-)starting peer learning activities on the topic. As a result of their work, the Advisory Group recommended continuing the work in future Bologna rounds, specifically calling for the development of a system of monitoring of the Principles and Guidelines, as well as the definition of indicators and benchmarks for the principles for the social dimension. It also recommended broadening the Peer Support Groups to include the topic of the social dimension in order to support policy development and implementation within the EHEA. Finally, the Advisory Group proposed that an event focusing on the social dimension be planned in order to discuss progress made within the next Bologna round (BFUG Advisory Group on the Social Dimension, 2020).

Overall, the Bologna Process ministerial texts evolved from rather nebulous statements to a clear definition in 2007. Since then, there have been successive calls for improved data and strategic action. As the process has evolved, the texts have become more practically oriented – no doubt in recognition of the fact that the social dimension requires prioritised attention. However, as the social dimension is very much a context-determined topic, it has proven hard to pin down and difficult to follow.

4.1.3. Developments at national level

How were these developments in the Bologna Process reflected at the national level, and what changes have taken place in national policies? Bologna countries first reported on matters relevant to the social dimension in their national reports to the London ministerial meeting in 2007. Three areas of interest were surveyed: measures to widen access, measures to help students complete their studies without obstacles related to their social or economic background, and involvement of students, as well as staff representative bodies in the governance of higher education institutions ([62]). An analysis of the national responses undertaken by the WG showed that governments were increasingly recognising the need to address equity issues related to access. Measures in this realm appeared to focus mainly on alleviating financial difficulties of students or their families (e.g., grants and loans, scholarships, housing assistance, tax exemptions), or incentivising HEIs to widen access, e.g., through performance indicators and funding.

Fee and support systems are important tools of national policies as they play a role in supporting (or discouraging) access to higher education, and can also have an impact on progression and completion rates. While fees impose a financial burden – which may be more or less significant depending on the nature and level of the fees and the socio-economic conditions of students and their families –, support measures are able to alleviate financial obstacles to study.

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

([61]) Paris Communiqué 2018.

([62]) This aspect was relevant to the social dimension at the time but is now no longer considered a part of it.

Although practically all countries have some form of needs-based support to students facing financial difficulties, policies and practice in this area need to consider student support alongside student fees. It is important to clarify whether all or some students are required to pay fees. If it is some, what are the criteria that determine which students pay fees? How much do students pay? Are the fees paid upon enrolment or after graduation? Similarly for student support, are students or their families able to access public financial support in the form of grants, loans, or tax relief? If so, under what conditions and criteria? The quality and strength of the student support system is also directly related to the amount of money made available through the public budget.

While there has been considerable debate about student financing, in reality few systems have introduced radical change to their system. The United Kingdom (England, Wales and Northern Ireland) stands out as having moved in 2011 to a system charging significant tuition fees for all students – although with payments only beginning after graduation and when in work. Germany also introduced the right to charge tuition fees in 2007, but those regions (*Länder*) that introduced them gradually reverted to the previous system. Capped fees were also introduced in Austria in 2008. A number of countries, including Denmark and Sweden, have also introduced legislation enabling higher education institutions to charge fees to international students, or for programmes not taught in the official language.

Reforms introducing or extending tuition fees appear to have been motivated by other objectives than widening participation, although they have often included mechanisms to ensure that there should not be a detrimental impact on financially disadvantaged students. With regard to student support, most countries that began the Bologna period with grants for students have maintained them. Only the Netherlands and the United Kingdom (England, Wales and Northern Ireland) have moved away from student grants to student loans. Nevertheless, a number of countries have introduced the possibilities for students to take out loans.

Overall, EHEA countries have tended to maintain their established fee and support system, and not to make substantial new investments in favour of students from under-represented groups.

In the national reports to the ministerial meeting 2007, strategic measures aimed at removing obstacles to successful completion of studies were found to be less commonly reported. This led the WG to stress the importance of achieving student retention as well as access. The WG also called on countries to develop a broader array of measures, including e.g. legislation, student services and outreach programmes, and flexible curricula (BFUG Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries, 2007, p. 42). Furthermore, it was noted that any measures in place were not necessarily part of an overarching strategy. The WG therefore recommended that by 2009, all countries develop and report their national strategies on the social dimension to the BFUG, providing guidelines on compiling and developing such a document.

The analysis of the submitted strategies in 2009 yielded only somewhat meagre results. The Social Dimension Coordination Group report (Bologna Process Stocktaking Report, 2009) stated that while virtually all countries were taking some action to enhance participative equity, only a minority had set up monitoring systems, and even fewer have in place an integrated strategy ‘with synergies between government actions and institutional practices, funding arrangements, lifelong learning strategies, recognition of prior learning, cultural and linguistic minority issues, guidance services, communication policy, social policy, anti-discrimination protection, tax system etc.’. This led the coordination group to the conclusion that there would be ‘still a long way to go’ (p. 139) in order to reach the social dimension goal.

This sentiment was echoed by the Independent Assessment report (Westerheijden et al., 2010b), which noted that ‘there were very few signs of the social dimension being seen as a priority area in

most Bologna Process countries' (p. 9). Yağci (2014) judged the social dimension at this point to be 'stuck in the agenda-setting stage of the Bologna Process, because of the implementation problems it entails and for which no clear policy means have been defined so far' (p. 7). However, some exceptions should be noted – a few countries were revealed already in the first assessment of the existing national strategies to possess an evidence-based plan, reaching across several policy sectors (including labour market, immigration, and budgetary considerations), involving relevant stakeholders, and designed with a long-term view. Ireland's National Plan for Equity of Access to Higher Education 2008-2013 was put forward as an example of such an integrated policy.

The focus in later years turned away from fully integrated plans and focused more on the collection of individual action lines, measures, and policies. The PL4SD project (2012-2015) built up a database of measures to support the social dimension in the EHEA, conducted comprehensive country reviews in Armenia, Croatia and Lithuania, and stimulated peer learning among EHEA stakeholders through several events. An analysis of the (now defunct) database containing more than 300 measures from 33 countries reveals that most measures addressed the general student population, students from a lower socio-economic background, students with disabilities, or prospective students (PL4SD, 2015). The most frequent forms of support in place were in the area of counselling and support services, student financial support, as well as information campaigns. The classification of the measures' objectives shows that a majority aim at supporting students or widening access to higher education, followed by the objective of fostering retention and success. More specific objectives, such as supporting the combination of study and work or fostering international mobility, were the least frequently named. In the face of the PL4SD findings, the working Group on Social Dimension and Lifelong Learning concluded – much in line with previous WGs – that, while each country was to some extent engaged in the social dimension, only very few countries are working on the basis of a coherent, integrated plan or strategy (BFUG Working Group on the Social Dimension and Lifelong Learning, 2015). In turn, they recommended that each country develop a set of policy measures and effective national plans or strategies, as laid out in the Strategy for the Development of the Social Dimension and Lifelong Learning.

However, more than a decade after the first analyses of national activities, the picture has not significantly changed. Besides Ireland (now in its third cycle of national strategies) (Higher Education Authority, 2015); only a limited number of countries have developed either a dedicated 'social dimension strategy' or access plan (Austria, National strategy on the social dimension of higher education: Towards more inclusive access and wider participation, Federal Ministry of Science, Research and Economy [AT], 2017; Croatia, Nacionalni plan za unaprjeđenje socijalne dimenzije visokog obrazovanja u Republici Hrvatskoj [National Plan for Improving the Social Dimension of Higher Education in the Republic of Croatia], Ministarstvo znanosti i obrazovanja [Republic of Croatia Ministry of Science and Education], 2019), or have dealt with the social dimension in the context of a coherent higher education strategy e.g., the Netherlands (Ministry of Education, Culture and Science [NL], 2019) and the United Kingdom (Department for Business, Innovation & Skills [UK], 2016). As most of the strategies have been developed comparatively recently, it remains to be seen what their impact on the social dimension in the Bologna countries will be.

4.1.4. Monitoring the state of the social dimension in the EHEA

The first report that was really developed within the Bologna Process framework to highlight social dimension issues on the basis of statistical evidence was 'Key indicators on the social dimension and mobility' (Eurostat, 2009). It focused on widening access, study framework (study environment and the financial situation of students), and the completion of studies, mirroring the common threefold distinction of equity into equity of access, equity of treatment, and equity of outcomes (e.g. Baye et al., 2005; Eurostat, 2009). No single data source could be drawn on for all countries, so several different

sources were employed to generate indicators. It was not possible to present a full picture of the situation in all countries due to a lack of available data. This led the authors to call for an improvement of existing data collections as well as the development of new data structures in countries where none existed. Partly as a result of this, the Eurostudent project, in those countries which implement it, has developed and grown into an invaluable source of data on the social and economic conditions of students, thus providing an evidence base for countries wishing to understand and improved the social dimension of their HE systems. Findings based on Eurostudent data have also informed the development of social dimension strategies in several countries.

Focusing on access to higher education, the indicators in the first key indicator report highlighted a number of concerns that have now informed the general understanding of the social dimension challenges to be addressed in the European Higher Education Area (Eurostat, 2009). The report revealed that:

- Alternative, non-traditional ways of entering and studying were not very widespread.
- Across the EHEA, the majority of students tended to enter higher education with a traditional qualification directly after graduating from secondary school to pursue full-time studies.
- De-facto part-time students, i.e. those spending less than the required amount of time on their studies, made up almost a third of all students in some countries, regardless of their official status.
- The student populations in the EHEA were found to be largely female, with women making up the majority of entrants to higher education in nearly all countries.
- Large gender differences across the fields of study were noted, however – in the sciences, only a third of new entrants were female.
- A common pattern across all Bologna countries was the strong relationship between parental education background and students' educational achievement. The chances of obtaining higher education were much higher for children of highly educated parents than for their peers whose parents did not complete higher education themselves.
- Students' socio-economic background was also found to be strongly related to short-term mobility, with students from highly educated families being up to more than three times more like to study abroad than students from a less highly educated family.

These features of social dimension realities have all been examined in subsequent data-driven reports. Furthermore, the analysis of the framework conditions, particularly the funding of HE, showed that private funding had increased in almost all Bologna countries in previous years. Fees paid by students to higher education institution accounted for up to a quarter of their monthly budgets. The authors pointed out that in order to finance their studies, many students relied on their family and/or job as a main source of income, cautioning that such a lack of financial independence from parents may have an impact on the socioeconomic fabric of the student population, especially if state support is insufficient to compensate for lacking family income.

For countries with available data, average unemployment rates for higher education graduates were low, although this varied by country and field of study. Higher education graduates earned significantly higher wages than medium- and low-educated employees, with men, in turn, earning more than women. Despite these positive findings, data revealed that in the Bologna countries, around one fifth of workers were vertically mismatched, i.e. working in a position not matching their level of education.

For many indicators, the patterns highlighted in the Key Indicators report were confirmed in the following Implementation report (European Commission/EACEA/Eurydice, 2012). In addition, new data showed that a migratory background also limited the odds to study in higher education in several

countries, although generally not as severely as educational background. Flexible learning arrangements (formal and de-facto part-time students) continued to serve predominantly mature (older) students. With regard to alternative access routes into HE, the authors noted 'very little developments […] taking place across the EHEA' ibid., p. 149), as Bologna countries appear to either have a fully established system of RPL in place, or have not yet undertaken measures in this regard. Accordingly, the student populations include varying shares of mature and/or delayed transition students.

In the face of the diversity of fees and support systems found across the EHEA – from situations where no students pay fees and those where all receive support, and to situations where all students pay fees and few receive support – the authors highlighted the importance of balancing student fees and available support systems. Employability indicators showed that higher education still improved employment prospects in most countries, and contributed to finding a job faster than with lower-level degrees, as well as to higher earnings. Recent graduates, however, were found to face difficulties in entering the labour market in around half of the EHEA countries. The authors note the difficulty associated with disentangling labour market effects from true higher education outcomes, and point towards the overall lack of comparable and reliable indicators on employability for all Bologna countries.

Three years later, some progress was noted, particularly concerning the recognition of prior non-formal and informal learning and alternative access routes in general (European Commission/EACEA/Eurydice, 2015b). Employment indicators reflected the aftermath of the financial crisis, and indicated that in around a third of the countries with available data, higher education graduates no longer have the most secure position in the labour market. In light of these findings, the need for more detailed information and data on graduates, also on the social dimension of employability, was stressed. In the other areas, few developments could be seen.

The most recent Implementation report (European Commission/EACEA/Eurydice, 2018) bluntly summarises the (lack of) progress on the social dimension as follows:

Disadvantaged learners still face access barriers to higher education; students from low and medium-educated families are strongly under-represented, and are more likely to enter higher education with a delay; gender imbalances, if improving slightly, still persist and remain marked in some discipline areas with significant implications for the labour market and society; and life-long learning is still not a reality for learners in many countries. In addition to barriers to access, disadvantaged students also face difficulties in completing higher education, dropping out in higher proportions. And yet, despite evidence of these trends over a number of years, only a few countries have introduced measures in recent years to improve the conditions for under-represented groups to access and complete higher education. An area of particular concern is the recognition of prior non-formal and informal learning, both for facilitating alternative access routes to higher education, and enabling non-formal and informal learning to be recognised and credited during studies. Despite being emphasised again as an important tool by the Yerevan Communiqué ([63]), 'no education system has taken concrete action to introduce a new top-level framework for the recognition of prior learning since the 2015 Ministerial Conference' ([64]).

Some exceptions to these negative trends were noted: monitoring tools and performance indicators, as well as the introduction of longer-term quantitative objectives and targets, are examples of positive developments on the topics of the social dimension. The unemployment situation of recent graduates had also improved since the previous 2015 Bologna Process Implementation Report, and the income levels of HE graduates had also increased, although these patterns could not be identified in all

([63]) Yerevan Communiqué, paragraph 110.

countries. The overall conclusion nevertheless stated that the social dimension has been slow to develop, and often has done so without an overarching framework to guide and support implementation, leaving 'a lot of room for improvement' (European Commission/EACEA/Eurydice, 2018; p. 214). The report also called for systematic efforts to improve the relationship between higher education and the labour market and (again) efforts to improve data collection in these areas.

4.1.5. Stakeholders' activities regarding the social dimension

Throughout the process, different stakeholders have observed, commented on, and actively shaped the social dimension in the Bologna Process. The European Students' Union (ESU) – upon whose initiative the social dimension was introduced into the Prague Communiqué – has been repeatedly recognised as the strongest advocate for the social dimension (Vukasovic, 2017; Yağci, 2014). The 'Bologna with Student Eyes' reports, student unions' assessments of the developments in the Bologna Area in time for the ministerial conferences since 2009 (European Students' Union, 2009, 2012, 2015, 2018) have been consistent in pointing out the discrepancy between official commitments to the social dimension and the apparent lack of actual priority given to it in implementing policy measures. The latest 'Bologna with Student Eyes' report concedes 'some indicative trend of improvement in acknowledging the importance of working on the social dimension across Europe' (p. 3), but nevertheless finds 'the overall situation absolutely insufficient' (p. 3). ESU's most recent social dimension policy paper (European Students' Union, 2019) again calls on all stakeholders to prioritise the social dimension.

Activities of the European Association of Institutions in Higher Education (EURASHE) in the realm of the social dimension have concentrated on the role of universities of applied sciences in creating equitable conditions for students from all backgrounds. In this vein, the association (as well as ESU) was a partner in the IDEAS project, which aimed at increasing equitable access, participation and completion by producing a toolbox of effective equity approaches. (Tupan-Wenno, M., Camilleri A., Fröhlich M., King S., 2016.) In addition, the recent 6th University of Applied Sciences Leadership Forum was dedicated to the topic of social inclusion as well as civic and democratic values. Furthering short-cycle higher education to enhance opportunities for socially vulnerable groups is also an important aspect of EURASHE's engagement for the social dimension.

The European University Association (EUA) has been an advocate of lifelong learning since the start of the Bologna Process, and notably published a Charter on Lifelong Learning (European University Association, 2008). The Charter asks universities to commit to widening access and lifelong learning, addressing a diverse student population, and calls for concerted action by governments to promote social equity and an inclusive learning society. The Charter was mentioned in the Leuven/Louvain-la-Neuve Communiqué (2009) as a useful input for developing strong partnerships between public authorities, higher education institutions, students, employers and employees ([65]).

Some years later, EUA followed up with a project addressing various aspects of developing institutional lifelong learning strategies and their implementation in universities; specifically focusing on providing opportunities for a widening circle of learners (Smidt and Sursock, 2011). Universities' approaches to the social dimension have also been the focus of recent projects investigating universities' strategies and approaches towards diversity, equity and inclusion (Claeys-Kulik and Jørgensen, 2018; Claeys-Kulik, Jørgensen and Stöber, 2019) and within the project of Higher

([64]) Ibid., p. 15.

([65]) Leuven and Louvain-la-Neuve Communiqué, adopted in Leuven and Louvain-la-Neuve, 28-29 April 2009.

Education Reform Experts ([66]). EUA activities have also extended beyond the European Higher Education Area, reaching out to Africa, Asia, and Latin America.

Beyond member states and consultative partners of the process, the European Commission as a member of the Bologna Process, after focusing mainly on the social dimension's relevance for economic prosperity and growth in the first decade of the process (Yağci, 2014), has made reducing social divisions in higher education a priority for action in the latest European higher education agenda (European Commission, 2017a), and promotes it as a way to enhance the social dimension of Europe as a whole (European Commission, 2017b). Currently, the European Commission is supporting the development of an inclusive higher education system through Peer Learning Activities, as well as financing studies (Kottmann et al., 2019; Orr, Usher, Haj, Atherton, and Geanta, 2017) and projects to build an evidence base about the social dimension in Europe ([67]).

4.2. Statistical data on access, participation and employability

This section presents statistical data on higher education students in four respects related to their background and characteristics: the impact of parental education on higher education participation, gender balance, participation of immigrant students and mature students in higher education, and data on part-time students. Furthermore, there will be two indicators related to the employability of graduates.

4.2.1. Access and participation

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

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

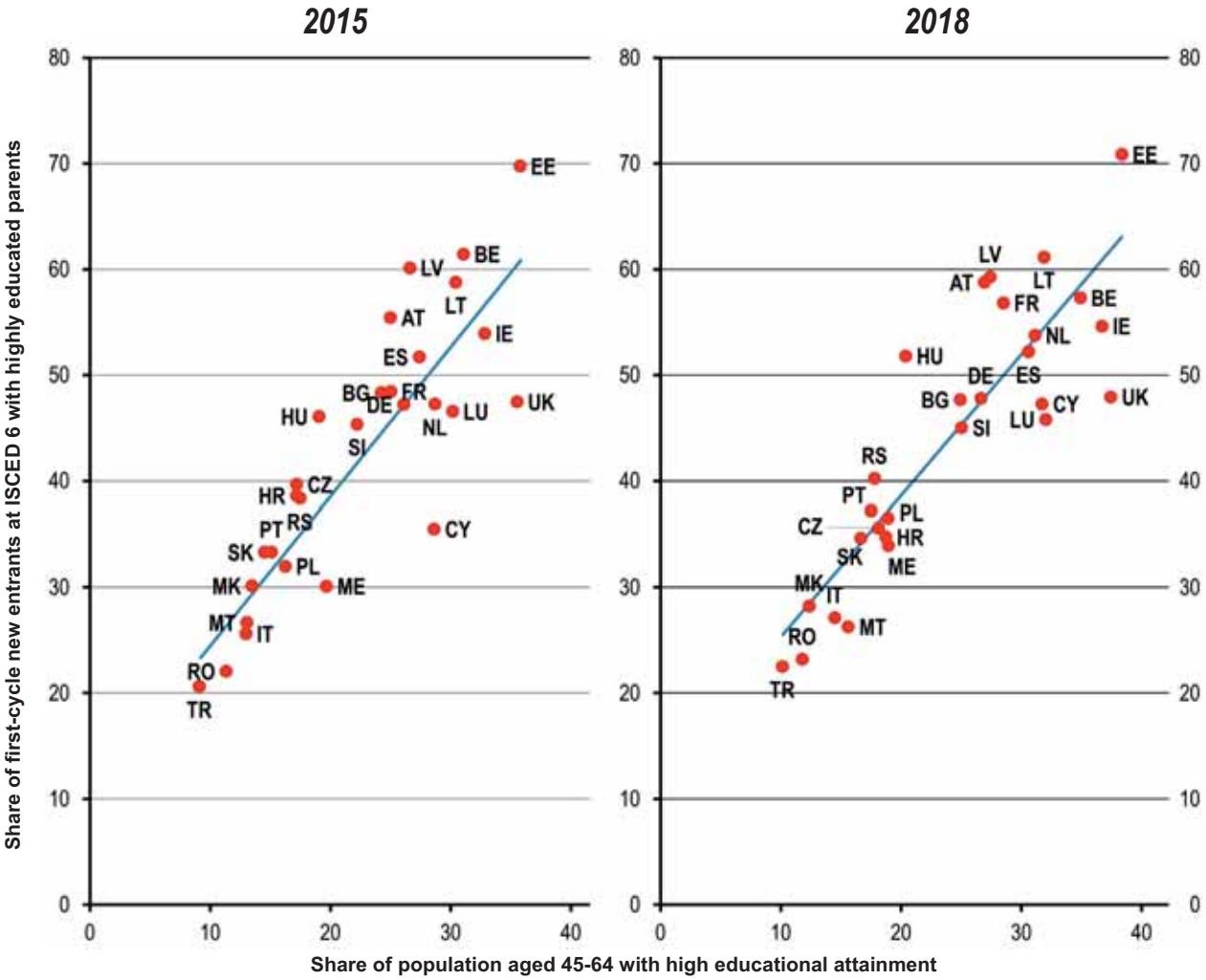
Parental background

The educational background of parents is often regarded as one of the most important factors influencing the chances of learners to participate in higher education. It is widely known that students with parents with tertiary educational attainment are over-represented in higher education study programmes. Figure 4.1 depicts the proportion of fist-cycle new entrants (ISCED 6) with parents of high educational background (ISCED 5-8) in the hypothetical parents' cohort (population aged 45-64 with high educational background). The figure compares the situation in 2015 and 2018.

([66]) http://supporthere.org/

([67]) e.g., EUROSTUDENT (www.eurostudent.eu) on the social and economic conditions of students, Eurograduate feasibility, Eurograduate pilot (see Council Recommendation of 20 November 2017 on tracking graduates; Council of the European Union, 2017), U-Multirank, Peer Learning for the Social Dimension (PL4SD).

Figure 4.1: Relationship between the educational background of first-cycle new entrants (ISCED 6) and the educational attainment of their parents' cohort (population aged 45-64), 2015 and 2018



Source: Eurostat, EU-LFS.

Notes:

High educational attainment: ISCED 5-8. For definitions of ISCED levels, see the Glossary and Methodological Notes.

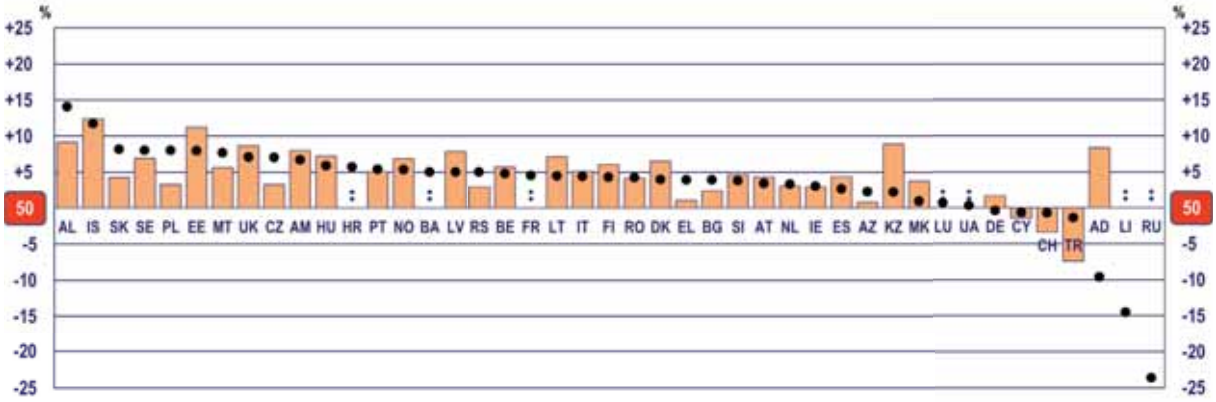
New entrants: Students who are entering any programme at a given level of education for the first time.

As seen from both scatterplots, there is a very clear linear relationship, around 0.86 and 0.87 in 2015 and 2018 respectively. Hence, the overall situation is very similar in both years. Countries are clustering around the trend line denoting that the share of new entrants with highly educated parents among all newly first-cycle entrants depends strongly on the high educational attainment of their parent's cohort. Thus, it would seem that the educational background of parents is still to a large extent a predictor of whether you are likely to participate in higher education. Given that the time difference between these two datasets is only three years, significant changes in this type of data cannot be expected to happen.

Gender

Equal opportunities for men and women to participate in higher education is a central concern of the social dimension. It is important to consider not only trends regarding overall numbers, but also gender distribution in different fields of study. Figure 4.2 illustrates the share of women among new entrants in tertiary education in 2005 and 2017.

Figure 4.2: Percentage change in the share of women among new entrants in tertiary education (ISCED 5-8), 2005 and 2017



%	AL	IS	SK	SE	PL	EE	MT	UK	CZ	AM	HU	HR	PT	NO	BA
2005	59.2	62.5	54.3	56.9	53.3	61.2	55.6	58.7	53.3	58.0	57.3	:	55.1	56.9	:
2017	64.1	61.7	58.2	58.0	58.0	57.9	57.7	57.1	57.0	56.7	55.9	55.7	55.4	55.4	55.0
Variation (%) 2005-17	8.3	-1.2	7.2	2.0	8.9	-5.4	3.7	-2.7	7.0	-2.3	-2.4	:	0.6	-2.7	:
	LV	RS	BE	FR	LT	IT	FI	RO	DK	EL	BG	SI	AT	NL	IE
2005	57.9	52.9	55.7	:	57.2	55.1	56.0	54.2	56.6	51.1	52.4	54.6	54.3	53.0	53.0
2017	55.0	55.0	54.8	54.5	54.5	54.4	54.3	54.3	54.0	54.0	53.9	53.8	53.4	53.4	53.1
Variation (%) 2005-17	-4.9	3.9	-1.7	:	-4.7	-1.3	-3.1	0.2	-4.5	5.6	2.9	-1.5	-1.6	0.6	0.2
	ES	AZ	KZ	MK	LU	UA	DE	CY	CH	TR	AD	LI	RU		EHEA
2005	54.3	50.8	58.9	53.8	:	:	51.7	48.6	46.6	42.6	58.3	:	:		54.8
2017	52.7	52.3	52.3	51.0	50.7	50.3	49.6	49.3	49.3	48.6	40.4	35.5	26.4		54.3
Variation (%) 2005-17	-3.1	3.0	-11.3	-5.2	:	:	-4.0	1.6	5.7	14.1	-30.7	:	:		-0.9

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

Notes:

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

New entrants: Students who are entering any programme at a given level of education for the first time. Data for the year 2010 instead of 2005 for Serbia, Portugal and Latvia.

Variation means the change between 2005 and 2017 in percentage, not percentage points.

In the vast majority of countries, the percentage of women entering tertiary education exceeded 50 % in 2017, being over 60 % in Albania and Iceland. Luxemburg, Ukraine, Germany, Cyprus and Switzerland almost reached gender parity. Male entrants is the majority in Turkey and Andorra, but gender imbalance was stronger in Liechtenstein and Russia where female participation was below 36 %. As the figure demonstrates, looking at the change since 2005, the EHEA median stayed relatively stable (around 54 %), but it had a slight decrease over the twelve-year period.

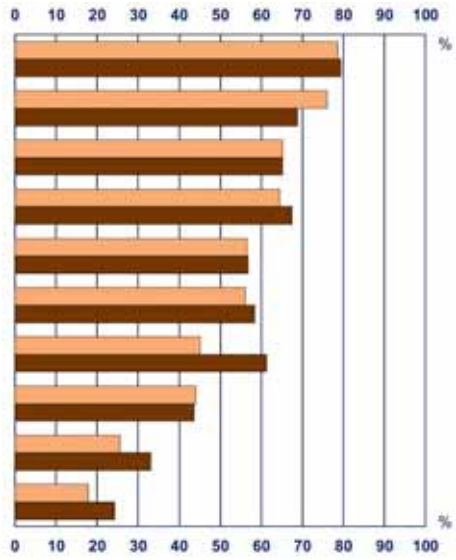
This indicates that although men remain under-represented in higher education, but to a lesser degree in most countries than 12 years ago. Decreases of over three percentage took place in Finland, Spain, Germany, Denmark, Lithuania, North Macedonia and Estonia; nevertheless, in Estonia, the share of women among new entrants was still among the highest in the EHEA.

Over the period examined, Austria, Ireland and Cyprus almost doubled the absolute number of women starting a study programme in tertiary education. Despite this doubling the number of students, the

balance between male and female student population remained nearly the same. Albania and Turkey however managed to triple the number of female entrants since 2005, achieving also the highest increase in the share of women (8.3 % and 14.1 % respectively), along with Poland (8.9 %). A few other countries saw a further increase in the share of women, but to a much lesser degree: Greece (5.6 %), Switzerland (5.7 %), Czechia (7.0 %) and Slovakia (7.2 %).

While the overall change in shares of female and male students is one important part of the story, a clearer picture emerges through analysis of gender shares in different study fields. Figure 4.3 depicts the median share of women among enrolled students in the first and second cycle by field of education.

Figure 4.3: 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), 2017



	ISCED 6	ISCED 7
Education	78.6	79.4
Health and welfare	76.0	68.7
Arts and humanities	65.2	65.2
Social sciences, journalism and information	64.4	67.4
Business, administration and law	56.4	56.7
Natural sciences, mathematics and statistics	56.0	58.3
Agriculture, forestry, fisheries and veterinary	45.1	61.3
Services	44.0	43.6
Engineering, manufacturing and construction	25.5	33.1
Information and Communication Technologies	17.8	24.2

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

Notes:

The country coverage varies across different study fields (see the Glossary and Methodological Notes).

The median percentage of women varied quite strongly between the various fields of study in 2017. Education and health – related study fields were clearly female-dominated, while in engineering, manufacturing and construction as well as in information and communication technologies, women were markedly under-represented. In these fields of study, the median percentage of women was less than one third, and also lower in the first than in the second cycle. Services and agricultural studies are the other fields where in the first cycle the median percentage of women is below 50 %. For all other study fields, men are under-represented.

With regard to gender equality, the field of study is a more significant factor than the level of education and quite dramatic variations can be found in different fields of study.

In almost all fields, the percentage of women was higher in the second cycle. The percentage was equal, or almost equal in arts and humanities, and services. Only in health and welfare, was the median share substantially lower in the second cycle (68.7 %) than in the first (76 %) – despite still being very high.

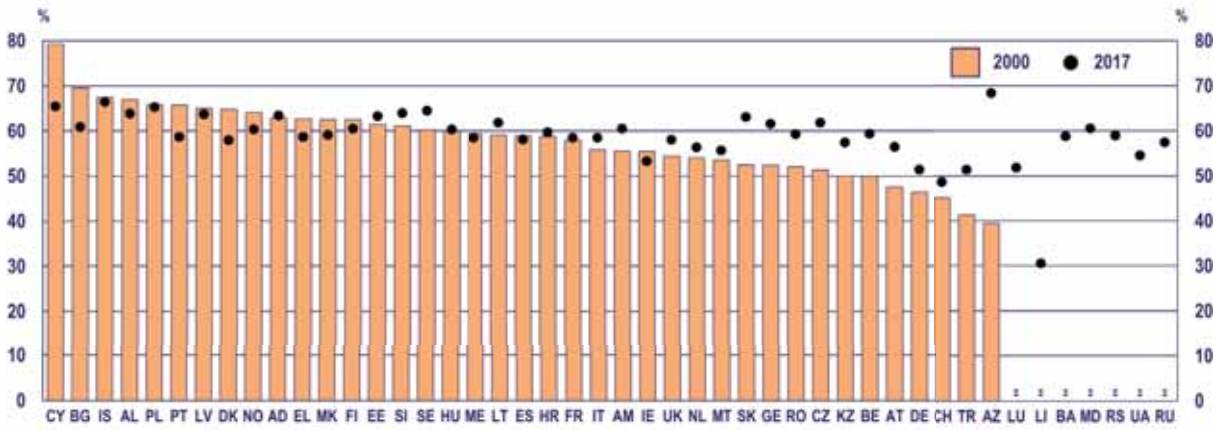
The opposite trend can be seen regarding female participation in information and communication technologies, as well as in engineering, manufacturing and construction – both fields of study where women are strongly under-represented. Here female participation is notably significantly higher in the

second cycle than in the first. Women are also enrolled in the second cycle of their studies in agriculture, forestry, fisheries and veterinary to a much greater degree – around 16 percentage points – compared to the first cycle.

The differences in gender participation by study fields should be seen in the context of total enrolment numbers in these fields. Across the whole EHEA, more than a quarter (25.9 %) of the students in the first and second cycle of tertiary education (ISCED 6 and 7) were enrolled in study programmes in the fields of business, administration or law in 2017. Nearly 15 % were studying engineering, manufacturing or construction, while a considerable share of students were enrolled in arts and humanities (12.1 %), health and welfare (11.8 %), as well as social sciences, journalism or information (11.1 %). Women accounted for the vast majority of the students within the latter two fields (64 % and 70.4 % respectively); for business and administration women slightly outnumbered men at a rate of 50.3 %. By contrast, almost three quarters of the students in engineering or related fields were male (72.3 %). When these numbers are considered in relation to the gender split in different fields, the largest number of female students are found in business-related programmes with health studies comprising the second largest field of education, followed by arts and social sciences.

Figure 4.4 shows the percentage of female graduates in tertiary education programmes for bachelor and master programmes or equivalent.

Figure 4.4: Percentage of female graduates in bachelor and master programmes, 2000 and 2017



%	CY	BG	IS	AL	PL	PT	LV	DK	NO	AD	EL	MK	FI	EE	SI	SE	HU	ME	LT	ES	HR	FR	IT
2000	79.3	69.6	67.4	66.9	65.9	65.7	65.0	64.9	64.1	63.0	62.7	62.5	62.5	62.5	61.5	61.1	60.3	60.0	59.3	59.1	58.9	57.9	55.8
2017	65.5	60.9	666.4	63.8	65.3	58.7	63.7	58.0	60.3	63.4	58.7	59.1	59.1	60.5	63.2	63.9	64.4	60.3	58.5	61.8	58.2	58.4	58.4
	AM	IE	UK	NL	MT	SK	GE	RO	CZ	KZ	BE	AT	DE	CH	TR	AZ	LU	LI	BA	MD	RS	UA	RU
2000	55.5	55.5	54.4	54.0	53.5	52.5	52.4	52.0	51.3	50.0	50.0	47.5	46.4	45.1	41.3	39.4	:	:	:	:	:	:	:
2017	60.5	53.3	58.1	56.3	55.6	63.0	61.6	59.2	61.8	57.4	59.4	56.5	51.5	48.6	51.4	68.3	51.8	30.5	58.8	60.5	58.9	54.5	57.4

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

In 2000, the largest percentage of women in bachelor and master programmes (over 65 %) were found in Cyprus, Bulgaria, Iceland, Albania, Poland, Portugal and Latvia. The lowest rates (less than 50 %) were found in Austria, Germany, Switzerland, Turkey and Azerbaijan. The largest increases in female participation took place in Azerbaijan (29 percentage points), Slovakia, Czechia and Turkey (over 10 percentage points) for bachelor and master degrees. There were moderate increases in most countries, but some countries experienced a decrease. The highest decrease took place in Cyprus (almost 14 percentage points), Bulgaria and Portugal (over 7 percentage points).

Migrant status

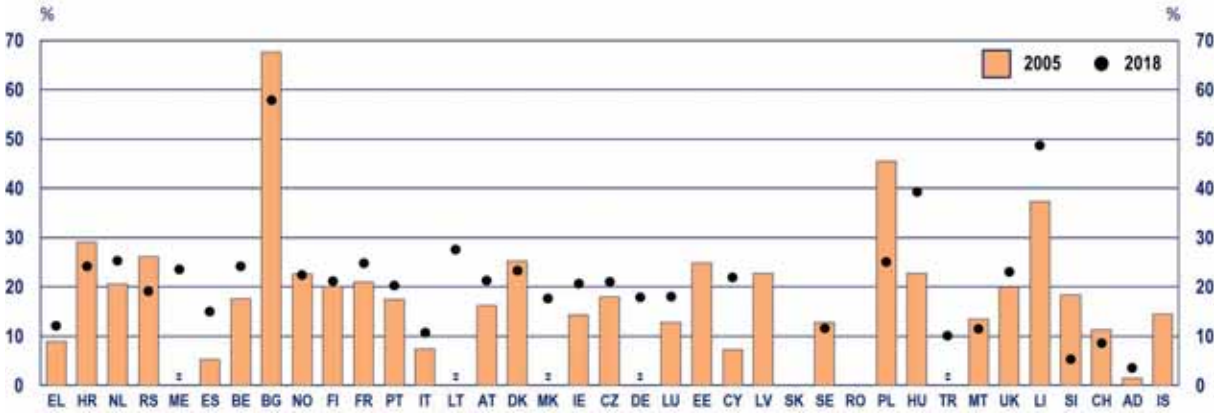
Having a migrant background is also considered as an important factor influencing the chances of learners accessing higher education, especially if it coincides with low parental education. Immigrants and children of immigrants might lack the sufficient cultural, economic and social capital, which have important effects on educational success (see e.g. Griga and Hadjar, 2014).

Yet, it is difficult to gather comparable information on the participation of migrant students in higher education. Eurostat data presented in Figure 4.4 uses the country of birth as the criterion defining migrants, and this has two major limitations. Firstly, the group of foreign-born students includes not only migrants who become students, but also students who moved to the country just for the purposes of study, i.e. mobile students. Not only does the concept of 'foreign born' mix groups with very different characteristics, but when numbers of mobile students are substantial, as they are in a number of countries, the picture is distorted.

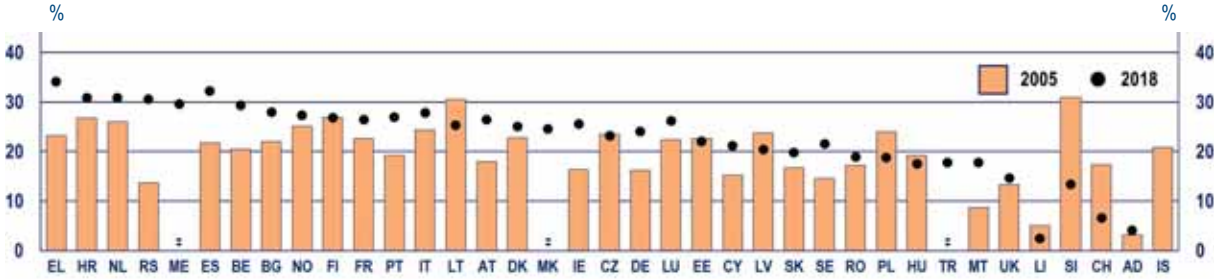
The second limitation of this data is that children of immigrants born in the country (often referred to as 'second-generation immigrants') are excluded. For these reasons, data have to be interpreted with caution. Figure 4.5 presents the participation rates in tertiary education of students aged 18 to 29 as a percentage of the respective total population based on their migration status, showing the situation in 2005 and 2018. The graph showing the foreign-born population thus provides the participation of the 18-29 year olds compared to the total foreign-born population in this age group, and similarly the graph below shows the participation of native-born 18-29 year olds as a proportion of the total native-born population in this age group. This enables clear comparison between the two groups.

Figure 4.5: Participation rates in tertiary education among people aged 18 to 29, foreign-born, native-born and total population, 2005 and 2018

Foreign-born:



Native-born:



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

%	EL	HR	NL	RS	ME	ES	BE	BG	NO	FI	FR	PT	IT	LT	AT	DK	MK	IE	CZ
Foreign-born (2005)	8.9	29.1	20.6	26.2	:	5.3	17.5	67.6	22.7	20.1	21.1	17.5	7.5	:	16.2	25.3	:	14.3	18.0
Foreign-born (2018)	12.1	24.2	25.4	19.2	23.6	15.0	24.2	57.9	22.4	21.2	24.8	20.3	10.7	27.6	21.3	23.4	17.7	20.6	21.1
	DE	LU	EE	CY	LV	SK	SE	RO	PL	HU	TR	MT	UK	LI	SI	CH	AD	IS	
Foreign-born (2005)	:	12.8	24.9	7.3	22.7	:	12.8	:	45.5	22.8	:	13.5	20.0	37.4	18.3	11.3	1.6	14.5	
Foreign-born (2018)	17.9	18.0	:	21.9	:	:	11.6	:	25.0	39.3	10.1	11.5	23.0	48.7	5.4	8.6	3.6	:	

%	EL	HR	NL	RS	ME	ES	BE	BG	NO	FI	FR	PT	IT	LT	AT	DK	MK	IE	CZ
Native-born (2005)	23.3	26.8	26.0	13.7	:	21.8	20.5	22.0	25.2	26.9	22.6	19.3	24.4	30.5	18.0	22.7	:	16.3	23.5
Native-born (2018)	34.1	30.8	30.9	30.6	29.6	32.3	29.4	28.0	27.3	26.9	26.5	27.0	27.9	25.4	26.4	25.1	24.6	25.6	23.2
	DE	LU	EE	CY	LV	SK	SE	RO	PL	HU	TR	MT	UK	LI	SI	CH	AD	IS	
Native-born (2005)	16.2	22.4	22.6	15.3	23.7	16.8	14.6	17.3	24.0	19.2	:	8.7	13.3	5.1	30.9	17.3	3.2	20.9	
Native-born (2018)	24.1	26.3	22.1	21.2	20.4	19.8	21.6	19.0	18.8	17.5	17.7	17.8	14.7	2.4	13.4	6.6	4.1	:	

%	EL	HR	NL	RS	ME	ES	BE	BG	NO	FI	FR	PT	IT	LT	AT	DK	MK	IE	CZ
Total (2005)	21.9	25.6	25.4	13.6	:	19.4	20.1	16.5	24.9	26.6	22.5	19.1	23.1	30.5	17.7	22.9	26.1	16.0	23.4
Total (2018)	32.7	30.5	30.4	30.1	29.3	29.1	28.6	28.2	26.8	26.5	26.5	26.5	25.7	25.4	25.4	24.9	24.7	24.4	23.1
	DE	LU	EE	CY	LV	SK	SE	RO	PL	HU	TR	MT	UK	LI	SI	CH	AD	IS	
Total (2005)	15.6	19.2	22.7	13.6	23.7	16.8	14.3	17.3	24.0	19.2	12.5	8.5	14.2	14.2	30.5	15.9	2.4	20.2	
Total (2018)	23.0	22.6	21.7	21.3	20.6	19.8	19.5	19.0	18.9	17.9	17.5	17.0	16.1	14.8	12.8	7.0	4.0	:	

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

The total participation rates of young adults in tertiary education in 2018 ranged across the EHEA from a minimum of 4 % in Andorra to a maximum of 32.7 % in Greece. The vast majority of countries with available data had more than 20 % of the total young population comprised of highly educated students.

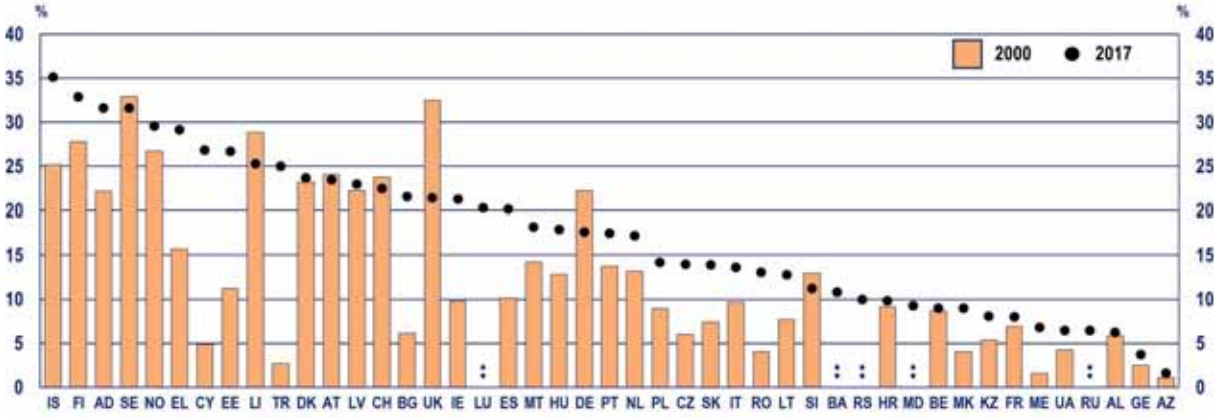
In 2018, in 26 out of 36 countries, the level of participation was lower for foreign-born students compared to native-born counterparts. Disparities are much more evident in southern Mediterranean countries with participation rates being more than twice as high as for natives (Italy, Greece and Spain). The situation is completely opposite in the United Kingdom, Bulgaria, and especially Hungary for which the share of foreign-born students rates was almost twice as high as that of native-born students.

As a general rule, trends for native-born students follow closely the pattern of the total young population, since they comprise the largest part of it. The most pronounced increase in participation of native-born students can be seen in Serbia and Malta (more than 100 %), while Switzerland had the largest decrease among EHEA countries (61.8 %) in this category. During this thirteen-year period, the share of foreign-born students increased the most in Cyprus (200 %), Andorra (181.2 %) and Spain (132 %), but changes in this direction were also found in 15 other countries out of the 27 with available data.

Mature students

An important aspect of the social dimension is that higher education should be open to non-traditional learners who missed the opportunity to enter higher education when leaving secondary education. The number of over 30-year students can indicate different issues. First, it may be the result of longer study times in general, which has been the case in the Nordic countries historically, for example. Second, it can indicate the number of students with a delayed transition to higher education (starting studies at least two years after finishing secondary education). Also possible is a combination of these issues, for example in Germany (longer study times combined with longer school time and compulsory military service). Figure 4.6 examines the proportion of 'mature' students in tertiary education who are aged 30 years or older in 2000 and 2017.

Figure 4.6: Percentage of students enrolled in tertiary education, 30 or more years old, in year 2000 and 2017



%	IS	FI	AD	SE	NO	EL	CY	EE	LI	TR	DK	AT	LV	CH	BG	UK	IE	LU	ES	MT	HU	DE	PT
2000	25.2	27.8	22.2	32.9	26.8	15.7	4.9	11.2	28.9	2.7	23.2	24.1	22.2	23.8	6.2	32.5	9.8	:	10.1	14.2	12.9	22.3	13.7
2017	35.2	32.9	31.6	31.6	29.6	29.1	26.9	26.7	25.3	25.0	23.7	23.5	23.0	22.5	21.6	21.4	21.3	20.3	20.2	18.2	17.9	17.7	17.5
%	NL	PL	CZ	SK	IT	RO	LT	SI	BA	RS	HR	MD	BE	MK	KZ	FR	ME	UA	RU	AL	GE	AZ	EHEA
2000	13.2	8.9	6.0	7.4	9.6	4.0	7.7	13.0	:	:	9.2	:	8.7	4.0	5.4	6.9	1.6	4.2	:	5.8	2.5	1.1	10.1
2017	17.2	14.2	14.0	13.9	13.6	13.0	12.8	11.3	10.8	9.9	9.8	9.3	9.0	9.0	8.1	8.0	6.8	6.5	6.5	6.3	3.7	1.6	17.3

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

Notes:

EHEA: Refers to the EHEA median. Data for Greece, Cyprus, Liechtenstein, Switzerland, Croatia, Albania and Georgia for 2005 instead of 2000.

When looking at the EHEA-median, it has increased from 10.1 % in 2000 to 17.3 % in 2017, which is a significant increase. While there probably is not one clear explanation for the increase of mature students in most countries, one reason for the increases from 2000 could be the effects of the 2008 economic crisis, and the weakened job prospects in many countries even after subsequent economic recovery. Thus, it may be more attractive to stay in education for longer, and study for another degree, for example, if you have not found a job matching your education.

While there has been an increase in the number of mature students overall, according to the figure, student population is composed mainly of young participants and mature students are always in a minority. For 2017, the share of mature students was below 10 % of the tertiary student population in 13 countries out of 45 in total, with a minimum of 1.6 % in Azerbaijan and 3.7 % Georgia. A higher share, between 10 % and 20 % was recorded again in 13 countries; yet, the highest share, exceeding 20 % of all students, was found in 19 countries, with the highest share of around 35 % in Iceland.

Comparing the percentage of mature students between 2000 and 2017, reveals that nearly 28 out of 35 countries have registered an increase across the EHEA area. The strongest increase was observed in Turkey, Cyprus and Montenegro, where the respective percentage moved from 2.7 % to 25 %, 4.9 % to 26.8 %, and 1.6 % to 6.8 % from 2000 to 2017 respectively. Similarly, increases took place in Bulgaria, Romania, Estonia, Czechia, North Macedonia, Ireland and Spain, where their equivalent share of mature students more than doubled. From the remaining 30 countries, half of them experienced a significant rise of more than 20 percentage points compared to 2000, eight countries a moderate grow between 2 % and 20 %, while eight countries decreased the share of mature students by at least 2 percentage points. At the end of the spectrum of the last group are Germany (20.1 %) and the United Kingdom (4 %), where the share of mature students has been continuously declining during this period. It is worth mentioning however, that although the four Nordic countries – including Iceland, Norway, Finland and Sweden – as well as Andorra were not consistent with a systematic upward trend, they have been on the top of the countries with the highest number of mature students within the examined period of time.

The main output of higher education is higher education attainment that indicates the proportion of the population having obtained a higher education qualification. Figure 4.7 shows the percentage of persons with tertiary education by age group, year 2005 and 2018.

Figure 4.7: Percentage of persons with tertiary education by age group, year 2005 and 2018

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

% 2018	CY	UA	IE	LT	LU	CH	KZ	NO	UK	NL	SE	BE	IS	FR	DK	ES	EE	PL	EL	LV	SI	AT
23-34 years old	58.5	57.9	56.2	55.6	53.7	51.2	50.8	48.5	48.1	47.6	47.6	47.4	47.1	46.9	46.8	44.3	43.7	43.5	42.8	41.6	40.7	40.5
35-44 years old	49.1	51.7	53.8	49.7	53.3	49.5	39.7	48.8	49.6	44.2	52.3	45.8	51.9	44.9	46.0	44.2	44.0	39.8	34.2	39.6	40.4	37.5
45-54 years old	35.3	47.2	42.9	33.7	38.5	40.4	30.2	42.0	40.3	34.1	39.5	38.8	43.4	32.8	36.4	35.1	38.5	23.0	29.2	29.0	28.7	29.6
55-64 years old	27.9	43.6	31.2	30.1	27.4	33.6	21.2	34.2	34.4	29.1	32.6	30.7	31.1	24.0	30.3	25.1	38.2	15.3	21.9	25.9	21.2	23.8
% 2018	FI	MT	SK	AD	HR	PT	ME	BG	MK	CZ	AL	RS	DE	TR	HU	MD	IT	LI	BA	RO	EHEA	
23-34 years old	40.3	39.6	37.2	35.5	35.4	35.1	34.3	34.0	33.6	33.3	32.8	32.8	32.3	32.1	30.6	30.5	27.7	25.9	25.3	24.9	40.6	
35-44 years old	50.3	29.0	26.0	32.0	29.7	32.0	22.9	29.1	20.8	26.7	15.5	26.5	31.5	19.4	28.8	21.7	23.0	25.0	13.1	22.7	38.6	
45-54 years old	47.8	21.7	17.7	23.7	18.8	20.5	16.0	26.3	11.2	18.9	12.3	18.0	27.0	11.3	22.5	14.6	15.7	20.7	8.2	13.8	28.9	
55-64 years old	39.7	9.9	15.6	17.5	18.7	14.2	22.3	23.5	13.6	17.3	9.4	17.6	26.3	8.5	18.2	13.3	13.0	15.9	8.5	9.4	22.9	

% 2005	CY	UA	IE	LT	LU	CH	KZ	NO	UK	NL	SE	BE	IS	FR	DK	ES	EE	PL	EL	LV	SI	AT
23-34 years old	41.3	45.36	40.7	36.9	37	31	28.9	39.5	35.6	33.3	36.5	40.6	35.8	39.9	39.8	40.7	33.1	25.4	24.9	21.7	24.7	19.7
35-44 years old	28.2	45.78	30.4	24.7	26.7	31.8	24.19	34.9	29.6	28.1	28.2	33.4	34	25.4	34.8	30.3	35.7	15.7	25	21.5	21.5	19.1
45-54 years old	25.9	44.91	21.8	24	21.9	28.6	22.38	30.4	28.2	28.1	27.6	26.9	28.8	19.2	32	21.3	34.5	12.1	18.7	18.4	17.5	17.3
55-64 years old	15	37.08	16.7	19.1	18.6	22.1	18.84	24	23.7	22.1	24.8	21.8	20.5	16.1	27.3	14.5	28.5	12.7	11.3	19.3	16.3	13.7
% 2005	FI	MT	SK	AD	HR	PT	ME	BG	MK	CZ	AL	RS	DE	TR	HU	MD	IT	LI	BA	RO		
23-34 years old	37.5	17.8	16.2	25.64	18	19	20.26	23.7	11.59	14.2	:	18.98	22.5	16.8	19.6	14.07	16.2	21.99	:	13.5		
35-44 years old	40.9	10.8	12.9	20.63	15.3	12.6	16.58	23.1	13.49	14.2	:	16.88	26.3	11.4	17.2	15.92	12.8	20.45	:	10.7		
45-54 years old	33.6	8.7	13.9	17.33	16.1	10.3	17.11	22.1	15.3	12.9	:	17.19	25.6	8.3	16.3	14.67	11.2	16.58	:	10.6		
55-64 years old	26.5	8.2	12	14.18	15.2	7.3	15.21	17.1	13.76	10.7	:	16.08	22.9	7.4	14.6	12.5	8	12.41	:	8.5		

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

Notes:

EHEA: Refers to the EHEA median, which was calculated for 2018 based on countries with available data for both years.

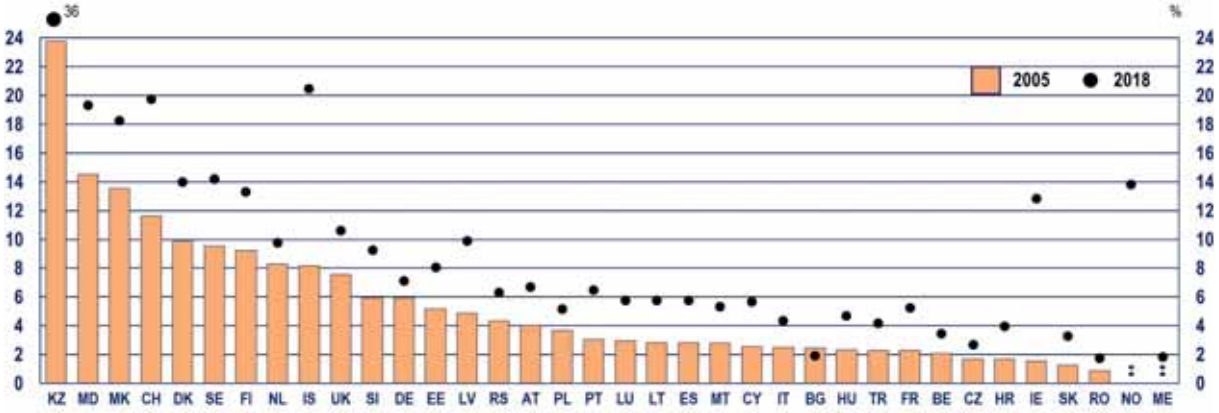
In 2018, the EHEA median was 40.6 % for the 25-34 age group, 38.6 % for the 35-44 age cohort, 28.9 % for the 45-54-year-old group and 22.9 % for the 55-64 age group. From 42 countries with available data, 17 countries were systematically below the median in all age groups, with Bosnia and Herzegovina and Turkey deviating the most. In the youngest age group, higher education attainment reached 40 % in more than half of the countries; likewise, it reached slightly less than half of the countries in the second youngest age group. It was only Ukraine that reached this threshold in all age groups. At the other end of the scale, the lowest rates in almost all age groups were found in Romania and Bosnia and Herzegovina, yet neither of them was below 20 % in the younger generation.

The dominant pattern within EHEA was that the lower the age, the higher the rate of education attainment, except for Finland, Sweden and to a certain extent the United Kingdom, where adults aged 35 to 44 were more likely to have a higher education degree than their younger counterparts, with a share of 10 %, 4.7 % and 1.5 % respectively. This can be explained by the high share of mature students (30 years or older) enrolled in tertiary education particularly in Finland and Sweden (see Figure 4.6). The largest gap of more than 25 percentage points between the tertiary attainment level of the oldest and youngest age cohorts could be found in Cyprus, Malta, Kazakhstan, Poland, Luxembourg, Lithuania and Ireland. In contrast, Germany, Estonia and Finland had the smallest gap (no more than 6 percentage points).

Compared to 2005, attainment levels have been steadily rising in all EHEA countries and all age groups, especially in the youngest groups. Countries with the largest increase in tertiary attainment in the youngest age group were North Macedonia, Czechia and Slovakia. Finland and Spain showed the smallest changes, but their attainment level was already high, around 40 %.

Having information on the share of the population obtaining their tertiary education degree in adulthood is also important for understanding the position of mature students in higher education. Figure 4.8 shows large variations among countries in this regard.

Figure 4.8: Adults (30-64) who attained their tertiary education degree during adulthood (aged 30-64) as a percentage of all adults (30-64), years 2005 and 2018



%	KZ	MD	MK	CH	DK	SE	FI	NL	IS	UK	SI	DE	EE	LV	RS	AT	PL	PT	LU
2005	23.8	14.5	13.6	11.6	9.9	9.5	9.2	8.3	8.2	7.6	6.0	6.0	5.2	4.9	4.3	4.0	3.7	3.1	3.0
2018	35.6	19.3	18.3	19.7	14.0	14.2	13.3	9.8	20.5	10.6	9.3	7.1	8.1	9.9	6.3	6.7	5.2	6.5	5.8

	LT	ES	MT	CY	IT	BG	HU	TR	FR	BE	CZ	HR	IE	SK	RO	NO	ME	EHEA
2005	2.9	2.8	2.8	2.5	2.5	2.4	2.3	2.3	2.3	2.1	1.7	1.7	1.6	1.3	0.9	:	:	3.4
2018	5.8	5.8	5.3	5.7	4.4	1.9	4.7	4.2	5.2	3.5	2.7	4.0	12.9	3.3	1.7	13.8	1.8	6.4

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

For 2018, Kazakhstan and Iceland had particularly high proportion of adults aged 30-64 attaining their tertiary degree in adulthood (aged 30 or older), over 35 % and 20 % respectively. In Switzerland, Moldova and North Macedonia, as well as the four Nordic countries (namely Sweden, Denmark, Norway and Finland), the United Kingdom and Ireland, the share of adults was between 10 % and 20 %. This is in line with the fact that mature students in the Nordic countries constitute a substantial share of the student population.

A relatively high proportion of adults who achieved their higher education qualification as an adult – around one in ten – could also be observed in Latvia (9.9 %), the Netherlands (9.8 %) and in Slovenia (9.3 %). At the lower end of the scale, the percentage share was very low in Eastern European countries, with rates below 2 % in Montenegro, Bulgaria and Romania. In addition to the latter two, Austria, Germany, Hungary, Estonia, Lithuania ,Portugal, Spain, Cyprus, Malta and Turkey recorded a small percentage of adult graduates (below 8 %). This is not consistent with Figure 4.6 on mature students, whose share in the student population ranges between 17 % and 27 %. One possible explanation could be that polices supporting adults' participation have been introduced only recently, or that completion rates of mature students in these countries are quite low.

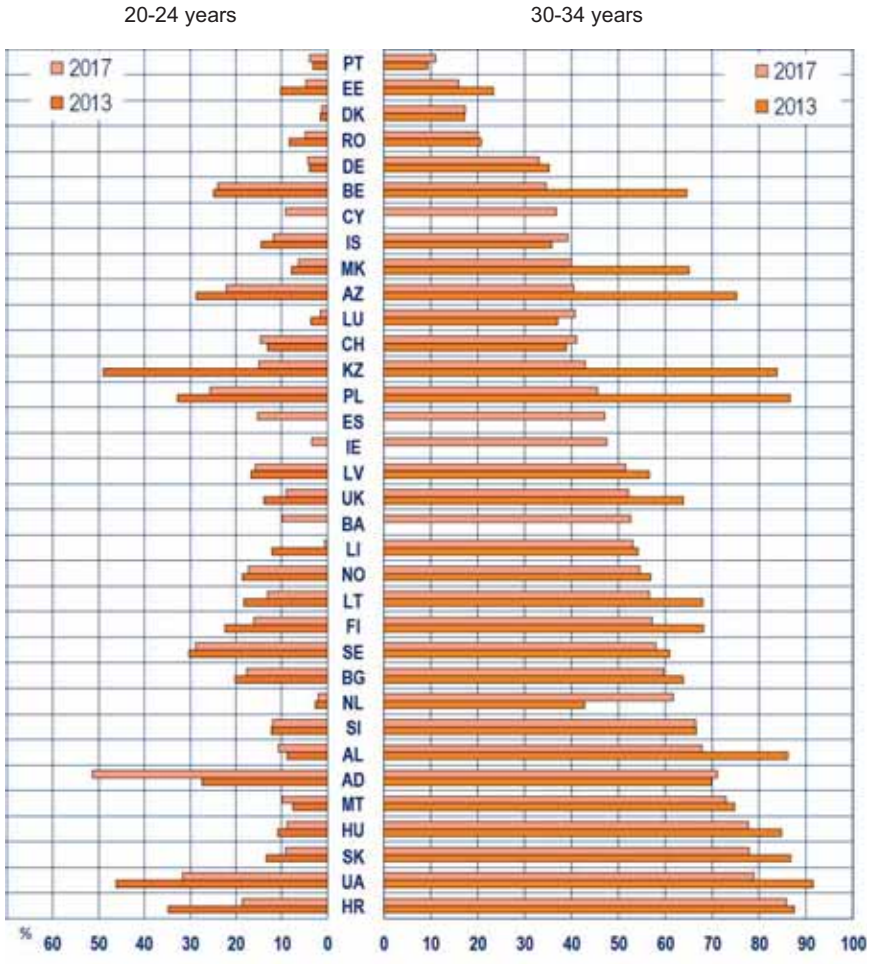
Examining the evolution of adults' graduation rates back to 2005, there has been a clear upward trend in all countries, except for Bulgaria (decrease of 21 %). Increases of more than 90 % took place in 14 out of 34 countries, and the minimum growth was found in Germany and the Netherlands, around 20 % each. All in all EHEA, the median share has almost doubled in 2018 compared to 2005 (6.5 % from 3.4 % in 2005).

Part-time students

The opportunities for part-time studies in a higher education system are also linked to issues of social dimension. Full-time study may not be possible, or at least not very easy, for people from lower socio-economic background, for example: they may have to be in full-time employment during their studies, and part-time study may also be a more feasible option due to lower fees per academic year.

Figure 4.9 shows the percentage of students enrolled as part-timers among students aged 20 to 24 and 30 to 34.

Figure 4.9: Students enrolled as part-timers in tertiary education. by country and age (%), 2013 and 2017



	%	HR	UA	SK	HU	MT	AD	AL	SI	NL	BG	SE	FI	LT	NO	LI	BA	UK
Y20-24	2013	34.8	46.1	13.3	10.9	7.6	27.4	8.8	12.3	2.6	20.2	30.2	22.4	18.3	18.6	1.8		13.8
	2017	18.6	31.7	9.1	8.9	9.9	51.4	10.6	12.0	2.0	17.6	28.9	16.0	13.1	17.3	0.6	10.0	8.9
Y30-34	2013	87.5	91.6	86.7	84.7	74.8	69.9	86.2	66.6	42.8	63.9	61.0	68.2	68.1	56.9	51.9		63.9
	2017	85.8	78.9	77.8	77.7	72.9	71.1	67.9	66.4	61.8	59.6	58.0	57.2	56.6	54.7	53.0	52.6	52.1
		LV	IE	ES	PL	KZ	CH	LU	AZ	MK	IS	CY	BE	DE	RO	DK	EE	PT
Y20-24	2013	16.8			32.8	49.0	13.1	3.6	28.6	6.1	14.5		24.9	3.9	8.4	1.6	10.3	3.1
	2017	15.8	3.5	15.3	25.7	14.9	14.7	1.6	22.1	5.6	11.8	9.2	23.9	4.3	4.9	1.3	4.8	3.9
Y30-34	2013	56.6			86.6	83.9	38.9	37.2	75.3	56.0	35.8		64.6	35.3	20.8	17.2	23.4	9.4
	2017	51.5	47.6	47.1	45.5	43.0	41.1	40.8	40.5	43.2	39.3	36.8	34.7	33.1	20.2	17.4	16.1	11.1

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

Notes:

Countries are arranged by the participation of mature students (30-34 years old) in part-time studies in 2017.

As illustrated, the older the students are, the more likely they are to study part-time. Indeed, the share of part-time students in the older age group is more than 1.5 times higher than the younger age group across most countries for which data are available in 2017. In Liechtenstein, the Netherlands, Luxembourg, Ireland and Denmark, the share of part-timers in the older age group is more than ten times higher than among younger students.

Behind the above general pattern, there are substantial differences between countries in the two age groups. In 2017, the share of part-time students in the age group 30-34 varied between 11 % in Portugal to 86 % in Croatia. In 18 countries, part-time students in the older age group represented more than half of the students of the same age group. In four countries, namely Croatia, Ukraine,

Slovakia, Hungary, more than 75 % of students aged 30-34 were part-timers in 2017. Countries with the highest proportion of young part-timers (aged 20-24) were Andorra (51.4 %), Ukraine (31.7 %), Sweden (28.9 %) and Poland (25.7 %).

Figure 4.9 also indicates that part-timers aged 30-34 accounted for over 75 % in 2013 in eight countries (Azerbaijan, Kazakhstan, Hungary, Albania, Poland, Slovakia, Croatia and Ukraine), thus suggesting a significant drop in 2017 in the respective share in Kazakhstan, Poland and Azerbaijan (a reduction of 35 percentage points or more). This was the case in another 19 countries across the EHEA for part-time students aged 30-34. A notable exception was the Netherlands, which recorded an increase in the percentage of part-time students aged 30-34 of 19 percentage points between 2013 and 2017.

Similarly, the pattern between 2013 and 2017 is the same for younger part-timers (aged 20-24); a decreasing trend is recorded in 23 countries. The most pronounced ones were observed in Kazakhstan, Croatia and Ukraine. On the contrary, Malta, Albania, Switzerland, Portugal and Germany had an increase in the share of part-time students in the age group of 20-24, although those did not exceed 2.5 percentage points.

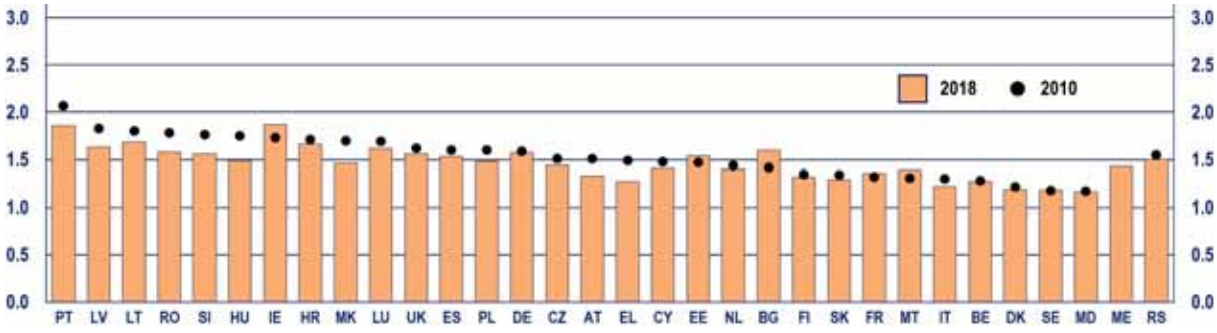
4.2.2. Employability

The issue of graduate employability has been a central concern of the Bologna Process since its inception. Degree structure reforms, the efficacy of quality assurance systems and innovation in learning and teaching, all focus on the value of higher education for the learner. While higher education also has other purposes than providing society with highly skilled workers, the relevance of higher education can be assessed by considering the value attached to higher education qualifications in the labour market. This value is of course dependent on a variety of societal and economic conditions. Nevertheless, it is vitally important that higher education continues to bring benefits to graduates and society in the world of work. This section considers some of the ways in which the value of higher education qualifications can be measured.

One simple measure is to compare the income of higher education graduates with that of employees with different levels of qualifications. This is depicted in Figure 4.10.

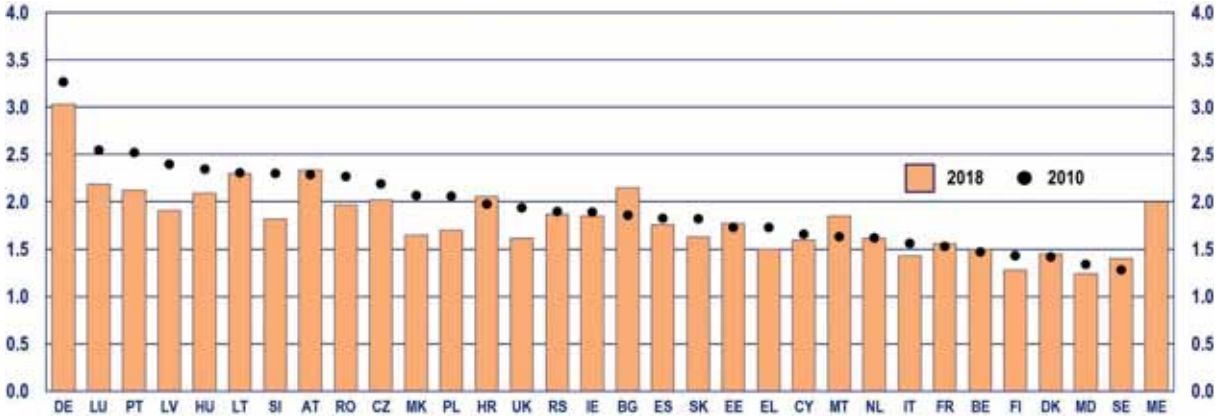
Figure 4.10: Ratio of median annual gross income of employees with tertiary education to the median annual gross income of employees with lower levels of education, 2010 and 2018

A) Tertiary education compared to upper secondary education



	PT	LV	LT	RO	SI	HU	IE	HR	MK	LU	UK	ES	PL	DE	CZ	AT
2010	2.07	1.83	1.80	1.78	1.76	1.75	1.73	1.71	1.70	1.69	1.62	1.60	1.60	1.59	1.51	1.51
2018	1.86	1.63	1.68	1.58	1.56	1.49	1.87	1.66	1.46	1.62	1.56	1.53	1.48	1.57	1.44	1.33
	EL	CY	EE	NL	BG	FI	SK	FR	MT	IT	BE	DK	SE	MD	ME	RS
2010	1.49	1.48	1.47	1.44	1.42	1.35	1.34	1.32	1.31	1.30	1.28	1.22	1.18	1.17	:	1.55
2018	1.27	1.41	1.54	1.40	1.60	1.32	1.29	1.36	1.39	1.22	1.27	1.19	1.18	1.16	1.43	1.50

B) Tertiary education compared to lower secondary education



	DE	LU	PT	LV	HU	LT	SI	AT	RO	CZ	MK	PL	HR	UK	RS	IE
2010	3.27	2.55	2.52	2.40	2.35	2.31	2.30	2.29	2.27	2.19	2.07	2.06	1.98	1.94	1.90	1.89
2018	3.03	2.19	2.12	1.91	2.09	2.30	1.82	2.34	1.97	2.02	1.65	1.70	2.06	1.62	1.87	1.85
	BG	ES	SK	EE	EL	CY	MT	NL	IT	FR	BE	FI	DK	MD	SE	ME
2010	1.86	1.83	1.82	1.73	1.73	1.66	1.63	1.62	1.56	1.53	1.47	1.43	1.42	1.34	1.28	:
2018	2.15	1.76	1.63	1.77	1.50	1.60	1.85	1.62	1.43	1.56	1.50	1.28	1.45	1.24	1.40	2.00

Source: Eurostat, EU-SILC (Statistics on Income and Living conditions).

In 2018, employees with a tertiary degree in every country analysed had an income advantage over people with either upper or lower secondary education. According to Figure 4.10.A, the ratio of income with a tertiary qualification to income with upper secondary education ranges from 2.1 in Portugal – which means that the median annual gross income of tertiary qualified employees is over twice as high as the income of upper secondary qualified employees – and 1.8 in Latvia and Lithuania to 1.2 in Denmark, Sweden, Moldova and Montenegro.

The impact of completing tertiary education instead of only lower secondary schooling on the median annual gross income is stronger in several countries (see Figure 4.10.B). The ratio exceeds 3 in Germany and is 2.2 in Luxembourg. In a number of other countries, the ratio is around two, indicating a high wage premium when gaining a tertiary level degree. The income disparity between the low and the highly educated is lowest in Moldova and Finland. This may be as a result of greater social equality, or potentially as a result of lack of capacity in the labour market to employ highly skilled graduates. In either case, having a higher education degree in these countries does not give as strong monetary benefits as in other countries.

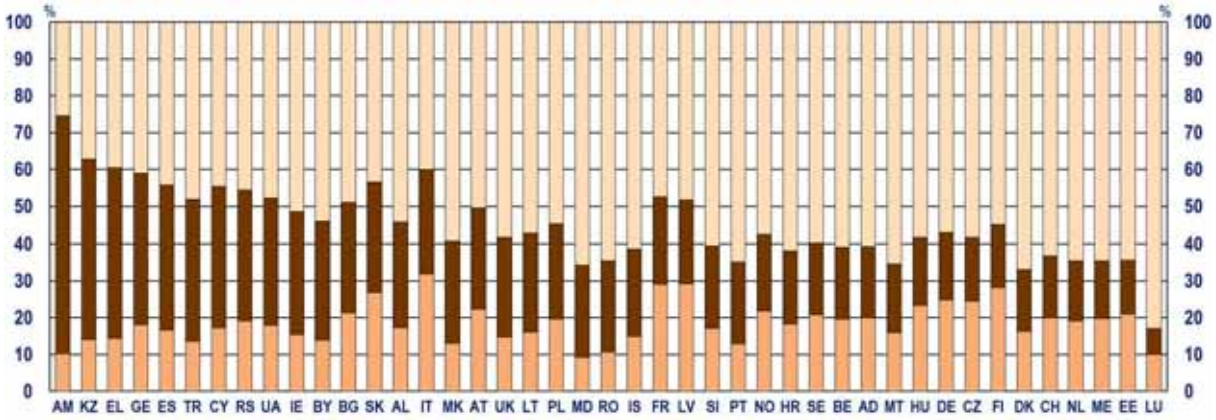
Changes in the median gross annual income since 2010 have been rather stable, with small decreases in income inequality in the majority of countries, when compared to both upper and lower secondary education. Compared to upper secondary education, Hungary experienced the largest decrease (-0.26) between the ratios in the two years, and compared to lower secondary education, the largest decrease took place in Latvia and Slovenia (almost 0.5). The largest increase took place in Bulgaria (0.14 and 0.29 respectively) when comparing to both upper and lower secondary education.

Another indicator of the labour market prospects of graduates is so-called vertical mismatch, which occurs when there is a discrepancy between graduates' level of education or skills and the level of education or skills required by their job (Cedefop, 2010, p. 13). Such vertical mismatch can occur in terms of qualifications or skills, and conclusions can be very different depending on which one is being examined.

Figure 4.11 looks at over-qualification rates – defined as the percentage of young people with tertiary education occupying a post not traditionally regarded as requiring a tertiary qualification (International Standard Classification of Occupations (ISCO) occupation level 4 to 9, including clerks, service workers, agricultural and fishery workers, craft and related trades workers, plant and machine

operators or elementary occupations ([68])). Figure 4.11 shows the distribution of people aged 25-34 with tertiary education qualifications and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and in ISCO 4 to 9.

Figure 4.11: Distribution of people with tertiary education 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, (%), 2018



%	AM	KZ	EL	GE	ES	TR	CY	RS	UA	IE	BY	BG	SK	AL	IT	MK	AT	UK	LT	PL	MD	RO
ISCO 1 or 2	25.5	37.3	39.5	41.0	44.3	48.1	44.6	45.6	47.8	51.4	53.8	49.0	43.4	54.0	40.1	59.1	50.5	58.2	57.0	54.6	65.8	64.7
ISCO 4 to 9	64.3	48.7	46.1	41.0	39.0	38.4	38.1	35.4	34.3	33.2	32.4	29.8	29.8	28.7	27.9	27.8	27.3	27.0	26.9	25.8	25.0	24.6
ISCO 3	10.2	14.1	14.4	18.0	16.6	13.5	17.3	19.0	17.9	15.4	13.9	21.2	26.8	17.3	31.9	13.1	22.2	14.8	16.1	19.6	9.2	10.7
	IS	FR	LV	SI	PT	NO	HR	SE	BE	AD	MT	HU	DE	CZ	FI	DK	CH	NL	ME	EE	LU	EHEA
ISCO 1 or 2	61.5	47.5	48.3	60.6	64.9	57.3	61.9	59.7	61.0	60.7	65.4	58.2	56.8	58.1	54.7	66.9	63.3	64.7	64.5	64.4	82.9	57.7
ISCO 4 to 9	23.7	23.4	22.5	22.3	22.2	20.9	19.9	19.6	19.5	19.3	18.6	18.5	18.3	17.4	17.1	16.9	16.8	16.2	15.7	14.6	7.1	23.6
ISCO 3	14.8	29.1	29.2	17.2	12.9	21.8	18.3	20.7	19.5	19.9	16.0	23.3	24.8	24.5	28.1	16.2	19.9	19.1	19.8	21.0	10.0	18.6

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

In 2018, the median over-qualification rate was 23.6 %.This means that in half of the countries, almost a quarter of young graduates were employed in occupations for which a lower qualification level should be sufficient. The countries with the highest over-qualification rates (above 30 %) are Armenia (64.3 %), Kazakhstan (48.7 %), Greece (46.1 %), Georgia (41.0 %), Spain (39.0 %), Turkey (38.4 %), Cyprus (38.1 %), Serbia (35.4 %), Ukraine (34.3 %), Ireland (33.2 %) and Belarus (32.4 %). In contrast, the countries with relatively low over-qualification rates (below 15 %) are Estonia (14.6 %) and Luxembourg (7 %).

4.3. Qualitative indicators on social dimension

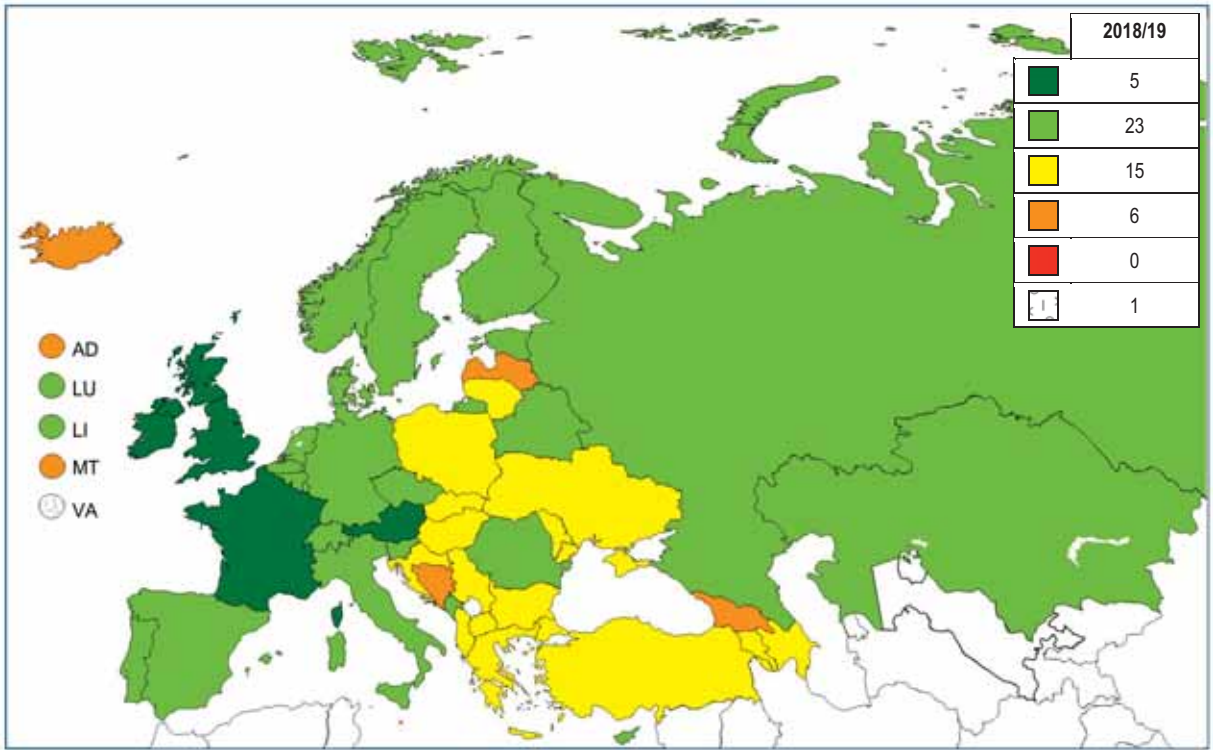
4.3.1. Supporting under-represented groups

The data in section 4.2 illustrate that the EHEA is far from reaching the level of ambition set in policy declarations. Equal access to higher education for students from different backgrounds remains aspirational, and requires holistic social and educational policy-making set at earlier levels of education systems.

Nevertheless, higher education policy has its role to play, and Figure 4.12 sets out to capture the main measures supporting disadvantaged learners in entering higher education. The aspects included are: 1) monitoring the student body at entry, 2) long-term quantitative objectives, 3) support provided through different access routes and 4) financial support. The indicator is in scorecard form and each of the elements carries equal weight and value.

([68]) See the Glossary and Methodological Notes for more details.

Figure 4.12: Scorecard indicator n°9:
Measures to support the access of under-represented groups to higher education 2018/19



Source: BFUG data collection.

Scorecard categories

	The following measures are undertaken to support the access to or increase the participation of under-represented groups in higher education: 1. The composition of the student body is monitored based on gender and at least one other under-represented category at entry. 2. There are longer-term quantitative policy objectives for the access/participation of students from under-represented groups. 3. Under-represented student groups' access to higher education is supported in at least two of the following three ways: ○ Preferential treatment of specific groups of students during the standard admission process; ○ Learners are supported in getting the standard higher education entry qualifications; ○ Learners can access higher education without the standard higher education entry qualifications. 4. There is financial support targeted at under-represented groups of students **OR** mainstream support is provided to more than 50 % of students.
	Three out of the four types of measures are undertaken.
	Two out of the four types of measures are undertaken.
	One out of the four types of measures is undertaken.
	None of the four types of measures are undertaken.
	Data not available

All education systems with available data implement at least one of the measures supporting the access of disadvantaged learners to higher education. Six education systems have undertaken only one out of the four outlined measures: Bosnia and Herzegovina, Malta and Andorra (financial support) and Latvia (monitoring). Most education systems are in the yellow and light green category, implementing two or three types of measures supporting disadvantaged learners. Finally, four countries (Austria, France, Ireland and the United Kingdom) have implemented a wide range of support measures to increase the inclusiveness of their higher education systems, including monitoring, setting quantitative targets, facilitating the access of non-traditional learners through adapting their admission systems as well as providing financial support.

4.3.2. Recognition of prior non-formal and informal learning

The importance of the recognition of knowledge and skills gained through non-formal and informal learning has been stressed by communiqués of ministerial conferences for years. With the Bucharest Communiqué ministers explicitly agreed to 'step up [their] efforts towards under-represented groups to develop the social dimension of higher education, reduce inequalities and provide […] alternative access routes, including recognition of prior learning' (Bucharest Communiqué, 2012, pp. 1-2). The Yerevan Communiqué further stresses that structural reforms – such as providing a framework for the recognition of prior learning – agreed upon earlier should be implemented 'by policy makers and academic communities and [with the] stronger involvement of stakeholders' (Yerevan Communiqué, 2015, p. 3). For countries of the European Union, the recognition of prior learning has been encouraged through a Council Recommendation on the validation of non-formal and informal learning ([69]).

Policies related to the recognition of prior non-formal and informal learning (RPL) in higher education can concern two interlinked areas: 1) RPL for access to higher education studies; 2) RPL for study progression. The first option refers to situations where candidates without upper secondary school leaving certificate enter higher education based on the recognition of their non-formal and/or informal learning. The second option denotes the allocation of credits towards a qualification and/or exemption from some programme requirements.

The recognition of prior non-formal and informal learning as an option for *access to higher education* is currently in place in less than half of all EHEA systems (Bucharest Communiqué, 2012, pp. 1-2). Frameworks for the recognition of prior learning exist primarily in western European countries. In most cases, a recognition procedure is enough for applicants to gain access to (selected) higher education programmes. Nevertheless, such a recognition procedure is not always compulsory for all higher education institutions, but is an option institutions can choose to apply in their admission procedure. Furthermore, in three countries (Austria, Germany and Portugal), the recognition procedure in itself is not enough for applicants to gain access to higher education: they also have to pass an additional entrance examination.

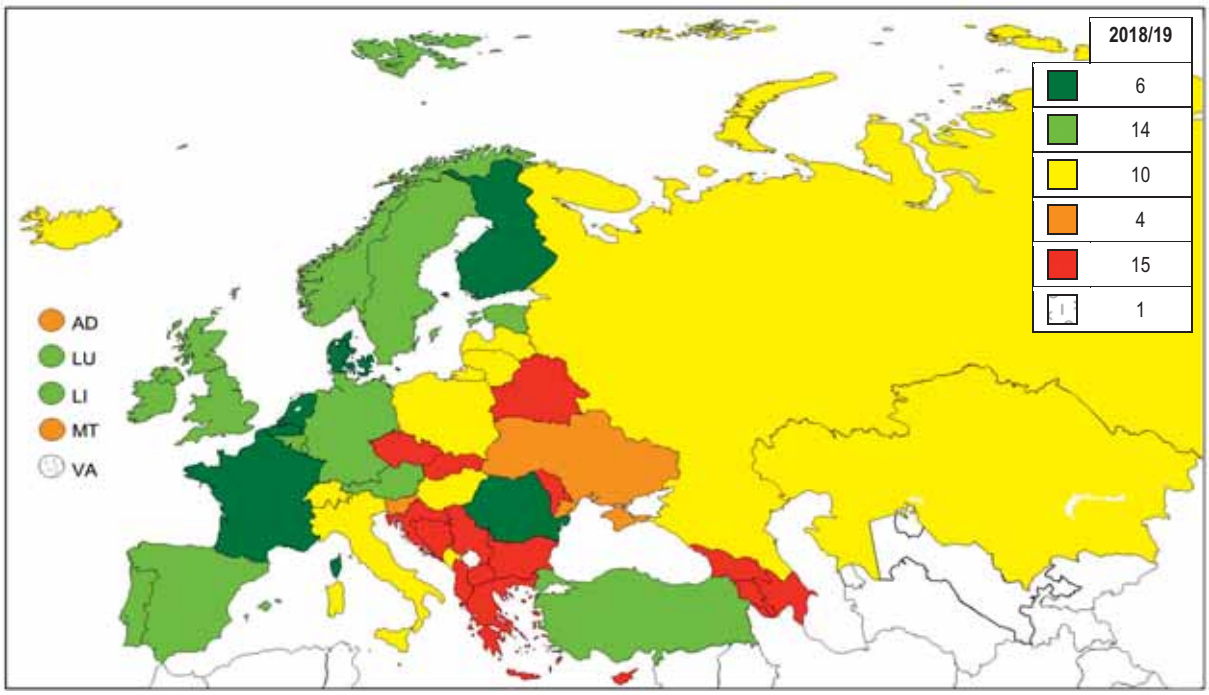
The recognition of prior non-formal and informal learning is not only an important instrument for widening access. If prior non-formal and informal activities are recognised by higher education institutions as parts of study programmes (in the form of credits, for example), these procedures can also help students completing their studies.

At present, around half of all EHEA systems allow the recognition of prior non-formal and informal learning for *study progression in higher education*. In most systems, this is made possible by a top-level framework: laws, regulations, guidelines or policies oblige or guide higher education institutions in establishing the relevant recognition procedures. Nevertheless, such top-level frameworks do not exist everywhere: in five higher education systems (Andorra, Switzerland, Iceland, Malta and Slovenia), higher education institutions have recognition procedures for the allocation of credits in place without the presence of a top-level framework.

Scorecard indicator n°10 (see Figure 4.13) summarises information on the recognition of prior learning for both the access and progression in studies. In addition to examining these two possibilities, the indicators also considers whether national authorities regularly monitor relevant institutional activities.

([69]) Council Recommendation on the validation of non-formal and informal learning, 20 December 2012 (2012/C 398/01). Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF

Figure 4.13: Scorecard indicator n°10:
Recognition of prior non-formal and informal learning, 2018/19



Source: BFUG data collection.

Scorecard categories

	There are nationally established procedures. Guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements. AND these procedures are monitored regularly by top-level authorities.
	There are nationally established procedures. Guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements. BUT these procedures are not monitored regularly by top-level authorities. **OR** There are nationally established procedures. Guidelines or policy EITHER for 1) OR for 2) (see above). AND these procedures are monitored regularly by top-level authorities.
	There are nationally established procedures. Guidelines or policy EITHER for 1) OR for 2) (see above). BUT these procedures are not monitored regularly by top-level authorities.
	There are no specific procedures/national guidelines or policy for assessment of prior learning. but procedures for recognition of prior learning are in operation at some higher education institutions or study programmes.
	No procedures for recognition of prior learning are in place EITHER at the national OR at institutional/programme level.
	Data not available

As the figure depicts, there are only six higher education systems (Belgium – Flemish Community, Denmark, Finland, France, the Netherlands and Romania) in the dark green category, thus fulfilling all the requirements of the scorecard indicator. In these systems, there are nationally established and regularly monitored procedures, guidelines or policy for the assessment and recognition of prior learning as a basis for both accessing higher education programmes and the allocation of credits towards a qualification.

14 higher education systems are in the light green category. In these cases, two possibilities exist. First, there are nationally established procedures, guidelines or policy for the recognition of prior learning as a basis for both accessing higher education programmes and the allocation of credits towards a qualification, but these procedures are not monitored regularly. This is the case in Germany, Norway and Portugal (where the procedures for the recognition of prior learning for progression are not monitored), and the French Community of Belgium, Ireland, Liechtenstein, Luxembourg, Spain,

Sweden and the United Kingdom (with no central level monitoring). Second, there are nationally established and regularly monitored procedures, guidelines or policy for the recognition of prior learning as a basis for either accessing higher education programmes or the allocation of credits towards a qualification, but not for both. This is the case in Austria and Turkey (with a recognition framework only for accessing higher education programmes, and Estonia (with a recognition framework only for progression in studies).

The yellow category comprises education systems where there are nationally established procedures, guidelines or policy for the recognition of prior learning as a basis for either accessing higher education programmes or the allocation of credits towards a qualification, but not for both, and these procedures are not monitored regularly. This is the case in nine education systems (Hungary, Iceland, Italy, Latvia, Lithuania, Montenegro, Poland, Russia and Switzerland).

In the four education systems in the orange category, recognition procedures are in operation in higher education institutions without nationally established procedures. This is the situation in Andorra, Slovenia and Ukraine (for the recognition of prior learning for progression in studies), and in Malta (for the recognition of prior learning for both access and progression in studies).

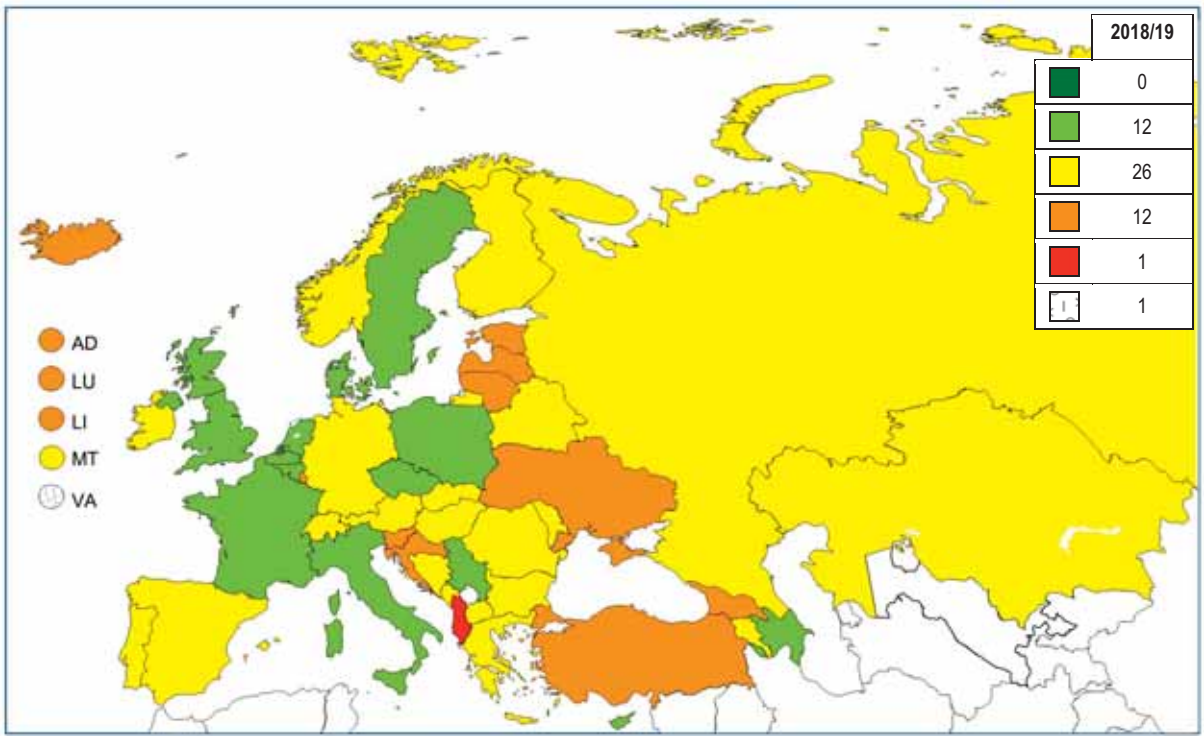
Finally, in 15 education systems, no procedures for the recognition of prior learning are in place either at the national or at institutional/programme level.

To some extent, the map illustrates that recognition of prior non formal and informal learning has been developed more in the countries of Western than Eastern Europe.

4.3.3. Measures to support the retention and completion of students from under-represented groups

Figure 4.14 summarises the measures supporting the retention and completion of disadvantaged learners in the form of a scorecard indicator. This composite indicator includes elements on 1) monitoring the composition of the student body during studies and at graduation, 2) quantitative objectives for the attainment/completion of students from under-represented groups, 3) general measures aiming to improve completion rates, as well as 4) targeted measures aiming to improve the completion of disadvantaged learners specifically.

Figure 4.14: Scorecard indicator n°11:
Measures to support the retention and completion of students from under-represented groups, 2018/19



Source: BFUG data collection.

Scorecard categories

	The following measures are undertaken to support the higher education completion of students from under-represented groups: - Monitoring the composition of the student body based on gender and at least one other under-represented category during studies and at graduation; - Longer-term quantitative policy objectives for the attainment/completion of students from under-represented groups; - Top-level measures targeting the retention of students and/or financial incentives for HEIs to improve completion rates; - Top-level measures targeting the completion of students from under-represented groups specifically.
	Three out of the four types of measures are undertaken.
	Two out of the four types of measures are undertaken
	One out of the four types of measures is undertaken.
	None of the four types of measures are undertaken.

In line with Bologna commitments, most of these elements require a specific focus on vulnerable or under-represented groups. While general policy measures may also enhance the retention or completion of disadvantaged learners (hence their inclusion among the scorecard categories), given the vulnerable position of students from under-represented groups, this indicator aims to capture the presence of targeted policies in EHEA countries.

As the figure illustrates, measures supporting the retention and completion of students from under-represented groups are much less common than measures supporting these groups to enter higher education. There is no education system implementing all types of the listed measures, and only 12 education systems (Azerbaijan, Belgium – Flemish Community, Czechia, Cyprus, Denmark, France, the Netherlands, Poland, Sweden and the education systems of the United Kingdom) undertake three types of support measures out of the four. Most education systems are in the yellow category, thus implementing two support measures targeting the retention or completion of disadvantaged learners. Another 12 education systems implement one type of measure out of the four, therefore are placed in the orange category. Nevertheless, only Albania provides no top-level support for the completion of under-represented groups in any of the areas analysed in this section.

4.4. Conclusions

The social dimension of the Bologna Process has been slow to develop as a policy area. Currently, the main objective as formulated in the London Communiqué (2007) – that the student body entering, participating in and completing higher education should reflect the diversity of the populations – is far from being reached. Even considering the aspirational rather than concrete nature of the objective, the small numbers of countries that have developed and implemented a coherent set of measures to address matters relevant to the social dimension illustrates stuttering progress in this area.

The social dimension objective leaves quite some room for interpretation with respect to the relevant aspects of diversity, as well as the complexity inherent in any yet-to-be-adopted measures. This may play a role in explaining why most countries have apparently not been prioritising the improvement of the social dimension.

The goal formulated by ministers of the Bologna countries in the London Communiqué (2007) has since been upheld throughout several periods of the Bologna Process. Over the past decade, the Eurostudent project, in those countries which implement it, has developed and grown into an invaluable source of data on the social and economic conditions of students, thus providing an evidence base for countries wishing to understand and improved the social dimension of their higher education systems. Findings based on Eurostudent data have also informed the development of social dimension strategies. The social dimension has also garnered interest particularly in a peer learning context. From the beginning, seminars, conferences and peer-learning activities, organised by volunteering countries and stakeholders, have provided valuable opportunities for participants to discuss ideas and learn about the implementation of the social dimension in other countries and institutions.

The data in this report show that monitoring of student characteristics beyond age and gender cannot be considered a common practice in the EHEA. Data on students' background and the social and economic conditions of their studies and lives are not only needed to understand systemic, as well as day-to-day challenges students face, but are crucial in order to set measurable targets for the participation of under-represented and vulnerable groups and to assess the impact of any measures taken.

One of the main goals of social dimension in higher education – widening participation – is still very much work in progress when examining both the statistical data and qualitative indicators. Looking at the statistics, the participation of under-represented groups, especially migrants, remains low across EHEA, and the background of parents is still a very strong predictor whether children decide to attend university. In nearly all countries, women are in the majority among higher education entrants. However, the situation varies significantly depending on the study field. The number of mature students has increased quite significantly since 2000, suggesting that people may be starting higher education later. Also, study times may have become longer in some countries where the employment situation has not completely recovered since the economic crisis.

All Bologna countries should therefore strive to collect and analyse comparable quantitative data on the situation of their student populations, as recommended in the EHEA Social Dimension Strategy, supplemented by qualitative research to better understand the concrete mechanisms at play in determining the individual student's experience and choices. The number of countries participating in the Eurostudent project, although increasing over its roughly twenty year history to generally between 25 and 30, is still far lower than that of all Bologna countries, indicating that gathering data on the social dimension is not a priority issue across the EHEA. Information on the situation of graduates is additionally needed to assess whether higher education is successfully conveying the relevant skills in order for the graduate to benefit from their education and find adequate employment.

The number of students has increased over the last 20 years (see Chapter 1), but the monetary benefit from a degree has decreased slightly in the majority of countries. Hence, more and more people are obtaining a higher education degree, but this does not necessarily bring the same monetary rewards as in previous years. This reality could also be linked to continuing skills mismatches, as a significant proportion of graduates work in jobs that may not require a higher education degree.

When examining the qualitative indicators in this report, more work needs to be done both in developing recognition of prior learning and in providing support for access and completion of under-represented groups.

In the mid-to long-term, in order to fulfil the commitments made in the ministerial communiqués, all EHEA countries should be able to demonstrate a coordinated approach to fostering the social dimension of higher education, ideally in the form of a national social dimension strategy that mainstreams the social dimension and builds on best practice in higher education institutions.

Perhaps the most significant challenge, as it goes beyond the remit of the Bologna Follow-Up Group, will be to establish successful linkages with other areas of policy – particularly developing coherent strategic approaches to equity with previous stages of the education system – in order to fulfil ambitions for the social dimension.

CHAPTER 5: INTERNATIONALISATION

Chapter outline

This chapter addresses the key issues of internationalisation and mobility, which have been part of the Bologna Process from the start. The historical introduction, section 5.1, looks at the evolving discourse and developments concerning the different types of mobility. It discusses the dimensions of attractiveness and balance, issues of recognition, portability of grants and loans, the external dimension and curricular internationalisation as well as neglected aspects of internationalisation in the framework of the Bologna Process that may be relevant to consider in the future. Section 5.2 focuses on the statistical data to complement this picture with the latest data on mobility trends. It provides insights regarding the attractiveness of the EHEA and the balance of incoming and outgoing students in the member countries.

The qualitative data presented in section 5.3 addresses the issue of portability of grants and loans as well as the support of disadvantaged groups for mobility, providing the state of play on action to meet policy commitments.

The 2018 Paris Communiqué

The Paris Communiqué underlines the unique character of the Bologna Process, both its intergovernmental and transnational character. It stresses that in the past 20 years, governments, higher education institutions and other stakeholders have worked together to bring about the key joint objectives of large-scale mobility and mutual trust. Ministers express their ambition to further enhance the cooperation in the areas of higher education, research and innovation, for the very purpose of 'increased mobility of staff, students and researchers' (p. 4). They consider automatic recognition of comparable higher education qualifications a key factor to 'fully develop mobility and recognition across the EHEA' (p. 2). The Communiqué also mandated this report on the past 20 years in order to '(assess) the main developments in the EHEA since the Bologna Process began, including to what extent we have fulfilled the mobility target agreed in Leuven/Louvain-la-Neuve in 2009' (p. 4).

Key messages

- The Bologna Process itself has been both a manifestation and a catalyst for internationalisation.
- Although EHEA countries have fallen short of the 20 % target for graduates experiencing international mobility during their studies, absolute numbers of mobile students have grown significantly throughout the Bologna Process.
- Only four EHEA members have put in place long-term quantitative policy objectives related to mobility of disadvantaged students. Social inclusion should therefore receive greater priority in future policy planning of learning mobility.

5.1. History of progress and challenges in internationalisation

5.1.1. Introduction

This section deals with internationalisation in the Bologna Process. Internationalisation in general and mobility in particular (of students and, to a lesser extent, of staff) existed already before the Bologna Process and was thus not new. Nevertheless, it received a major boost from the decision to create the EHEA. Historically, in the Bologna Process as well as in the general discourse on internationalisation, mobility was the main focus. Or, to be precise, mobility plus mobility-related issues, such as the recognition of credits and degrees, scholarships for study abroad or state grants and loans and their 'portability'. In parallel with a widened concept of internationalisation in the public discourse, the themes, issues and activities also grew in the Bologna Process. Curricular internationalisation is one example, 'internationalisation at home' (providing non-mobile students with internationally relevant knowledge and experience), international/global marketing or cross-border provision of higher education are others. Not all of these new internationalisation dimensions found their way into the Bologna Process equally forcefully. However, by and large, the discourse on internationalisation inside the Bologna Process developed roughly in parallel with the general debate on, and practice in, internationalisation outside of it.

While researchers and practitioners alike agree that the concept of internationalisation has widened considerably over the last 20 or even 30 years, there is no full consensus on what the phenomenon includes and excludes. There is no shortage of definitions. Yet as a result of the attempt to adapt to an ever-increasing number of issues, themes and activities regarded as part of internationalisation, they are very general and thus offer little practical guidance. On top of this, some often quoted definitions are self-referential, i.e. they presuppose a consensus on the meaning of the term international.

The opaqueness of the term internationalisation is important for this text, which aims to assess the achievements and shortcomings of the Bologna Process in the area of internationalisation. Attempting to identify the – many – achievements and the – few – challenges raises a methodological problem. Against which exact understanding of internationalisation would achievement be measured?

This historical overview is divided into four subsections. Section 5.1.2 is devoted to (physical) mobility as well as to mobility-related aspects, including recognition challenges and funding instruments for mobility. Section 5.1.3 deals with the 'external' dimension of the Bologna Process (later referred to as the 'Bologna Process in a Global Setting'), and to curricular internationalisation. Section 5.1.4 considers some aspects of internationalisation which have received little or no policy attention within the Bologna Process.

5.1.2. Mobility

The two-cycle system and evolving discourse around mobility

Supporting the international mobility of students (and staff) has been not only the most often recurring theme in the discourse around structural reforms brought about by the Bologna Process, but also the very rationale of this supranational initiative – or at least the officially-stated one. The introduction of the new (for most European countries) architecture of study programmes and degrees – the Bachelor, Master and (later in 2003) PhD structure – was presented as creating a European area of higher education with 'easily readable and comparable degrees' that would help increase 'the international competitiveness of the European system of higher education' and allow it to acquire a 'world-wide

degree of attraction' (Bologna Declaration, 1999). The ambition was for member countries to become able to attract more foreign students externally, from beyond the European Higher Education Area (EHEA), while the EHEA itself would also be "a key way to promote citizens' mobility" internally, as stated in the founding declaration.

While it would seem reasonable to expect that increased structural similarity of study programmes and degrees would boost mobility, it is noteworthy that dissimilarity was not previously mentioned as a key mobility obstacle in the mainstream literature, whether for credit or degree mobility. For example, evaluation studies on ERASMUS-mobile students, conducted already in 1997, showed that in the eyes of credit-mobile students other concerns primarily affected participation in mobility. These were financial barriers, low organisational support and insufficient language proficiency (Teichler, U., 2019), as evidenced also in the series of Eurostudent surveys that have run throughout the Bologna Process.

With the related literature not pointing to structural differences as a key mobility obstacle, it is hard to say with certainty how the idea originated that common degree structures would stimulate mobility. But towards the end of the 1990s, the 'two-cycle system' was shared by most countries outside of Europe, hence the potential conclusion that adopting a similar system across Europe could, if not boost mobility, at least ease access to full-degree studies for students coming from these countries. Additionally, one particular country in Europe – the United Kingdom (UK) – might have served as inspiration. The UK already had the two-cycle system fully in place and was also the biggest receiver of incoming foreign students in Europe, and in the top three in the world – thus a good European example of a two-cycle higher education system that was very attractive for internationally-mobile students.

Throughout the now over twenty years since the inception of the Bologna Process, student (and staff) mobility have remained an omnipresent theme in the core documents – the Ministerial Communiqués – accompanied by a large array of supportive measures, attempts for coordinated action, and serviced by dedicated working groups operating under various denominations. Ministerial communiqués regularly reconfirmed the centrality of student mobility for the EHEA. It was reaffirmed as 'of utmost importance' (Prague, 2001), as 'the basis to establish EHEA' (Berlin, 2003), as one of the key objectives (Bergen, 2005), as a core element, along graduate mobility (London, 2007), as 'the hallmark of EHEA' (Leuven/Louvain-la-Neuve, 2009), as one of three key objectives (Bucharest, 2012) and as a central one (EHEA Mobility Strategy, 2012). Most recently, the Bologna Process is perceived as having 'paved the way for large-scale student mobility' (Paris, 2018).

An entire host of policy documents and regular reports deal with mobility-related matters in the EHEA context: from the Ministerial communiqués, to dedicated working groups and ensuing monitoring processes leading to stocktaking, and later implementation reports, to analyses produced by stakeholder organisations, e.g. the 'Trends Reports' by EUA, ESU's Bologna With Student Eyes series, the Eurostudent publications, and commissioned evaluation studies. Beyond emphasising the promotion of student (and staff) mobility as such, they tackled a broad array of mobility-related elements, including support and monitoring of:

- The removal of remaining mobility obstacles (from 1998, in the Sorbonne Declaration, onwards), of which two – recognition challenges and financial barriers – received special attention;
- The development of integrated study programmes (since 1999), mobility windows (2009), and joint programmes (mentioned in 1998, and encouraged since 2001), as well as the related European Approach for Quality Assurance of Joint Programmes (adopted in 2015);
- Improving recognition through the use of ECTS, Diploma Supplement, ratification and implementation of the Lisbon Recognition Convention (since 1998 as well, with regular occurrence and emphasis) and later, 'automatic recognition' (2012, 2015 and 2019);

- The social dimension of mobility (since 2001);
- Efforts for increased portability of national student grants and loans systems (since 2003);
- Mobility and/or internationalisation strategies (from 2012 onwards);
- Inclusion-related aspects in mobility: promoting the mobility of teacher education students (2015), of students from conflict areas (2015) and of refugee students (2019).

While it can be argued that at specific times in the history of EHEA other themes (although often related to student and staff mobility) have been more in the limelight – e.g. the social dimension, quality assurance, and most recently, innovation in learning and teaching, etc. – student (and staff) mobility have constantly remained amongst the main objectives. Within the EHEA, mobility received the highest level of policy prioritisation in 2009, with the setting of the Leuven/Louvain-la-Neuve mobility target of having 20 % of EHEA graduates by 2020 with an international mobility experience, and then in 2012, with the launch of the Mobility for Better Learning strategy. This mobility strategy for the 2020 European Higher Education Area (EHEA) lists ten categories of measures to be taken at institutional, national and European level to reach the 20 % by 2020 target.

Comparing the discourse around mobility and related elements within the EHEA with that in the wider field of international higher education, as well as with policy developments within the European Union (EU) framework, it is clear that the debates do, in broad terms, mirror each other. The emerging foci – portability, mobility strategies, targets, automatic recognition, wider inclusion – (re)surface more or less around the same times in the different fora. In general, it remains difficult to trace back the true origin of each of these new ambitions and ideas, with the same policy actors being active in parallel in these multiple, yet interconnected, arenas.

There is nevertheless one notable exception in this discourse parallelism. At the EHEA policy level, student mobility has continued to be seen as a largely positive phenomenon (even at times when more balance in mobility flows was promoted) and has received continuous, unconditional support throughout the process's history. This happened despite the fact that in a number of member countries the value of mobility and of internationalisation of higher education more broadly have been repeatedly called into question in recent years, if not contested altogether by society at large.

A number of common discourses and reasons for opposing mobility and internationalisation have occurred with high frequency in national level discussions at different stages of the Bologna Process. There has sometimes been concern that national citizens would potentially be subsidising the costs of educating foreign nationals. Related to this is a perceived link between foreign students and higher immigration. In some countries, there is a fear that higher education institutions may attract 'any' foreign students indiscriminately as opposed to the more desirable 'top talent'.

Partly as a response to this, several countries have introduced tuition fees for non-EU/EEA incoming students – ostensibly as a means to control the 'quality' of international applicants. Particularly in smaller countries, there is concern about the survival of national languages in academia if English-taught programmes are further developed. Language of instruction as a topic has sometimes also been linked to access inequalities, with a concern that domestic students study only in national language programmes and international students in those offered in a widely spoken language – usually English. Finally, there is often a perceived disconnect between internationalisation and local communities, with internationalisation too often having been treated as an end in itself rather than as a tool to deliver on the three core university missions.

Overall, it can be argued that the education ministers (who from the start deliberately placed the Bologna Process outside the EU policy framework, making it an intergovernmental process) have been visibly more positive to mobility-related objectives in the EHEA context than they are in the EU

framework. Nevertheless, in the Bologna Process context, they lack the fully-fledged implementation mechanisms and the EU conditionality. Hence the new focus on taking implementation forward (Paris Communiqué, 2018) with its focus on the implementation of the key commitments of degree structure reforms, quality assurance and recognition.

Types of mobility and mobility target(s)

Going back to the founding documents of the Bologna Process, while student mobility is centrally mentioned from the beginning, the type of mobility – degree or credit – and the direction of mobility – incoming or outgoing – was not immediately apparent. It can be inferred though from the first declarations that the initial central objective, in line with the discourse on increasing attractiveness, was to boost incoming degree mobility. Eventually, however, the three-cycle structure has also facilitated intra-EHEA credit mobility to a large extent.

Degree mobility

In the absence of comprehensive and comparable data on both degree and credit mobility, the number of incoming degree-seeking students was consistently utilised as a proxy for assessing the degree of attractiveness of the EHEA. Although in the early years, member countries systematically stayed away from setting targets, the majority of them (29) did nevertheless, by 2018, set targets for inward degree mobility at national level (Bologna Process Implementation Report 2018).

While inward mobility trends have regularly been monitored, paradoxically, though partly understandably, no system-level assessment of the impact of the three-cycle architecture on incoming degree mobility from non-EHEA countries – i.e. the initial goal – was ever performed. Independent preliminary assessments seem to indicate that the Bologna Process might have increased the popularity of the EHEA as a study destination compared to other host countries and regions in the period 1999-2007, while this impact is likely to have levelled off or to have been much more modest in the subsequent decade (Teichler, 2019). However, fully placing causality for these developments in the Bologna Process is not currently possible. Isolating the potential effects of the Bologna degree architecture and related mobility support measures from those taken in other fora and at other levels would require a yet-to-be-seen degree of methodological innovation. The patchy state of international data collections on student mobility further challenges such a fully-fledged evaluation.

Beyond the objective of making the EHEA more attractive for non-EHEA students, and possibly in line with the initial objectives, what the two-cycle system ultimately achieved for most European countries was opening a new access point for degree-mobile students, both from outside and from within the EHEA – the Master level. As a result of its shorter duration, the Master level was more easily ‘internationalisable’, particularly in European countries without widely-spoken languages, for which opening up to international students meant starting to teach partly or fully in a foreign language (mostly English). Nowadays, the majority of degree-mobile students in the EHEA are studying at Master level.

Credit mobility

In the first decade of the process, intra-EHEA credit mobility was primarily tackled through a wide array of support measures. The year 2009 marked a policy turn, with the setting of the 20 % of EHEA graduates with an international mobility experience by 2020 mobility target, thus putting the focus on outgoing mobility.

The 2012 Mobility Strategy brought much-needed conceptual clarification, namely that the target: a) refers to physical mobility (after some speculation that it could also include online forms) in all three cycles, and that it covers b) periods spent abroad in the context of studies of at least three months or

equivalent to 15 ECTS (with the minimum threshold of 1 ECTS being considered at some point), as well as c) stays that result in a full degree being granted abroad.

The inclusion of outgoing degree mobility, in addition to credit mobility, gave the potential for the value of the three-cycle structure to be demonstrated, and in particular for the first cycle (bachelor) to be properly recognised as a self-standing qualification. The international data collection on degree mobility was also more established, and thus more reliable than for credit mobility. In addition, the 20 % target seemed extremely ambitious for many systems for credit mobility alone; thus the inclusion of degree mobility potentially allowed such systems to be closer to the target. Interestingly though, available data from national-level graduate surveys show that the 20 % target was already surpassed in the early 2000s in several European countries, while most others were at considerably lower levels, of between 2 % and 5 % (Teichler, 2019). The target remains thus largely relevant for the latter group.

It is clear though from this analysis that in 2009, when the target was first set, the mobility realities and trends for both the EHEA as a whole and for individual member countries were not fully known, and neither was the state of development of mobility data collections and their reliability. Although it can be argued that the target-setting process could have benefitted from a more thorough preparatory stage, (by building on the actual mobility situations of EHEA countries), it did nevertheless have important positive consequences. It created new momentum for international student mobility, by repositioning it at the top of the ministerial agenda. And, after the matching EU mobility benchmark was set in 2011, it also gave a significant push to improving the international data collections on mobility in general, and on credit mobility in particular – even if this remains work in progress.

A call for balance in mobility flows

As of 2007, the London Communiqué, the pursuit of more balanced mobility flows became an EHEA objective that has never left the EHEA agenda until the present day. With the 2009 Communiqué, this aim was clearly shaped into an internal objective – balance within the EHEA. The discussion about balance in the EHEA context was a matter of perspective. Several influential member countries belonged to the group of ‘attractive systems’ (i.e. had large flows of incoming degree-seeking students, and comparatively small outflows) (EHEA Implementation Report 2012). Some of these countries experienced very particular types of imbalances – too high inflows of foreign students in medical and paramedical studies, which limited the access of domestic student to these fields of study, and ever-growing numbers of incoming students. Public debate focused on the value of educating foreigners for free or at a low cost from national taxpayers money (e.g. Austria and the French Community of Belgium).

A few interesting observations can be made about the incorporation of this objective in this policy process. First, although balance was initially set as an internal objective, mobility flows between EHEA countries were much more balanced than flows between EHEA and non-EHEA countries (Ferencz, 2015), where the ‘real’ imbalances occurred. The EHEA Mobility Strategy thus adds, in 2012, also the objective of having more balanced mobility with non-EHEA countries. Second, although balance was, and still is, sought in degree mobility, reciprocity is a characteristic of credit mobility, where the funding bodies have, through the amount of scholarships they provide, the financial means to control the flows. As most degree-mobile students are free movers, governments have very little positive means for intervention (apart from the not-so-positive courses of actions such as imposing quotas). Third, although balanced mobility is endorsed as an objective, particular types of imbalances have been not only tolerated, but actually actively pursued by many EHEA and non-EHEA countries.

Generally, most countries have aspired over time to become ‘attractive systems’ in degree mobility (heavily imbalanced towards inflows), rather than to be in the situation experienced by ‘closed’ (low rates of outgoing students, and even lower incoming) or ‘limited’ (high outward mobility, with excess

over incoming) systems. And finally, the feasibility of this objective comes into question, given that correcting imbalances at EHEA level would require concerted action to limit inflows and/or increase outflows of some countries, while simultaneously increasing inflows and/or lowering outflows from others, with few countries likely to have the necessary resources for such actions.

Nowadays, balance is still on the agenda as a policy objective and subject to the monitoring process, but with little likelihood of success in remedying imbalances in degree mobility. Indeed there is very little evidence of member countries taking bilateral or multilateral actions to correct imbalances, as recommended in the EHEA Mobility Strategy (2012), beyond those measures (largely of a financial nature) that were already in place before 2007.

Striving for full recognition

Despite concerted efforts to ensure recognition of comparable degrees and of periods of study/internships done abroad that pre-date the Bologna Process – e.g. the Lisbon Recognition Convention (1997) on the recognition of foreign qualifications and the creation of the ECTS system, initially to support ERASMUS mobility only – recognition remains one of the most resilient barriers to degree and credit mobility (DZHW, 2016). In the EHEA context, official documents made regular reference since 1999 to the ratification and the uniform compliance with the Lisbon Recognition Convention, the use of the Diploma Supplement, including in its revised form adopted in 2019, as well as the convergent implementation of the initial and the revised (2015) ECTS system and user guide (see Chapter 2, sections 2.7 and 2.8).

Trying to push a breakthrough in recognition, the Bucharest Communiqué (2012) asked for the establishment of a pathfinder group of countries to explore how ‘automatic recognition' of comparable degrees could be achieved, a commitment reiterated in the Yerevan Communiqué (2015), striving towards a system where comparable degrees from an EHEA country are automatically recognised in other EHEA countries. To date though, only a few countries have established automatic recognition areas between themselves (see Chapter 3, section 2).

In practice, and particularly in credit mobility, many countries and higher education institutions still struggle with partial recognition, and even in cases where recognition seems to have been fully granted, the mobility period may not always be recognised as a part of the core curriculum, resulting in an extension of studies for the mobile students. One reason for this continuous struggle for recognition could be a lack of perceived academic value in studying abroad. In any case, these barriers to mobility call for enhanced mobility support schemes and better organisational practices both at home and host universities.

State grants and loans

A – if not the – major obstacle to becoming mobile is, particularly in the perception of students, the additional cost of studying in another country. In order to lower the financial hurdles, a number of funding programmes for the particular purpose of studying (or interning) abroad have been created, such as Erasmus+ for EU and programme countries, as well as regionally and nationally funded schemes. Additionally, the ministers for higher education have, from early on in the Bologna Process, set high hopes on making their national loan and grant schemes for students ‘portable’, i.e. usable not only for study at domestic, but also at foreign higher education institutions.

The first mention of the portability of grants and loans can be found in the Berlin Communiqué (2003). In this document, ministers agreed to ‘take the necessary steps to enable the portability of national loans and grants’. From then onwards until today, the issue regularly appears in official EHEA documents. While the issue was and remains of high political importance, it has rarely been the object of empirical research. In the year 2004, CHEPS had published some valuable findings on state grants

and loans, but portability was not a central aspect of the research. This changed with the publication of the ACA study, 'Portable State Grants and Loans' in 2013 that was based on a survey of such funding instruments in 31 countries in Europe (Lam et al., 2013).

First, the study found that in Europe's Nordic region, close to 100 % of all students receive this form of support irrespective of their socio-economic situation (or that of their parents), and the support (grants and loans) is portable in almost 100 % of all cases. For example, almost every Norwegian credit- or degree-mobile student may also benefit from the financial support when studying abroad. Second, in most other countries where they exist, state grants and loans are means-tested or subject to other restrictions (geographical, disciplinary, etc.), with only a small share of the student body entitled to this form of support. The 'pool' of students who could potentially benefit from portability is therefore rather small, too. Third, take-up of the portability option is limited everywhere. The average take-up in the countries that provided data was 3.7 % (degree mobility only). Adding credit mobility, on which data are shaky, the estimated overall take up is about 5 %. To be precise, 5 % of those students entitled to state grants and loans (and not of all students) use them to study abroad. By and large, the findings of this study suggest that the full portability of the existing state grants and loans would only increase the potential for international mobility to a marginal extent.

Similar empirical research post 2013 is lacking, making it difficult to trace developments since then. There are the regular surveys on the portability situation in the EHEA countries (including in this chapter). But these surveys reflect the possibilities and limits for portability, which appear to have improved over the lifetime of the Bologna Process in a few countries. These improvements relate to the possibility of (and restrictions on) portability, not to the actual number of students becoming mobile with the help of these instruments.

5.1.3. Internationalisation

External dimension

Two major motivations led to the Bologna Process. They are related, but not identical. One is to create a single space of higher education in Europe, with similar structural features, transparency tools, etc., in which the mobility of students would be more easily possible than earlier on and in which student mobility would therefore increase considerably. The second motivation relates to the world outside the EHEA ('external motivation'). It was the conviction of the signatories of the Bologna Declaration that the new European system of higher education would exert a world-wide degree of attraction. This would also translate into increased student mobility by degree-mobile students from non-EHEA countries into the EHEA.

In the very first years of the Bologna Process, this 'external dimension' was largely forgotten. The Berlin Communiqué (2003) indirectly picks it up again, by a reference to the famous ambition of the 2000 Lisbon Strategy for Europe to become 'the most competitive and dynamic knowledge-based economy in the world'. But a real next step was only taken at the Bergen Ministerial Meeting (2005). The Bergen Communiqué devoted a whole section to the 'attractiveness of the EHEA and cooperation with other parts of the world' and it announced the setting-up of a BFUG working group to 'elaborate and agree on a strategy for the external dimension'.

The working group developed a document entitled 'European Higher Education Area in a Global Setting'. This Strategy for the External Dimension of the Bologna Process was adopted in London in 2007. Trying to strike a balance between the competition and the cooperation agendas characterising the Bologna Process as a whole, it identified five 'core policy areas', i.e.

- improving information on the EHEA;

- promoting the EHEA in order to enhance its world-wide attractiveness and competitiveness;
- strengthening cooperation based on partnership;
- intensifying policy dialogue with third countries; and
- furthering the recognition of qualifications.

The production of the 'external strategy' benefitted much from the report of one of the working group members, Pavel Zgaga, who demonstrated the high interest in and appreciation for the Bologna reforms all over the world (Zgaga, 2006).

Under changing names, the working group was continued beyond 2007, but it created few new impulses. The only policy area where action followed was the policy dialogue. This was, in part, the reaction to some non-European countries' interest to join the Bologna Process. It was decided not to change the existing membership criterion, i.e. that member countries must be signatory states of the Cultural Convention of the Council of Europe. At the same time, the existing members found that some form of structured cooperation should be created with non-EHEA countries. This way the Bologna Policy Fora were created. These meetings, in which ministers of EHEA countries meet their counterparts from all over the world, are held back-to-back with the ministerial meetings of EHEA member countries. They have been a feature of every ministerial meeting since 2009, involving participants from ministerial, stakeholder and civil society level. They aim to ensure policy dialogue and to strengthen partnership-based cooperation, on the issue of higher education reform in general but also on specific topics such as mobility, recognition or quality assurance ([70]).

The Bologna Policy Fora have regularly taken place alongside the EHEA ministerial conferences. On this global level, it has been difficult to maintain continuous policy dialogue and related action between the ministerial conferences. As a follow-up to the Bologna Policy Forum in 2018, the Global Policy Dialogue Coordination Group was set up. Its aim was to establish more constant and regular dialogue between the parties involved ([71]).

The fact that the global meetings in the form of the Bologna Policy Forum have taken place every two or three years is the only thing that differentiates them from the four remaining policy areas, which lead their lives largely on paper.

In particular, the competitive elements of the strategy, for example promotion and marketing campaigns in third countries to attract students and young researchers into the EHEA, were not put into practice. While the member countries of the EHEA did, to varying degrees, market their higher education institutions globally and while many universities and colleges marketed themselves on a global scale, there was no major marketing activity at EHEA level. The EU funded some modest projects with a regional or global marketing angle, such as the Global Promotion Project (2006-2009), the European Higher Education Fairs (EHEFs) in the Asia Link Programme (2002-2010) and two 'Study in Europe campaigns' (2015-2017; 2018-2020), but the latter are initiatives with small budgets which are even decreasing over time. Importantly, they provide funds only for higher education institutions and stakeholders from the EU, and not from the entire EHEA.

The relative neglect of the 'competitive' side of the strategy was most likely not simply the result of an oversight. Re-reading the documents on the global dimension of the Bologna Process, there seemed to be a widespread expectation that structural innovations of the Bologna Process (three-cycle degree architecture, ECTS, quality assurance, etc.) would automatically render European higher education

([70]) The European Higher Education Area (EHEA) in a global context: Report on overall developments at European, national and institutional levels, Approved by BFUG at its meeting in Prague, 12-13 February 2009, p. 12.

([71]) Statement of the fifth Bologna Policy Forum, Paris, 25 May 2018, p. 2.

competitive and attractive to potentially mobile third-country students, and that there was thus no need to call for additional 'interventionist' measures, such as marketing and promotion.

The Bucharest Communiqué (2012) requested an evaluation of the global strategy, to be delivered by the time of the Yerevan Ministerial Meeting. In fact, no proper evaluation was carried out. The report of the 2012-2015 BFUG Working Group on Mobility and Internationalisation did, however, look into possible follow-up measures. It discouraged the setting of an EHEA-wide target for inward mobility from non-EHEA countries on the grounds that the cultures and structures of the higher education systems in the individual EHEA countries were too different, but it encouraged the setting of national targets instead.

These developments reflect the reality that cooperation and exchange stand at the core of the objectives and purposes of higher education. Individual countries and higher education institutions cooperate actively and naturally beyond the EHEA on joint projects in research and teaching, and indeed such work has been continually intensifying as inter-connection has been facilitated by improvements in communications technology. Approaching issues in a global policy framework involving the EHEA and other world regions has so far proved to be much more challenging.

Curricular internationalisation

The internationalisation of curricula is only at a first glance a matter different from that of the international mobility of students. The different forms of internationalised curricula that have been considered within the Bologna Process are integrated study programmes, double and multiple degree programmes, and joint degree programmes (sometimes leading to a joint degree when legally possible). Structurally, all three types are the same, although many see reputational differences, with the joint programme and degree held up as the gold standard, the double or multiple degree as the silver and the integrated study programme as the bronze. The motive for the introduction of all three variants is clearly to facilitate mobility by structurally 'embedding' it in the curriculum in such a way that recognition issues are very unlikely to arise.

Integrated study abroad phases, double degrees and joint programmes all entail border-crossing mobility and enhance internationalisation. Even programmes taught in a language other than that of the country where the university is located tend to attract mainly international students. There are, however, also examples of outward-looking international curricula that are developed for national students.

It is worth noting that the internationalisation of curricula in European higher education set in long before the Bologna Process. The earliest double degree programmes in Europe were started in the late 1970s, probably as off-springs of the pre-Erasmus scheme Joint Study Programmes (1976-1984). The achievement of the Bologna Process is to have added to the emanations of curricular internationalisation existing before 1999 – the programmes including a recognised period studied in a partner university as well as the double degree – the joint degree, as well as to have strongly pushed for the introduction of curricula with 'embedded mobility' or 'mobility windows'. The joint degrees were, of course, introduced through the Erasmus Mundus Programme, but the support from the signatory states of the Bologna Declaration 'knighted' this curricular construction.

It is also worthwhile to look at the different rationales behind double, multiple and joint degrees. The integrated study programmes and double degrees had originally (i.e. in the 1970s, 1980s and 1990s) been developed in order to open up other countries' labour markets for graduates. At the time, there was not much hope that an Italian employer would hire a Danish student with a Danish degree. For this to happen, the graduate needed an Italian degree. With the harmonised Bologna degree structure, such worries could have been expected to fade away and with them, the need for double degrees.

However, we are not witnessing a weakening of the appeal of these types of programme. This can perhaps be explained by legal and administrative obstacles in the way of joint degrees in many EHEA countries. According to estimates provided in the Bologna Process Implementation Report of 2018, across the EHEA only about 5 % of higher education institutions award joint degrees. (Eurydice/EACEA 2018). Nevertheless, one of the difficulties to report in this area is that there is no comprehensive source of information on joint programmes. The best available information is from the U-Multirank tool that contains information from 2019 on 12 500 joint study programmes across 24 subject areas. However, there is no information on numbers of students enrolled in these programmes. Hence the finding of the Trends V Report (2007) that student numbers in joint and double degrees are small and that it is 'unlikely that joint programmes will be able to deliver the significant increase in international mobility that was perhaps expected by the Bologna reforms' (European University Association, 2007, p. 34) appears to be still valid today. Nevertheless more recent reports recognise that 'joint degrees (…) have become established formats for European and international exchange and collaboration and have given a competitive advantage to Europe and European higher education institutions' (European University Association, 2015).

That student numbers in programmes with embedded mobility are modest is also the result of an ACA study on 'mobility windows' of 2013. The authors conclude their study by the observation that 'the centrality of mobility windows in the European policy discourse stands in stark contrast to the numerical (in)significance of these forms of curricula-embedded international mobility'.

These remarks are not to be misunderstood as a criticism of the aforementioned forms of embedded mobility. They are welcome facilitators of mobility, even if the numbers of mobile students might not be high. One could even argue that in the case of the joint programme and the Erasmus Mundus Programme that developed it, the aim had never been numbers. Erasmus Mundus had been designed as a selective programme, which would fund the 'best students' only. In this sense, such programmes have acted as pioneers and catalysts to stimulate more widespread mobility and internationalisation, As Sursock has written in Trends 2015, joint programmes 'have become established formats for European and international exchange and collaboration and have given a competitive advantage to Europe and European higher education institutions' (Sursock, 2015, p. 48).

Dimensions of internationalisation not in the spotlight of the Bologna Process

The ultima ratio of the Bologna Process is the – quantitative and qualitative – enhancement of student mobility inside of, and into the EHEA. If only for this reason, it is relevant to take account not only of the internationalisation issues that the Bologna Process has picked up, but those which it has not.

The 'abstentious' attitude of the Bologna Process with regard to global marketing and promotion, in order to generate more (quality) student mobility from non-EHEA countries into the EHEA, has already been highlighted. Beyond this, three other issues have been widely discussed in internationalisation circles during part or all of the lifetime of the EHEA, but are little reflected in Bologna Process documents. These issues are 'internationalisation at home' (IaH), English-medium tuition (EMI), and transnational education (TNE).

IaH can be understood as integrating international and intercultural dimensions into the curriculum and experience for all students. It focuses on ways in which all students, and not simply those who study abroad, can benefit from internationalization, experiencing an international learning and teaching environment without necessarily studying abroad (Crowther et al., 2001). Strategies, which have been under development in many higher education institutions (64 % according to EUA's Trends 2015 report), typically consider internationalisation within curricula, involvement of all staff and students, and language. The 'European Universities' transnational alliances provide a new vehicle for this form of internationalisation to develop in the future.

None of the ministerial communiqués mention EMI. Nevertheless, the lifetime of the Bologna Process has seen a huge rise in the number of English-taught programmes offered by higher education institutions in EHEA countries where English is not one of the native languages. Three ACA studies published in 2002, 2007 and 2014 document the enormous rise in the offer of such programmes during the initial one and a half decades of the Bologna Process. While the first publication identified 727 programmes, the third counted close to 8 100. This rise is mirrored by the share of the number of EMI programmes of all programmes and, to a lesser extent, by the number of students enrolled in such programmes.

EMI is often regarded as a linguistic issue, since the language of instruction is different from the language(s) of the country where the programmes are offered. However, it is in essence a very pragmatic approach of countries with rarely spoken – and often 'small' – languages, which cannot hope to attract sizeable numbers of international students to their higher education institutions. Therefore – and not because it would be a superior medium of academic expression – these countries and many of their higher education institutions have opted for English as the language of instruction. This is warranted by the fact that the leading countries in the provision of EMI in Europe (in relative terms) are small states with not widely used languages.

Another issue which the key Bologna documents do not (adequately) reflect is transnational education (TNE), also known as cross-border provision. TNE is sometimes described as the 'mobility of higher education institutions'. The best-known emanations of TNE are branch campuses of a university abroad. It is true that this type of education is not of the same importance in the internationalisation discourses of all EHEA countries. Still, it is very high on the agenda of some higher education systems, such as the British. The phenomenon is only mentioned three times in the major Bologna documents: The Prague Communiqué (2001) calls for cooperation between Bologna signatory countries to 'address the challenge' of TNE. The Bergen Communiqué (2005) asks for TNE to be governed by the European Standards and Guidelines, and the Leuven/Louvain-la-Neuve Communiqué (2009) makes reference to the UNESCO/OECD Guidelines for quality provision in cross-border higher education.

5.2. Statistical data

Assessing student mobility flows

This section provides data and analysis on student mobility flows, building on indicators previously published in the 2018 Bologna Process Implementation Report. Specific terms are used to describe the different forms of student mobility. Firstly, **degree mobility**, the long-term form of mobility, is the physical crossing of a national border to enrol in a tertiary level degree programme in the country of destination. **Credit mobility** is defined as temporary tertiary education and/or a study-related traineeship abroad within the framework of enrolment in a tertiary education programme at a 'home institution' for the purpose of gaining academic credits (i.e. credits that will be recognised at the home institution). The minimum length of stay should be at least three months in a row, or alternatively 15 ECTS credits.

There is also a distinction to be drawn regarding the direction of mobility flows. **Inward mobility** takes the perspective of the country of destination – the country to which the student moves to study. The inward mobility rate may be considered as an indicator of the country's attractiveness, relative to the size of its tertiary education system. **Outward mobility** takes the perspective of the country of origin – the country from which the student moves. While for many students this will be identical to the country of the student's nationality, it is more accurate to consider the country of permanent/prior residence or

prior education for data collection purposes. The outward mobility rate may be considered as an indicator of a pro-active policy for students to acquire international experience (particularly for credit mobility). However, it may also be an indicator of possible insufficiencies in the education system of the country of origin (particularly for degree mobility).

Before 2013, the UNESCO OECD Eurostat (UOE) joint 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. 15 countries in the EHEA still use the foreign citizenship/nationality as criteria to define mobile students.

The main problem with using citizenship in this way is that it conflates genuine mobile students with those who may have moved to the destination country earlier, for example during school education. As a result, the indicator 'citizenship' provides an estimation of the foreign student population rather than providing an indication of inward learning mobility.

The first comprehensive data on credit mobility were made available in 2018 and provide information on the academic years 2015/16 and 2016/17 ([72]). The data on the degree mobility component were progressively made available from 2015 onwards starting from academic years 2012/13. Therefore, data on both degree and credit outward mobility are finally available from 2016, although with limitations due to incomplete data coverage.

This section looks at three aspects of student mobility flows: Outward mobility, inward mobility and mobility balance. The report presents the total rates, and then takes a closer look at the differences in levels of student mobility between degree and credit mobility in the different cycles of higher education. Throughout the analysis, degree and/or credit mobility flows from abroad to the EHEA and degree mobility flows within the EHEA are examined separately.

Information on inward mobility from countries outside the EHEA includes data from all countries. For the outward mobility towards countries outside the EHEA, only Australia, Brazil, Canada, Chile, Colombia, Japan, New Zealand and the United States have been included due to issues with data availability and quality. For the EHEA country coverage, see the Glossary and Methodological Notes.

5.2.1. Outward mobility

When it comes to absolute numbers of (outward) mobility, the data show that a total of 6.3 million graduates had an international mobility experience in 2017, either in the framework of a study period abroad (credit mobility) or in the form of a full degree. This section of the report will look more closely at outward mobility by breaking this number down into mobility rates and percentages of total student populations and looking at the type and level of mobility as agreed with the EHEA mobility target in 2009, at the Leuven/Louvain-la-Neuve ministerial conference. Here, ministers agreed on the target that at least 20 % of those graduating in the EHEA should have had a period of higher education-related study or training period abroad by 2020 ([73]).

The 2012 Mobility Strategy specified this mobility target: 'We include in our mobility targets the periods spent abroad corresponding to at least 15 ECTS credit points or three months within any of the three cycles (credit mobility) as well as stays in which a degree is obtained abroad (degree mobility)'.

([72]) European Commission, 2017c. Progress report on a Learning Mobility Benchmark. COM (2017)148 final.

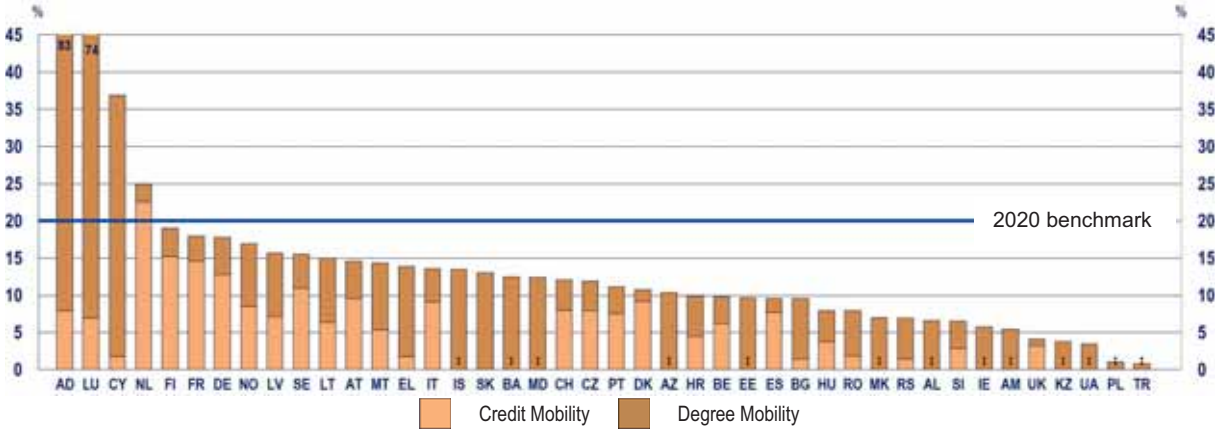
([73]) Leuven/Louvain-la-Neuve Communiqué: The Bologna Process 2020 – The European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009, p. 4.

As a common benchmark, this target set focuses only on outward mobility, and takes into account the total number of graduates in the EHEA.

The degree and credit outward mobility rate of a country for tertiary graduates shows the number of students who graduated abroad or spent a study-related period abroad, as a percentage of the total number of graduates from that country (i.e. the total number of graduates from the same country of origin). For a given country (of origin), the compilation of outward degree mobile students/graduates relies on the records of all other countries in the world. Indeed, only each hosting country can collect data on students/graduates from this country of origin in its own tertiary education system. Unlike degree mobility data, data on credit mobility are collected at the level of the country of origin, defined in this case as the country where the graduates are regularly enrolled/obtain their diploma (i.e. the country of full registration/graduation is where the institution of full registration – the 'home institution' – is located).

Figure 5.1 presents the outward (degree and credit) mobility rate of graduates who have graduated abroad or have received their tertiary education in another country in 2017, thus highlighting the different incidence of the two mobility components across the EHEA. This is therefore the central figure to measure progress towards the 20 % target set in the Leuven/Louvain-la-Neuve Communiqué.

Figure 5.1: Outward (degree and credit) mobility rate of graduates (ISCED level 5-8) by country of origin, 2016/17, (%)



	AD	LU	CY	NL	FI	FR	DE	NO	LV	SE	LT	AT	MT	EL	IT	IS	SK	BA	MD	CH	CZ	PT
Credit Mobility	8.0	6.9	1.7	22.6	15.2	14.6	12.8	8.5	7.2	10.9	6.4	9.6	5.4	1.7	9.1	:	3.7	:	:	8.0	8.0	7.5
Degree Mobility	83.0	73.6	35.2	2.3	3.8	3.4	5.1	8.5	8.5	4.6	8.6	5.0	9.0	12.1	4.5	13.5	13.0	12.5	12.4	4.1	3.9	3.6
	DK	**AZ**	**HR**	**BE**	**EE**	**ES**	**BG**	**HU**	**RO**	**MK**	**RS**	**AL**	**SI**	**IE**	**AM**	**UK**	**KZ**	**UA**	**PL**	**TR**		**EHEA**
Credit Mobility	9.2	:	4.5	6.2	:	7.7	1.4	3.8	1.8	:	1.4	:	2.8	:	:	3.3	:	:	:	:		5.9
Degree Mobility	1.6	10.4	5.4	3.6	9.6	1.9	8.2	4.1	6.1	7.0	5.5	6.6	3.7	5.7	5.4	0.8	3.8	3.5	1.0	0.8		3.5

EHEA = EHEA weighted average

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

Notes:

Total outward mobility rates for country X are calculated as (outward degree-mobile graduates from country X + outward credit-mobile graduates who were not degree mobile from country X)/graduates originating in country X.

Graduates originating in country X are calculated as (total graduates in country X – inward mobile graduates from any other country to country X + outward mobile graduates from country X to any other country).

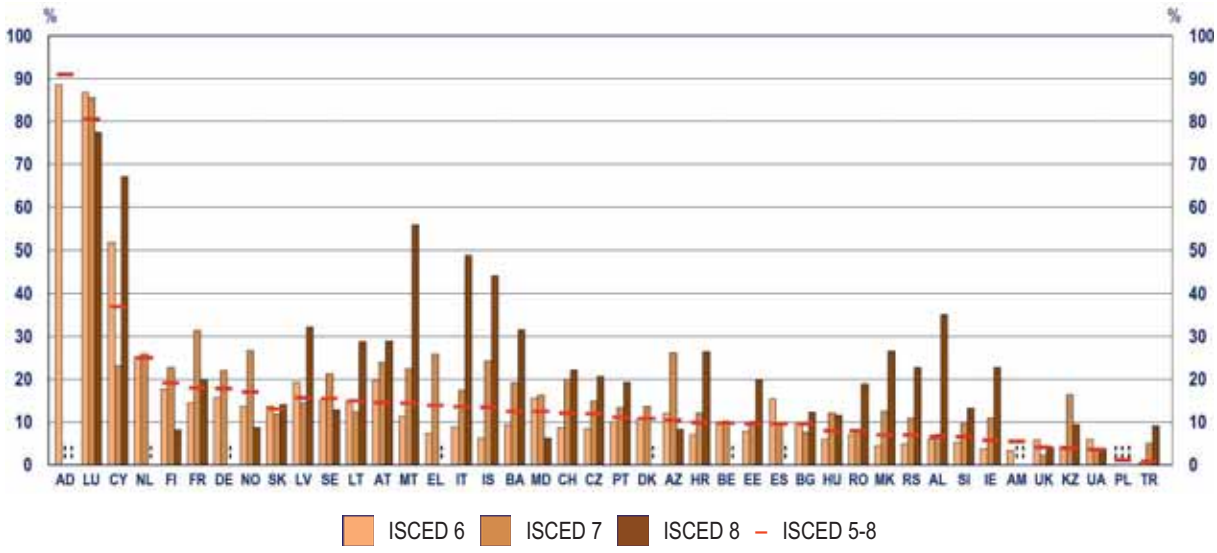
Overall, for countries with available data the total mobility rate stands at 9.4 %. This is a weighted average that is calculated by taking into account the respective total numbers of graduates of the EHEA and those graduates of the EHEA who have been degree mobile in order to derive the average. It thus falls some way short of the ambition set in 2009. 5.9 % of the graduates in tertiary education had a temporary experience abroad (credit mobility) and 3.5 % of them graduated abroad, i.e. in a country different from the one of their country of origin (degree mobility).

Apart from Andorra and Luxembourg, both with very strong mobility flows, Cyprus and the Netherlands surpassed the learning mobility benchmark of 20 % of national graduates. Finland stands very close to the goal with a rate equal to 19 %, while France and Germany reached 18 %. Norway, Latvia, Sweden, Lithuania and Austria follow the first top seven countries with a rate ranging from 17 % to 15 %. A share of less than 10 % was found in 18 countries. The lowest share (less than 5 %) of outgoing students who completed degrees or had a study-related period outside the country of origin was recorded in Kazakhstan, Ukraine, Poland, Turkey and the United Kingdom. However, in these countries, with the exception of the United Kingdom, no data were available for outward credit mobility.

Figure 5.1 also shows that among the best performers, the Netherlands, Finland, France and Germany record a higher percentage of credit mobile graduates than the percentage of degree mobile graduates, which did not exceed 6 % in any of these countries. On the other hand, in Luxembourg and Andorra, there were more degree mobile graduates (73.6 % and 83 %, respectively). The prevalence of degree mobility is particularly evident in Iceland, Greece, Slovakia, Bosnia and Herzegovina, Moldova and Cyprus.

Figure 5.2 shows the outward degree and credit mobility rate of graduates inside and outside the EHEA in 2017 by education level providing the ISCED level 5-8 average and then showing ISCED level 6-8 separately. It is at ISCED levels 6-8 that data collection across EHEA members is most complete and thus most comparable. The figure enables a more differentiated view of the overall mobility reality to emerge.

Figure 5.2: Outward degree and credit mobility of graduates, by country of origin and level of educational attainment, 2016/17, (%)



%	AD	LU	CY	NL	FI	FR	DE	NO	SK	LV	SE	LT	AT	MT	EL	IT	IS	BA	MD	CH	CZ	PT
ISCED 6	88.7	86.8	51.8	25.2	17.6	14.5	15.7	13.6	13.6	19.4	15.1	14.8	19.6	11.3	7.3	8.9	6.2	9.4	15.5	8.7	8.4	10.1
ISCED 7	:	85.5	23.1	25.9	22.7	31.4	22.1	26.8	11.8	14.4	21.3	12.4	24.0	22.4	25.9	17.3	24.3	19.1	16.3	19.9	14.9	13.3
ISCED 8	:	77.5	67.1	:	8.2	19.9	:	8.7	14.1	32.2	12.9	28.7	28.9	55.9	:	48.7	44.1	31.5	6.2	22.2	20.6	19.4
ISCED 5-8	91.0	80.5	36.9	24.9	19.0	18.0	17.8	17.0	13.0	15.7	15.5	15.0	14.6	14.4	13.9	13.6	13.5	12.5	12.4	12.1	11.9	11.1

	DK	AZ	HR	BE	EE	ES	BG	HU	RO	MK	RS	AL	SI	IE	AM	UK	KZ	UA	PL	TR	EHEA
ISCED 6	10.7	12.0	7.0	9.8	7.9	15.5	10.0	5.9	7.1	4.4	4.9	6.0	5.2	3.7	3.4	5.9	4.3	5.9	:	0.5	9.6
ISCED 7	13.7	26.2	12.1	10.2	10.1	9.8	7.6	12.1	7.6	12.6	10.9	7.0	9.7	10.9	:	2.2	16.5	3.6	:	4.9	16.1
ISCED 8	:	8.3	26.4	:	19.9	:	12.3	11.6	18.9	26.6	22.7	35.1	13.2	22.8	:	4.0	9.3	3.8	:	9.1	17.3
ISCED 5-8	10.8	10.4	9.9	9.8	9.6	9.6	9.6	7.9	7.9	7.0	6.9	6.6	6.5	5.7	5.4	4.1	3.8	3.5	1.0	0.8	9.4

EHEA = EHEA weighted average

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

Outward mobility data by education level show that among first-cycle graduates (ISCED level 6), Luxembourg has one of the highest shares of graduates with mobility experience (87 %) together with Andorra (89 %), followed by Cyprus (52 %) and the Netherlands (25 %). Twenty countries had a share of first-cycle mobility below 10 %.

For second-cycle level graduates with mobility experience (ISCED 7), Luxembourg is found again at the top rank (85 %), followed by four countries (the Netherlands, Greece, Norway, France and Azerbaijan) with a share higher than 25 %. Sweden, Germany, Malta, Finland, Cyprus, Iceland and Austria also record relatively high shares (20 % or above) while the United Kingdom, Romania, Bulgaria, Albania, Ukraine and Turkey all have relatively low shares (8 % or lower).

At doctoral level (ISCED level 8), more than 50 % of the students originating from Malta, Cyprus and Luxembourg graduated or had a study-related period abroad. Apart from those three countries, another 12 countries recorded a high percentage of doctoral graduates with degree or credit mobility experience (22 % or higher). Only two countries, the United Kingdom and Ukraine, recorded levels of mobility experience below 5 % at this level.

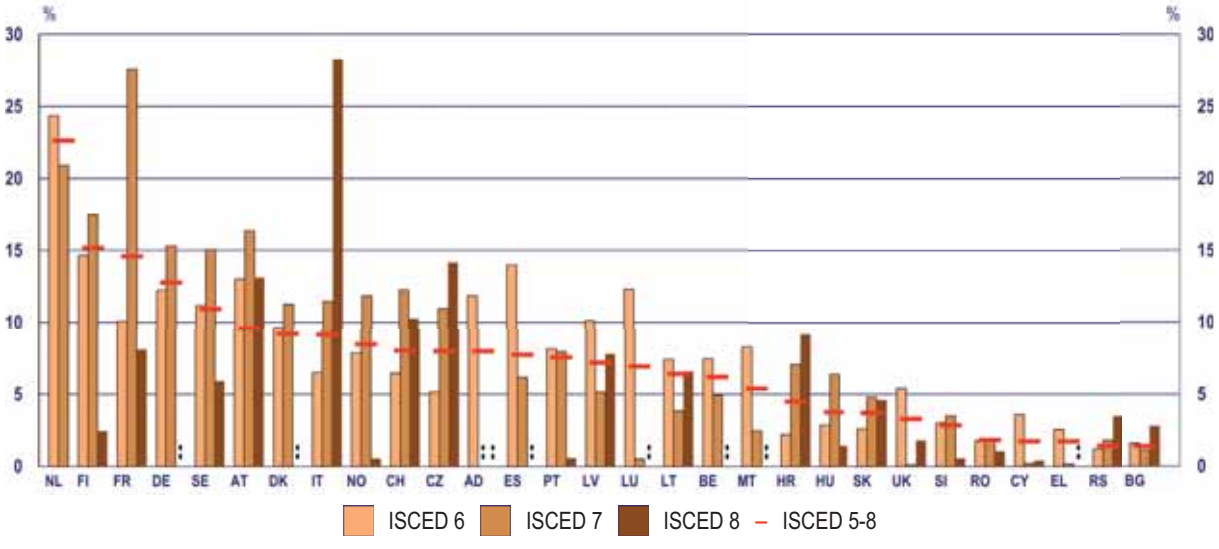
In 16 of the 42 countries analysed for which data for all ISCED levels is available the share of degree and credit outward mobility graduates increased as ISCED levels rose. In 31 of the 42 countries, mobility rates were higher at Master than at Bachelor level. Whereas the difference was minor (less than one percent) in Luxembourg, the Netherlands, Moldova, Belgium and Romania, in 13 countries mobility at ISCED level 6 was more than 50 % lower than at ISCED level 7.

Eight countries (Luxembourg, Cyprus, Slovakia, Latvia, Lithuania, Spain, Bulgaria and Ukraine) displayed the opposite trend – with mobility higher at Bachelor than Master level. The weighted average for degree and credit mobility in the EHEA is 9.6 % for ISCED level 6, 16.1 % for ISCED level 7 and 17.3 % for ISCED level 8.

It is thus noteworthy that if only ISCED level 7 (Master level) and 8 (doctoral level) were considered in relation to the 2020 target for mobility of graduates, the EHEA as a whole would actually be close to the 20 % target.

Figure 5.3 presents the percentages of outward credit mobility of graduates by ISCED level. It looks at credit mobility in particular to show the differences between ISCED levels across countries for this type of mobility. Limited data is available and thus the figure only shows the rates of 29 countries.

Figure 5.3: Outward credit mobility rate – tertiary mobile students from the EHEA studying in the country as a percentage of the total number of students enrolled, by country of destination and level of educational attainment, 2016/17, (%)



Source: Eurostat, OECD.

	NL	FI	FR	DE	SE	AT	DK	IT	NO	CH	CZ	AD	ES	PT	LV	LU	LT	BE	MT	HR	HU	SK	UK	SI	RO	CY	EL	RS	BG	EHEA
ISCED 6	24.4	14.6	10.1	12.2	11.2	13.0	9.6	6.5	7.9	6.5	5.1	11.9	14.0	8.2	10.1	12.3	7.4	7.5	8.3	2.2	2.9	2.6	5.4	3.0	1.8	3.6	2.5	1.2	1.6	6.3
ISCED 7	20.9	17.5	27.6	15.3	15.1	16.4	11.2	11.5	11.9	12.3	10.9	:	6.2	7.9	5.2	0.5	3.8	4.9	2.5	7.0	6.4	4.8	0.1	3.5	1.9	0.2	0.2	1.8	1.1	10.0
ISCED 8	:	2.4	8.1	:	5.9	13.1	:	28.2	0.5	10.3	14.1	:	:	0.6	7.8	:	6.6	:	:	9.1	1.4	4.6	1.8	0.6	1.1	0.4	:	3.5	2.8	4.6
ISCED 5-8	22.6	15.2	14.6	12.8	10.9	9.6	9.2	9.1	8.5	8.0	8.0	8.0	7.7	7.5	7.2	6.9	6.4	6.2	5.4	4.5	3.8	3.7	3.3	2.8	1.8	1.7	1.7	1.4	1.4	5.8

EHEA = EHEA weighted average

Source: Eurostat, OECD.

Notes:

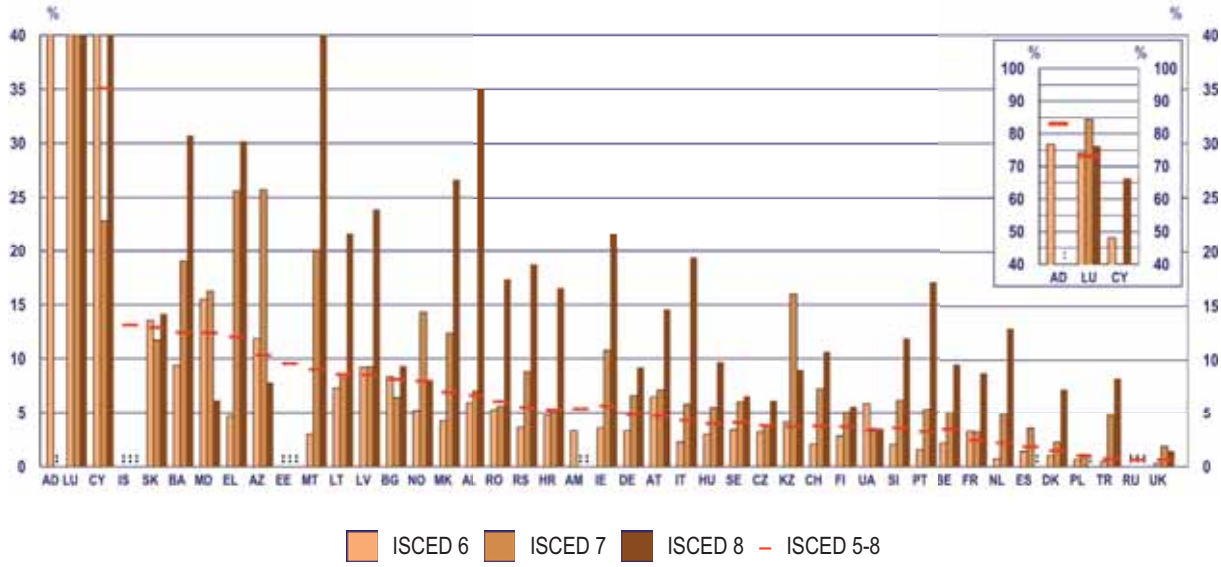
Total outward mobility rates for country X are calculated as (outward degree-mobile graduates from country X + outward credit-mobile graduates who were not degree mobile from country X)/graduates originating in country X. Graduates originating in country X are calculated as (total graduates in country X – inward mobile graduates from any other country to country X + outward mobile graduates from country X to any other country).
Credit and degree mobility are calculated considering only one component at the numerator.

The data show that only the Netherlands has passed the threshold of 20 % for both ISCED level 6 and 7 when it comes to outward credit mobility. The Netherlands also stands as the country where the most significant levels of mobility occur during the first cycle (24.4 %). France has surpassed this mark on ISCED level 7 with a rate of 27.6 %, but in contrast to the Netherlands has a much less significant mobility rate in the first cycle (10.1 %). Generally, the second cycle (ISCED level 7) is where the most significant levels of credit mobility have taken place.

The Netherlands, Finland, France, Germany, Sweden and Austria reach or surpass a rate of 15 % credit mobility in at least one of the ISCED levels, while 15 countries reach or surpass a rate of 10 % credit mobility in at least one ISCED level. In seven countries (Slovakia, Slovenia, Cyprus, Greece, Romania, Bulgaria and Serbia), the rate of credit mobility remains below 5 % for any of the ISCED levels.

Figure 5.4 focuses only on degree outward mobility graduates, i.e. the number of graduates who have received a degree in another EHEA country.

Figure 5.4: Outward degree mobility of graduates within the EHEA, by country of origin and level of educational attainment, 2016/17, (%)



Data (Figure 5.4)

	AD	LU	CY	IS	SK	BA	MD	EL	AZ	EE	MT	LT	LV	BG	NO	MK	AL	RO	RS	HR	AM	IE
ISCED 6	76.8	74.2	48.1	:	13.6	9.4	15.5	4.7	11.9	:	3.0	7.3	9.2	8.4	5.2	4.3	5.9	5.3	3.7	4.8	3.4	3.6
ISCED 7	:	84.4	22.8	:	11.7	19.0	16.3	25.6	25.7	:	20.0	8.5	9.3	6.4	14.3	12.4	7.0	5.6	8.8	5.0	:	10.8
ISCED 8	:	76.3	66.3	:	14.1	30.7	6.2	30.2	7.8	:	55.9	21.7	23.9	9.3	8.0	26.6	35.1	17.4	18.8	16.5	:	21.7
ISCED 5-8	83.0	73.1	35.1	13.1	12.9	12.4	12.4	12.0	10.3	9.5	9.0	8.5	8.5	8.1	7.9	6.9	6.6	6.0	5.5	5.3	5.3	5.6
	DE	**AT**	**IT**	**HU**	**SE**	**CZ**	**KZ**	**CH**	**FI**	**UA**	**SI**	**PT**	**BE**	**FR**	**NL**	**ES**	**DK**	**PL**	**TR**	**RU**	**UK**	**EHEA**
ISCED 6	3.4	6.5	2.3	3.0	3.4	3.3	4.2	2.1	2.9	5.8	2.1	1.6	2.2	3.3	0.8	1.4	1.0	0.7	0.5	:	0.3	3.3
ISCED 7	6.6	7.1	5.8	5.5	6.0	3.9	16.0	7.2	5.0	3.5	6.2	5.3	5.2	3.2	4.8	3.6	2.3	1.1	4.8	:	1.9	6.0
ISCED 8	9.2	14.6	19.4	9.7	6.5	6.1	8.9	10.7	5.5	3.5	11.9	17.1	9.6	8.8	12.9	:	7.3	:	8.3	:	1.4	12.6
ISCED 5-8	4.9	4.7	4.3	4.0	4.1	3.8	3.7	3.8	3.7	3.3	3.6	3.3	3.4	2.4	2.2	1.8	1.5	1.0	0.7	0.6	0.6	3.5

EHEA = EHEA weighted average

Source: Eurostat, OECD.

On average, the share of outward degree mobile graduates within the EHEA was 3.5 % in 2017. The outward degree mobility rate received its highest value in Andorra, (83 %) Luxembourg (73 %) and Cyprus (35 %). Although far from the rates in these three countries, in Iceland, Slovakia, Bosnia and Herzegovina, Moldova, Greece and Azerbaijan 10 % or more students graduated outside their country of origin. In contrast, 2 % or fewer students from Spain, Denmark, Poland, Turkey, Russia and the United Kingdom graduated in other EHEA countries.

In the majority of reporting countries, the share of outgoing degree graduates in bachelor or equivalent programmes (ISCED 6) within the EHEA was below 16 % in 2017. In Andorra, Luxembourg and Cyprus, the degree outward mobility rate was higher than 48 %. Countries at the other end of the spectrum (Portugal, Spain, Denmark, the Netherlands, Poland, Turkey and the United Kingdom) recorded an outward degree mobility rate that did not exceed 2 %.

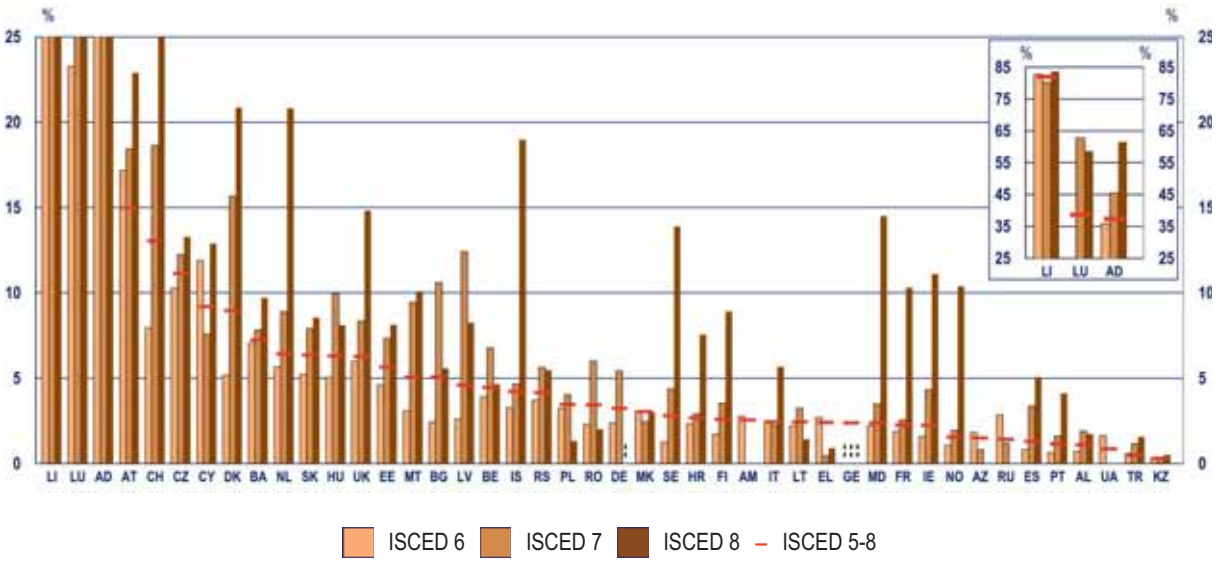
More than a quarter of second-cycle (ISCED 7) graduates from Greece, Azerbaijan and Luxembourg obtained a degree in another country within the EHEA – with the largest percentage of graduates originating from Luxembourg (84.4 %). In Malta, Cyprus, Bosnia and Herzegovina, Moldova, Greece, Azerbaijan and Kazakhstan, this share ranged from 15 % to 26 %. Similar to the case of first-cycle graduates, Denmark, Poland and the United Kingdom recorded the lowest rates (3 % or lower).

At doctoral level (ISCED 8), more than half of the graduates from Cyprus (66 %), Malta (64 %) and Luxembourg (76 %) completed their studies in another EHEA country. The lowest shares were observed in Ukraine as well as the United Kingdom (lower than 5 %).

5.2.2. Inward degree mobility

Figure 5.5 presents the percentage of mobile students coming from inside the EHEA to individual EHEA countries. It compares the share of mobile students with the total student population in the EHEA destination country. The purpose of this indicator is to provide an estimation of the attractiveness of each EHEA country for degree students who originate from another EHEA country. The indicator measures the inward mobility flow from the rest of the EHEA to each EHEA member.

Figure 5.5: Incoming degree mobility rate per level of educational attainment within the EHEA, 2017



	LI	LU	AD	AT	CH	CZ	CY	DK	BA	NL	SK	HU	UK	EE	MT	BG	LV	BE	IS	RS	PL	RO	DE
ISCED 6	82.7	23.3	35.9	17.2	7.9	10.3	11.9	5.2	7.0	5.6	5.2	5.1	6.0	4.6	3.1	2.4	2.6	3.9	3.3	3.7	3.3	2.3	2.4
ISCED 7	80.3	62.8	45.5	18.4	18.6	12.2	7.6	15.6	7.8	8.9	7.9	10.0	8.3	7.3	9.4	10.6	12.4	6.8	4.7	5.6	4.0	6.0	5.4
ISCED 8	83.7	58.7	61.5	22.9	41.3	13.3	12.9	20.8	9.7	20.8	8.5	8.1	14.8	8.1	10.1	5.6	8.2	4.6	19.0	5.5	1.3	2.0	:
ISCED 5-8	82.0	38.7	37.4	15.0	13.0	11.1	9.2	8.9	7.2	6.4	6.3	6.3	6.3	5.6	5.1	5.1	4.6	4.4	4.2	4.1	3.4	3.4	3.2

	MK	SE	HR	FI	AM	IT	LT	EL	GE	MD	FR	IE	NO	AZ	RU	ES	PT	AL	UA	TR	KZ	EHEA
ISCED 6	3.1	1.2	2.3	1.7	2.8	2.5	2.2	2.7	:	2.2	1.9	1.6	1.1	1.8	2.8	0.8	0.6	0.7	1.6	0.6	0.3	2.7
ISCED 7	2.5	4.4	2.9	3.5	0.0	2.3	3.3	0.5	:	3.5	2.6	4.3	1.9	0.8	1.2	3.4	1.6	1.9	0.0	1.2	0.3	4.1
ISCED 8	3.0	13.9	7.6	8.9	0.0	5.7	1.4	0.9	:	14.5	10.3	11.1	10.4	0.0	0.0	5.1	4.1	1.7	0.0	1.6	0.5	8.1
ISCED 5-8	3.0	2.8	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.2	1.5	1.5	1.4	1.3	1.2	1.1	0.8	0.5	0.3	2.6

EHEA = EHEA weighted average

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

Apart from small countries like Liechtenstein, Luxembourg and Andorra, who host very high shares of students from other EHEA countries, Austria, Switzerland and Czechia also show high shares of degree-seeking incoming mobile students (above 10 %). The countries with the lowest share of incoming students from the EHEA are Ukraine, Turkey and Kazakhstan (less than 1 %).

Across ISCED levels, and considering all countries, it can be seen that the number of countries which hosted more than 10 % of mobile students increased with the ISCED level. Indeed, 17 countries attracted more than 10 % of doctorate students, as compared to 10 countries that received second-cycle level students (ISCED 7) at a rate higher than 10 %, and six countries with incoming first-cycle (ISCED 6) degree mobile students at the same rate (Liechtenstein, Luxembourg, Andorra, Austria, Czechia and Cyprus).

Liechtenstein, Andorra and Luxembourg received high numbers of doctoral students (ISCED level 8), with more than 50 % students coming from other EHEA countries. Switzerland also hosted about 41 % of incoming mobile students at ISCED level 8 from the EHEA, followed by Austria, Denmark and the Netherlands (at a rate close to 20 %).

With the exception of the Netherlands, the same countries were at the top rank of second-cycle degree mobile students, with a rate higher than 14 %. At the other extreme, Norway, Albania, Portugal, Turkey, Russia, Azerbaijan, Greece and Kazakhstan received the lowest rate (below 2 %) of degree mobile students at ISCED level 7.

In the majority of countries, the percentage of first-cycle incoming mobile students (ISCED level 6) was lower than 5 %, signifying that students at lower ISCED levels tend to move less frequently to another country for their studies. Liechtenstein, Andorra and Luxembourg are found again among the top, together with Austria, Cyprus and Czechia (10 % or higher). Spain, Portugal, Albania, Turkey and Kazakhstan received the lowest rates of incoming degree mobility, remaining below 1 %.

5.2.3. Mobility balance

The aspiration for more balanced mobility was reinforced in the Bucharest Communiqué and the 2012 Mobility Strategy, in which EHEA ministers asked for more balanced mobility (especially for degree mobility), 'since it has a sustained effect on the host and home countries, can facilitate capacity building and cooperation and may lead to brain gain on the one side and to brain drain on the other' ([74]). That being said, it may be worth pointing out that there is no definition of 'balanced mobility' at European level. The Working Group on Mobility (2009-2012) tried to elaborate an appropriate definition of 'balanced mobility' without reaching a final conclusion. Nevertheless, several main ideas were put forward, such as: 'Even if there are specific imbalances, mobility itself is good and therefore should not be restrained' and 'Only awareness and capacity building in the home countries can sustainably reduce brain drain'.

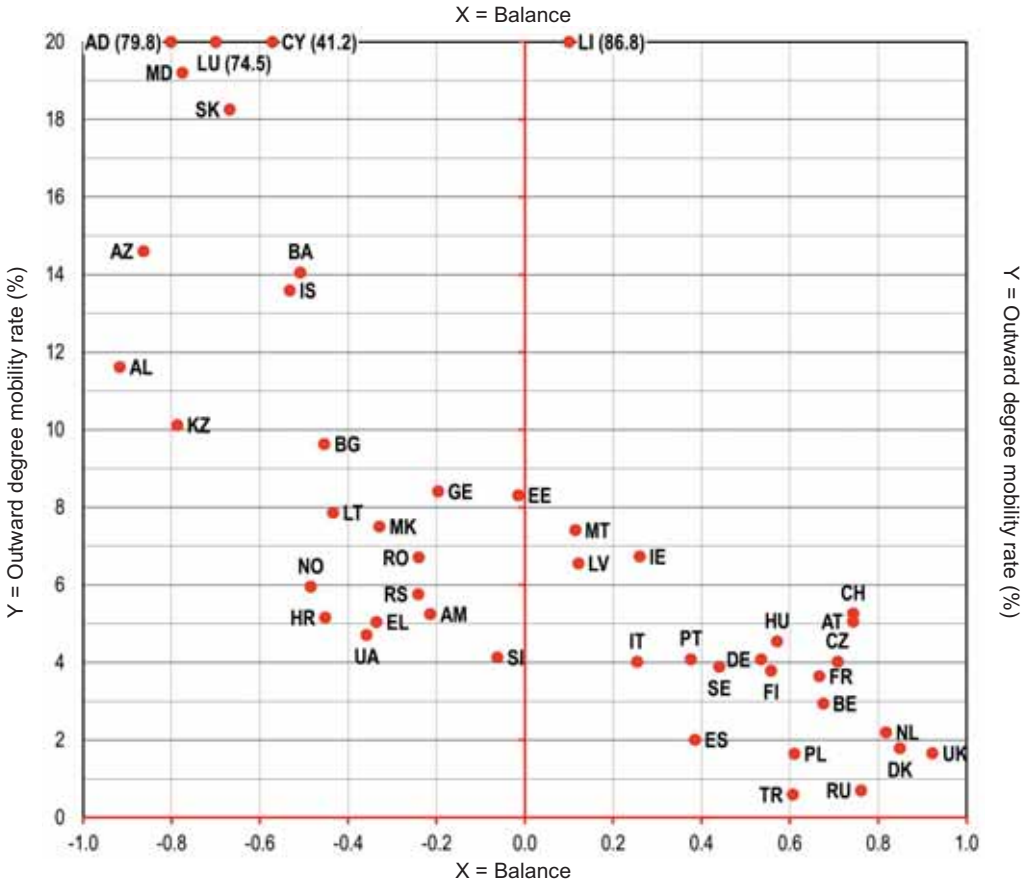
The concept of balanced mobility has various aspects. For example, assuming that mobility is desirable, balanced mobility at low levels of mobility (low inward and low outward mobility rates) may be perceived as less positive than balanced mobility at high levels (high inward and high outward mobility rates).

Figure 5.6 provides information on the (degree) mobility balance in 2017. Whereas the X axis indicates the mobility balance, it does so with reference to the outward degree mobility rate of the respective country depicted in the Y Axis. Hence, the figure shows how balanced the mobility flow of the respective country is with regards to its outward flows.

How far are outward and inward flows balanced? The figure shows an obvious inverse relationship between the mobility balance on the X axis (measured against all students in the countries) taking the outward mobility rate on the Y axis (measured against all students originated from these countries) as point of orientation. Both axes include mobility flows within and outside the EHEA: The higher the importing balance, the lesser the outward mobility rate. For graphical readability purpose, balance is computed as the absolute difference (incoming – outgoing students) divided by the total number of incoming students (when the balance is positive) or by the total number of outgoing students (in case of negative balance). This results in a smoother continuum, more readable when plotted than taking the ratio (incoming/outgoing) which is below 1 for most countries.

([74]) Mobility for better learning. Mobility strategy 2020 for the European Higher Education Area (EHEA), p. 2.

Figure 5.6: Balance as a measure of the attractiveness of the education system of the country at tertiary education level (mobility flows within and outside EHEA), 2016/17



	LI	AD	LU	CY	MD	SK	AZ	BA	IS	AL	KZ	BG	GE	EE	LT
Balance	0.1	-0.8	-0.7	-0.6	-0.8	-0.7	-0.9	-0.5	-0.5	-0.9	-0.8	-0.5	-0.2	0.0	-0.4
Outward rate	86.8	79.8	74.5	41.2	19.2	18.3	14.6	14.1	13.6	11.6	10.1	9.6	8.4	8.3	7.9
	MK	**MT**	**IE**	**RO**	**LV**	**NO**	**RS**	**CH**	**AM**	**HR**	**AT**	**EL**	**UA**	**HU**	**SI**
Balance	-0.3	0.1	0.3	-0.2	0.1	-0.5	-0.2	0.7	-0.2	-0.5	0.7	-0.3	-0.4	0.6	-0.1
Outward rate	7.5	7.4	6.7	6.7	6.6	5.9	5.8	5.3	5.2	5.2	5.1	5.0	4.7	4.5	4.1
	PT	**DE**	**CZ**	**IT**	**SE**	**FI**	**FR**	**BE**	**NL**	**ES**	**DK**	**UK**	**PL**	**RU**	**TR**
Balance	0.4	0.5	0.7	0.3	0.4	0.6	0.7	0.7	0.8	0.4	0.8	0.9	0.6	0.8	0.6
Outward rate	4.1	4.1	4.0	4.0	3.9	3.8	3.6	2.9	2.2	2.0	1.8	1.7	1.6	0.7	0.6

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

The graph highlights interesting differences within the group of countries with very imbalanced importing or exporting mobility flows. More precisely, the United Kingdom, Denmark, and the Netherlands are situated on the right side of the X-axis with the highest imbalance (above 82 % each) and very low shares of outgoing mobile students (below 2.5 %). Austria and Switzerland, despite having high rates of incoming students, have an outward degree mobility rate that is significantly higher (around 5 %). Despite being much more importers than exporters, these two countries display an exporting flow above the general trend levels (considering the group of countries on the lower right side of the graph).

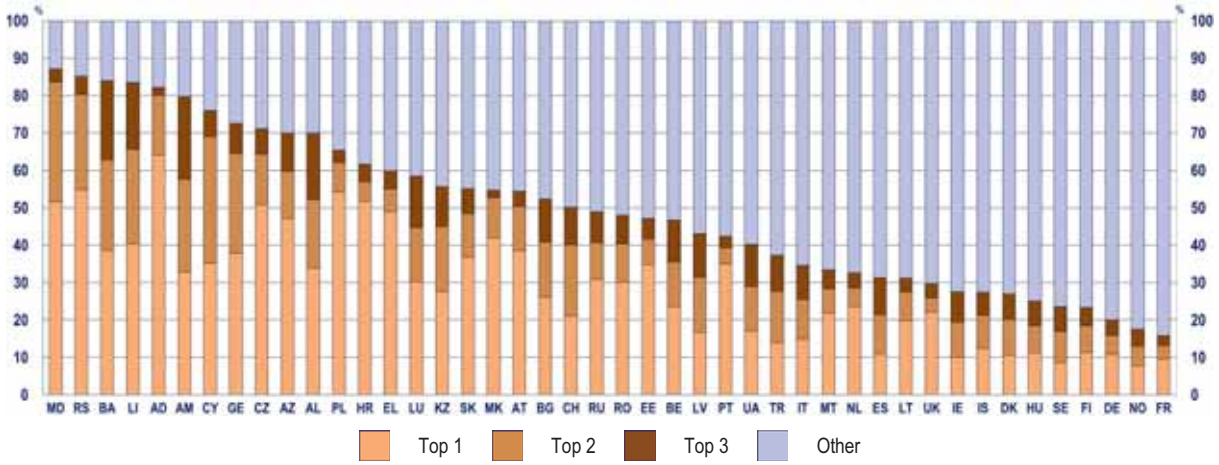
Those systems that are both attractive and also export significant numbers of students can therefore be considered as 'open systems' of the type envisaged in the 2012 Mobility Strategy ([75]). For the moment, they are a minority within the EHEA area. The most 'balanced' country is Estonia with an outward rate of 8.3 %.

([75]) Mobility for better learning. Mobility strategy 2020 for the European Higher Education Area (EHEA), p. 2.

Among countries with strongly imbalanced mobility flows, differences in the outward mobility rates are particularly evident. Andorra, Luxembourg and Cyprus are the highest net exporting countries in the EHEA. The next highest outward rates are found in Moldova and Slovakia, followed by Azerbaijan, Albania and Kazakhstan. Norway, Croatia, Ukraine and Greece also send out many more students than they receive (situated in the left side of the X axis with a balance below -30 %).

The indicator in Figure 5.7 denotes the number of incoming tertiary students enrolled in a given country from the top three countries of origin inside and outside EHEA, as a percentage of all incoming students enrolled in the country. Just like Figures 5.5 and 5.6, this indicator thus covers only degree mobile students. The purpose of this indicator is to provide an estimation of the diversity in the origin of mobile students who may come from different parts of the world. A high percentage indicates that the top country sends a significant amount of incoming students to the receiving country.

Figure 5.7: Student mobility flows: Top three countries of ORIGIN (INWARD) in %, 2017



	MD	RS	BA	LI	AD	AM	CY	GE	CZ	AZ	AL	PL	HR	EL	LU	KZ	SK	MK	AT	BG	CH	RU
Top 1 country	IL	BA	HR	AT	ES	RU	IN	IN	SK	TR	IT	UA	BA	CY	FR	UZ	CZ	TR	DE	EL	DE	KZ
Top 2 country	RO	ME	RS	DE	PT	GE	EL	AZ	RU	IR	RS	BY	SI	DE	DE	IN	UA	RS	IT	TR	FR	UZ
Top 3 country	TR	HR	TR	CH	FR	IN	BD	IQ	UA	RU	ME	IN	DE	AL	BE	KG	RS	AL	BA	UK	IT	TM
	RO	**EE**	**BE**	**LV**	**PT**	**UA**	**TR**	**IT**	**MT**	**NL**	**ES**	**LT**	**UK**	**IE**	**IS**	**DK**	**HU**	**SE**	**FI**	**DE**	**NO**	**FR**
Top 1 country	MD	FI	FR	UZ	BR	AZ	SY	CN	UK	DE	FR	BY	CN	CN	US	DE	DE	FI	RU	CN	SE	CN
Top 2 country	IL	RU	GI	DE	ES	TM	AZ	AL	IT	CN	IT	IN	HK	US	DE	NO	RO	CN	CN	IN	CN	IT
Top 3 country	FR	UA	NL	IN	FR	IN	TM	RO	KW	IT	EC	DE	IN	IN	UK	RO	RS	DE	NP	AT	DE	DE

%	MD	RS	BA	LI	AD	AM	CY	GE	CZ	AZ	AL	PL	HR	EL	LU	KZ	SK	MK	AT	BG	CH	RU
Percentage 1	51.7	54.8	38.6	40.4	64.1	32.8	35.2	37.8	50.8	47.2	33.9	54.3	51.8	48.9	30.2	27.6	36.7	42.1	38.5	26.1	21.1	30.8
Percentage 2	32.0	25.5	24.1	25.2	15.9	24.8	33.8	26.7	13.5	12.5	18.3	7.8	5.1	6.2	14.5	17.5	11.8	10.6	11.8	14.7	19.0	9.9
Percentage 3	3.5	4.9	21.2	17.9	2.2	22.2	6.9	8.1	6.8	10.3	17.8	3.3	4.7	4.8	13.7	10.5	6.6	2.1	4.1	11.6	10.0	8.3
Other	12.9	14.8	16.1	16.5	17.8	20.2	24.0	27.5	28.9	30.0	30.0	34.6	38.3	40.1	41.5	44.4	44.9	45.2	45.5	47.6	49.9	51.0
	RO	**EE**	**BE**	**LV**	**PT**	**UA**	**TR**	**IT**	**MT**	**NL**	**ES**	**LT**	**UK**	**IE**	**IS**	**DK**	**HU**	**SE**	**FI**	**DE**	**NO**	**FR**
Percentage 1	30.2	34.9	23.6	16.7	35.0	16.9	13.9	14.9	21.9	23.5	10.9	19.8	22.2	10.1	12.3	10.6	11.3	8.6	11.3	10.7	7.8	9.6
Percentage 2	10.2	6.8	11.9	14.7	4.3	12.1	13.8	10.6	6.4	5.1	10.6	7.7	3.8	9.3	8.9	9.5	7.2	8.3	7.2	5.2	5.2	3.7
Percentage 3	7.7	5.6	11.3	11.6	3.0	11.3	9.6	9.0	5.0	3.9	9.9	3.7	3.8	8.1	6.2	6.8	6.7	6.6	4.8	4.1	4.6	2.5
Other	52.0	52.8	53.2	56.9	57.6	59.7	62.7	65.5	66.6	67.4	68.6	68.8	70.3	72.5	72.5	73.1	74.9	76.5	76.7	80.0	82.4	84.3

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

The Nordic countries (Norway, Finland, Sweden, Denmark and Iceland,) as well as France, Germany Hungary, Ireland and the United Kingdom show the greatest diversity in geographical backgrounds of incoming mobile students. In these countries the top three destination countries represent a relatively low percentage of the total (less than 30 %).

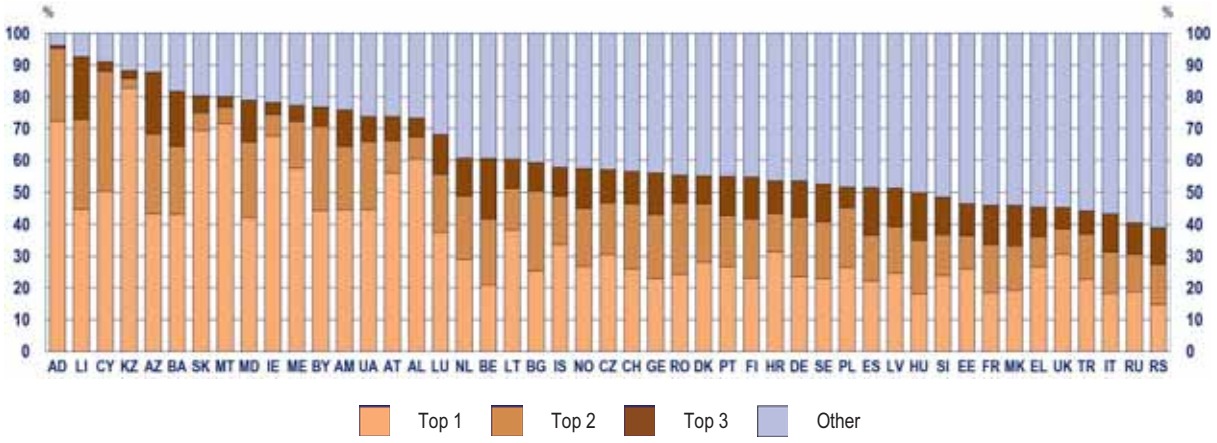
At the other end of the spectrum, in nearly one third of the analysed countries in 2017, the origin of students was not diverse, as more than 50 % of incoming students came from the top three countries.

In Moldova, Serbia, Bosnia and Herzegovina, Liechtenstein, Andorra and Armenia, the top three countries covered 80 % or more of the incoming students, while Cyprus, Georgia and Czechia also showed a high concentration of incoming students – each above 70 %. In the case of Czechia, which is among the countries with a high share of degree seeking mobile students (11.1 %), the top-ranking country (Slovakia) corresponds to roughly 6 % of its total student population. Similarly for Luxembourg, the 30 %-contribution from France accounts for 12 % of the country's student population.

Geographical proximity as well as the share of common language of instruction or cultural and historical legacies seem to be possible factors in determining the size of the incoming student population from particular countries. For instance, such factors may explain the pattern of students received in Estonia (from Finland, Russia and Ukraine), Luxembourg (from France, Germany and Belgium), Portugal (from Brazil, Spain and France) and Sweden (from Finland and Germany). Apart from the Swedish students in Norway, the big inward mobility flows in these countries as well as Finland and Germany come from China, while Germany also receives a significant number of students from India. Moreover, countries with high shares of incoming students from non-EHEA countries show overall more diversity regarding the origin of inward students (Sweden, Norway, France, the United Kingdom and Ireland).

Figure 5.8 shows the top three countries of destination, computing the number of mobile tertiary students of a given country of origin enrolled in the top three destination countries, as a percentage of all mobile tertiary students of that country. Again, this indicator considers degree mobility only. The variety of destinations is impacted by certain restrictions in the data collection of mobility beyond the EHEA. Only Australia, Brazil, Canada, Chile, Colombia, Japan, New Zealand and the United States are covered in the collection of data when it comes to outward degree mobility outside the EHEA. At national level, the various measures aimed at fostering student mobility also have an impact on the extent of diversity, since they usually prioritise particular geographical regions, sub-geographical areas or specific countries for privileged cooperation.

Figure 5.8: Student mobility flows: Top three countries of DESTINATION (OUTWARD) in %, 2016/17



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

	AD	LI	CY	KZ	AZ	BA	SK	MT	MD	IE	ME	BY	AM	UA	AT	AL	LU	NL	BE	LT	BG	IS	NO	CZ
Top 1	ES	AT	DE	RU	RU	AT	CZ	IE	IT	FR	AL	LT	DE	DE	CH	EL	BE	BE	FR	DK	DE	DK	DK	DE
Top 2	FR	CH	EL	TR	TR	HR	HU	NL	RO	UK	BA	PL	FR	PL	DE	IT	DE	UK	NL	NL	NL	UK	UK	SK
Top 3	UK	DE	UK	USA	UA	RS	UK	UK	RU	USA	RS	RU	RU	RU	UK	TR	FR	USA	UK	UK	UK	USA	USA	UK

	CH	GE	RO	DK	PT	FI	HR	DE	SE	PL	ES	LV	HU	SI	EE	FR	MK	EL	UK	TR	IT	RU	RS
Top 1	DE	AM	FR	DE	ES	EE	AT	AT	DK	DE	FR	DE	AT	AT	DK	BE	BG	BG	DE	DE	AT	CZ	AT
Top 2	FR	DE	IT	UK	FR	SE	BA	NL	UK	FR	UK	DK	DE	DE	FI	CAN	IT	CY	NL	UK	FR	DE	BA
Top 3	UK	UA	UK	USA	UK	UK	IT	UK	USA	UK	USA	UK	UK	UK	UK	UK	TR	UK	USA	USA	UK	USA	HU

Data Figure 5.8 (continued):

%	AD	LI	CY	KZ	AZ	BA	SK	MT	MD	IE	ME	BY	AM	UA	AT	AL	LU	NL	BE	LT	BG	IS	NO	CZ
Top1 %	72.4	44.9	50.2	82.9	43.3	43.2	69.3	71.7	42.1	67.7	57.5	44.5	44.5	44.8	56.0	60.4	37.5	28.9	20.9	38.2	25.3	33.7	26.8	30.6
Top2 %	22.8	28.0	37.9	2.9	24.9	21.2	5.8	5.1	23.6	6.7	14.9	26.2	19.9	21.0	10.1	7.0	18.2	20.1	20.9	13.0	25.0	15.4	18.3	16.3
Top3 %	1.0	19.9	3.1	2.5	19.5	17.2	5.2	3.4	13.1	3.8	5.0	6.0	11.4	7.9	7.6	5.8	12.4	11.8	18.7	9.0	9.1	8.5	12.1	10.0
Others %	3.8	7.3	8.9	11.8	12.2	18.4	19.7	19.8	21.1	21.8	22.6	23.2	24.2	26.2	26.3	26.8	32.0	39.2	39.4	39.7	40.6	42.4	42.7	43.1
	CH	GE	RO	DK	PT	FI	HR	DE	SE	PL	ES	LV	HU	SI	EE	FR	MK	EL	UK	TR	IT	RU	RS	
Top1 %	25.9	22.9	24.3	28.2	26.6	23.1	31.3	23.6	22.9	26.4	22.2	24.7	18.1	23.9	25.9	18.5	19.3	26.6	30.6	22.8	18.4	18.9	14.8	
Top2 %	20.7	20.4	22.4	18.4	16.3	18.7	12.2	18.8	18.0	18.9	14.6	14.6	17.1	12.9	10.5	15.2	14.0	9.5	8.1	14.3	13.0	11.7	12.7	
Top3 %	9.8	12.8	8.5	8.4	12.1	12.8	9.9	11.0	11.4	6.3	14.5	11.9	14.6	11.9	10.1	12.3	12.7	9.4	6.7	7.3	12.0	10.0	11.4	
Others %	43.6	44.0	44.8	45.0	45.1	45.4	46.6	46.6	47.7	48.4	48.8	48.8	50.2	51.3	53.4	54.0	54.0	54.6	54.6	55.7	56.6	59.5	61.1	

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

Andorra, Liechtenstein and Cyprus show the least diverse outward mobility patterns. More than 90 % of outgoing students of those countries study in only three countries of destination. For Andorra, these countries are Spain, France and the United Kingdom, for Liechtenstein, they are Austria, Switzerland and Germany, while for Cyprus, it is Germany, Greece and the United Kingdom. Mobile students from France, North Macedonia, Italy, Serbia, Russia, Turkey, Greece and the United Kingdom spread wider as the top three destinations cover a maximum of 46 % of all outgoing students.

The United Kingdom receives by far the highest number of mobile students, and hence it is not surprising that it is a top destination for students from many other countries (in 30 out of 46). It reaches at least a percentage of 10 % of outward students in: the Netherlands (20 %), Belgium (19 %), Sweden (18 %), Norway (18 %), Denmark (18 %), Spain (15 %), Hungary (15 %), Iceland (15 %), Turkey (14 %), Finland (13 %), Portugal (12 %), Slovenia (12 %), Italy (12 %), France (12 %), Latvia (12 %), Germany (11 %) and Estonia (10 %). Germany is the most common destination for students from Cyprus (50 %), Armenia (45 %) and Ukraine (45 %). France and the United States are also among the top destination countries for degree mobile students.

In some cases, the mobility flows are not as heterogeneous. For instance, nearly 38 % of Cypriot mobile students go to Greece, which sends 49 % of its mobile students to Cyprus. Austria, the Netherlands and Switzerland receive 39 %, 24 % and 21 % respectively of German mobile students, while most students from Luxembourg, Montenegro and Liechtenstein move to neighbouring countries.

5.3. Qualitative data

5.3.1. Portability of public grants and publicly-subsidised loans

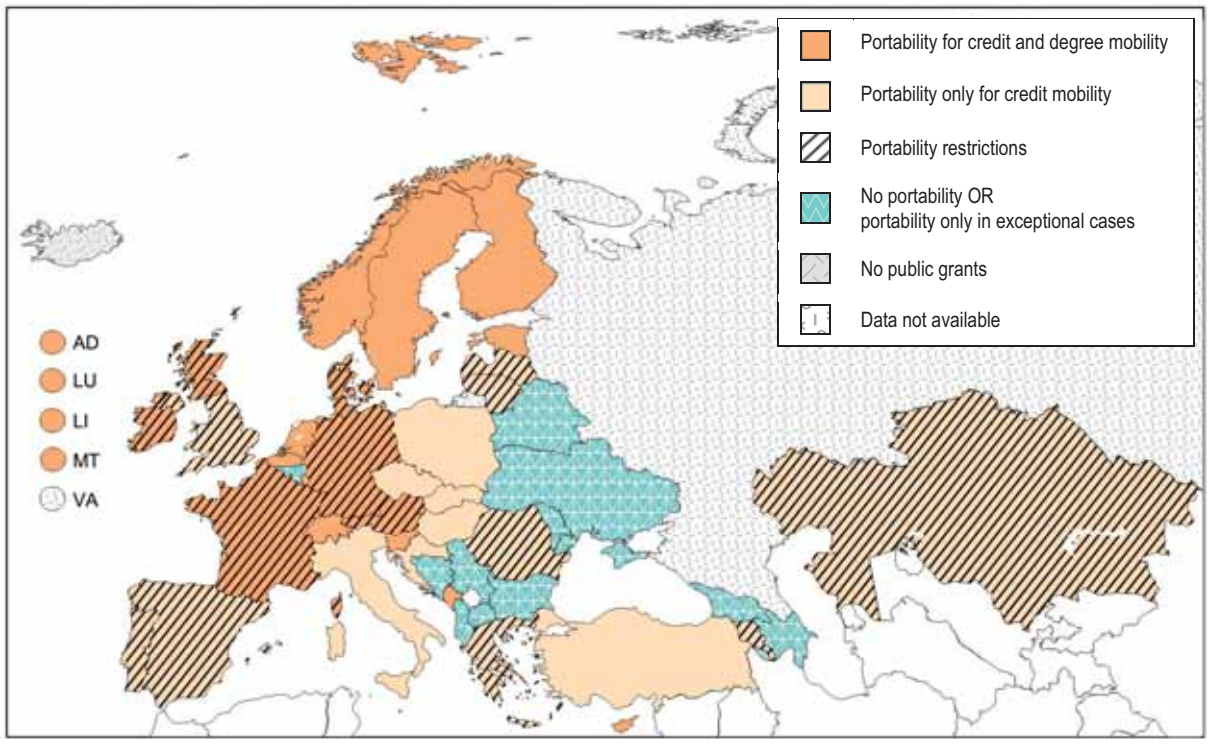
Lack of (sufficient) funding is often identified as a main obstacle to learning mobility, as the most recent Eurostudent survey report again demonstrates (DZHW, 2018, p. 25). One important aspect of mobility funding is the possibility for students to take domestic grants and/or loans to another EHEA system. This possibility – that is referred to as 'portability' – should ideally apply to both short-term study visits in the framework of a home-country programme (credit mobility) and entire-degree courses (degree mobility). The indicators that follow start by examining portability of domestic public grants and publicly-subsidised loans (see Figures 5.9 and 5.10). These two aspects are then brought together in Scorecard indicator n°12 on portability (see Figure 5.11).

Figure 5.9 shows the main characteristics of portability in the case of grants. It distinguishes between portability for short-term study visits which lead to credits in the framework of a home country programme (credit mobility) and portability for an entire degree course (degree mobility). Moreover, the figure provides details on portability restrictions, meaning additional requirements that students and/or the chosen study programme abroad need to fulfil for the grant to be portable. These include, for example, specifying the countries to which students can take their grants (e.g. portability within the European Economic Area only) or placing limits on the time spent abroad. The most severe restriction

is when students can only take their grants abroad to study if no equivalent programme is available in the home country. Since this means that portability is allowed only in exceptional cases, countries applying this condition are depicted in the same way as those having 'no portability'.

The figure indicates that the most restrictive policies in terms of grant portability are found in Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, North Macedonia, Georgia, Serbia and Ukraine. In general, students from these countries cannot use their domestic grants when studying abroad, be it for a short period of time (credit mobility) or a longer period (degree mobility). The French Community of Belgium and Moldova also appear in the same category, as grants are portable only if there is no equivalent programme in the home system.

Figure 5.9: Portability of public grants, first and second cycle, 2018/19



Source: BFUG data collection.

Notes:

The figure covers domestic public grants, i.e. different types of grants issued by public authorities in the home country. It excludes public grants dedicated specifically to mobility.

The figure focuses on the portability of grants within the European Higher Education Area (EHEA).

When the category 'portability for credit and degree mobility' is combined with 'portability restrictions', it means that there are restrictions related either to both types of portability (i.e. credit **and** degree) or to one type only (i.e. credit **or** degree).

For around one third of all higher education systems considered, grant portability is limited to credit mobility, i.e. when students move abroad for a short period of time (e.g. a semester or an academic year) in the framework of their home-country programme. Some of these systems apply portability restrictions (Armenia, Greece, Kazakhstan, Latvia, Lithuania, Portugal, Romania, Spain and the United Kingdom – England, Wales and Northern Ireland), limiting, in particular, the portability of grants to programme exchanges within recognised schemes such as Erasmus+ (e.g. Greece, Latvia, Lithuania, Portugal, Spain and the United Kingdom – Wales and Northern Ireland). The same restrictions also apply to Scotland. However, this higher education system is not reported among those limiting portability of grants to credit mobility as it is conducting a degree portability pilot with a small group of selected institutions in the EU.

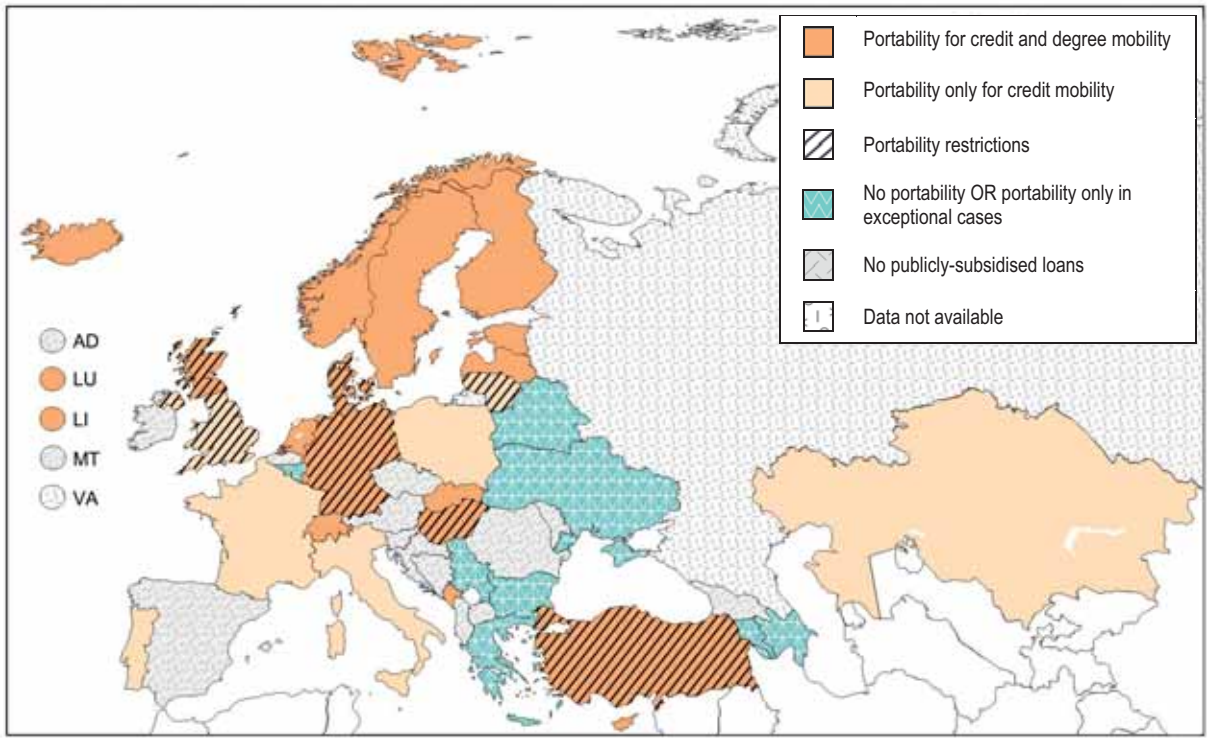
In 20 EHEA systems, grants are portable for both credit and degree mobility purposes. Six of these systems apply portability restrictions (Austria, Denmark, France, Germany, Ireland and the United

Kingdom – Scotland). For example, Germany limits degree portability to EU countries and to Switzerland, whereas the United Kingdom (Scotland) applies even stricter criteria, limiting its pilot degree portability scheme to a small number of selected higher education institutions in the EU. Ireland provides a further example of portability restrictions, limiting credit portability to mobility explicitly required by home country programmes, and portability for degree purposes to EU countries only.

Figure 5.10 examines whether publicly-subsidised loans are portable and, if so, whether there are any specific restrictions on portability. The information is structured similarly to the one on grants, in that it distinguishes between portability for credit and degree mobility, and identifies countries with portability restrictions.

The figure shows that publicly-subsidised loans are offered in only around two-thirds of all EHEA systems, and are thus less widespread than public grants. Moreover, as the higher education mobility scoreboard shows (European Commission/EACEA/Eurydice, 2020), some systems register only a negligible proportion of loan beneficiaries among their student population (e.g. up to 1 % in the French Community of Belgium, France, Italy, Slovakia and Switzerland), so that loans in these systems cannot be regarded as a major element of national student support (i.e. their portability is not considered in Scorecard indicator n°12 – Figure 5.11).

Figure 5.10: Portability of publicly-subsidised loans, first and second cycle, 2018/19



Source: BFUG data collection.

Notes:

The figure covers publicly-subsidised loans, i.e. different types of loans subsidised by public authorities in the home country. It excludes publicly-subsidised loans dedicated specifically to mobility.

The figure focuses on portability within the European Higher Education Area (EHEA).

When the category 'portability for credit and degree mobility' is combined with 'portability restrictions', it means that there are restrictions related either to both types of portability (i.e. credit **and** degree) or to one type only (i.e. credit **or** degree).

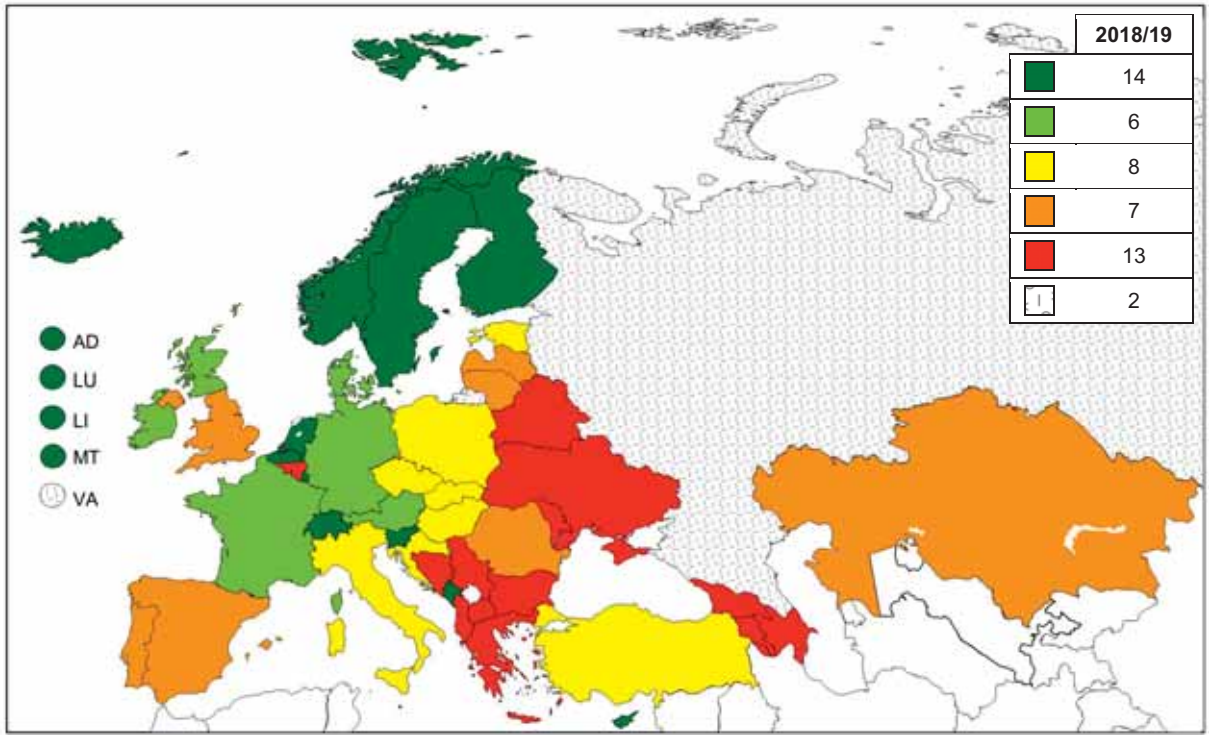
In general, countries that offer publicly-subsidised loans allow at least a certain level of portability. Exceptions to this pattern are Armenia, Azerbaijan, Belarus, Bulgaria, Greece, Serbia and Ukraine, where students cannot benefit from their loans if they study abroad, be it for credit or degree purposes. As with grants, the French Community of Belgium allows portability only in exceptional cases, when there is no equivalent programme within the Community.

Among systems where loans are portable, seven limit portability to credit mobility (France, Italy, Kazakhstan, Lithuania, Poland, Portugal and the United Kingdom – England, Wales and Northern Ireland) and, among these systems, some apply even stricter limitations. For example, in Lithuania and the United Kingdom (England, Wales and Northern Ireland), loans are only portable if the mobility experience falls under recognised exchange schemes such as Erasmus+.

Most systems that offer publicly-subsidised loans allow portability for both credit and degree mobility (with or without restrictions). While the overall geographical pattern is very similar to the portability of grants, some countries with limited grant portability – in particular Hungary, Latvia, Slovakia and Turkey – are more flexible when it comes to the portability of publicly-subsidised loans (i.e. loans are portable – with or without restrictions – for credit as well as degree mobility, whereas grants are only portable for credit mobility). Iceland is another noteworthy case, as although there is no standard grant package, publicly-subsidised loans are portable with no restrictions.

Scorecard indicator n°12 (Figure 5.11) brings together the elements presented in the two previous figures and puts countries' existing schemes into pre-defined categories.

Figure 5.11: Scorecard indicator n°12:
Portability of public grants and publicly-subsidised loans, 2018/19



Source: BFUG data collection.

Scorecard categories

	Full portability across the EHEA of all available domestic student support measures – grants and/or loans – for credit and degree mobility. Equivalent requirements for public grants and/or loans if students study in the home country or abroad.
	Portability of available domestic student support measures – grants and/or loans – for credit and degree mobility, but with some restrictions related to geography (country limitations), and/or types of programme, and/or field of study or time.
	Portability for credit mobility, without restrictions. No portability for degree mobility OR not all major support measures are portable for degree mobility.
	Portability for credit mobility but with some restrictions related to geography (country limitations), and/or types of programme, and/or field of study or time. No portability for degree mobility OR not all major support measures are portable for degree mobility.
	No portability: public grants and/or loans are only provided if students study in the home country or in exceptional cases (no equivalent programme is available in the home country).
	Not available

The indicator is based on a five-category colour-coded scheme where dark green represents full portability of all available domestic student support (this means that equivalent conditions apply to the awarding of public grants and/or provision of loans regardless of whether students intend to study in the home country or abroad). At the other end of the scale, the red category signifies no portability, or portability that is only permitted if no equivalent programme is available in the home country, i.e. domestic support is only portable in exceptional circumstances. There are three transitional categories between dark green and red. The first of them – light green – refers to systems where domestic support can be taken abroad for credit and degree mobility. However, some restrictions apply, e.g. portability only applies to certain defined countries or there are limits on the time spent abroad. The two other categories – yellow and orange – cover systems that limit the portability of all or most forms of domestic support to credit mobility, the distinguishing feature between the two categories being the presence or absence of portability restrictions.

In accordance with the above criteria, the indicator shows that unrestricted portability of all domestic support for credit as well as degree mobility ('dark green') exists only in fourteen EHEA systems. These are four Nordic systems (Finland, Iceland, Norway and Sweden), Andorra, Cyprus, the Flemish Community of Belgium, Liechtenstein, Luxembourg, Malta, Montenegro, the Netherlands, Slovenia and Switzerland. Some of these systems offer to their student population both grants and loans (nine systems), whereas in other instances, there is only one type of public support, i.e. either public grants (Andorra, the Flemish Community of Belgium, Malta and Slovenia) or publicly-subsidised loans (Iceland).

In six higher education systems (Austria, Denmark, France, Germany, Ireland and the United Kingdom – Scotland), all major support schemes are portable for credit as well as degree mobility; yet, there are various portability restrictions ('light green'). As discussed previously, these are mainly related to geography (i.e. mobility only towards certain countries).

A further eight systems (Croatia, Czechia, Estonia, Hungary, Italy, Poland, Slovakia and Turkey) limit the portability of their domestic support to credit mobility only, generally with no restrictions ('yellow'). It is noteworthy that three of these systems (Hungary, Slovakia and Turkey) provide publicly-subsidised loans that are portable for both credit as well as degree mobility. However, grants are only portable for credit mobility experiences. The flexibility is even higher in Estonia, where loans as well as two grant schemes (need-based study allowance and scholarships for students with special needs) are fully portable, but the portability of other grants is limited to credit mobility.

Seven countries (Kazakhstan, Latvia, Lithuania, Portugal, Romania, Spain and most parts of the United Kingdom) apply various restrictions to credit mobility ('orange'). Among them, Latvia offers fully portable loans; yet, the portability of grants is limited to credit mobility with restrictions. Kazakhstan provides loans that are portable for credit mobility without restrictions, while grants are portable for credit mobility with restrictions.

Finally, 13 higher education systems (Albania, Armenia, Azerbaijan, the French Community of Belgium, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Greece, North Macedonia, Moldova, Serbia and Ukraine) provide domestic support with no portability or allow portability only under exceptional circumstances, such as when there is no equivalent programme in the home system. ('red'). Armenia and Greece have a unique position in this group, as grants are portable for credit mobility (with restrictions), but loans are not.

Overall the analysis suggests that, in less than half of all European higher education systems, domestic financial support is portable for credit as well as degree mobility (though some restrictions may apply). Moreover, the data point to a rather clear geographical pattern, in particular a contrast between northern and north-western Europe with a high degree of portability, and eastern Europe with low to non-existent portability.

5.3.2. Supporting the mobility of students from disadvantaged groups

Not all students have equal access to learning mobility opportunities. Evidence shows that students from low socio-economic backgrounds and students with disabilities are less likely to participate in such programmes (DZHW, 2018; European Commission, 2019). Disadvantaged students therefore miss out on the benefits conferred by these experiences, further deepening the divide with their peers.

In order to improve the current situation, the Bologna Process highlights the important place of learning mobility within the social dimension of higher education, calling for the increasing participation of students from disadvantaged backgrounds in international mobility ([76]).

Following the above, this section examines support provided to disadvantaged learners. Four main aspects of top-level support are considered:

1. long-term quantitative policy objectives on the mobility participation of disadvantaged students in mobility programmes;
2. comprehensive monitoring of the participation of disadvantaged students in mobility programmes;
3. financial support in the form of public grants provided to disadvantaged students to participate in mobility programmes (without taking into account the proportion of students receiving support and the amount they get); and
4. recommendations/incentives provided to higher education institutions to implement targeted measures supporting the participation of disadvantaged students in mobility programmes.

These aspects are discussed in turn.

Quantitative policy objectives are understood as numerical targets set by top-level authorities for the proportion of disadvantaged students participating in learning mobility. The setting of such objectives signals a strong political commitment towards increasing the participation of disadvantaged students in learning mobility programmes.

Some EHEA countries have in place short-term quantitative policy objectives related to mobility of disadvantaged students. In particular, national Erasmus+ agencies might set year-by-year targets on the participation of disadvantaged learners. Examples of such short-term objectives can be found in Greece (in 2019, 5.5 % of Erasmus+ students should be students with special needs) and France (in 2018, 30 % of Erasmus+ students should have come from low socio-economic backgrounds). These short-term objectives are not considered in Scorecard indicator n°13.

So far, only a limited number of EHEA systems (Austria, the Flemish Community of Belgium, France and Slovenia) have in place long-term quantitative policy objectives related to mobility of disadvantaged students. More specifically, by 2025, Austria aims to increase learning mobility programmes of students whose parents do not have higher education qualifications to at least 18 % (Bundesministerium für Wissenschaft, Forschung und Wirtschaft, 2017, p. 32). The Flemish Community of Belgium is aiming for 33 % of mobile students to come from disadvantaged groups by 2020 (Vlaams Ministerie van Onderwijs en Vorming, 2013, p. 64). In France, the French National Strategy for Higher Education puts forward a proposal to double student mobility (including the share of students with low socio-economic background) by 2025, in particular thanks to a specific mobility grant for disadvantaged students (Ministère de l'éducation nationale, de l'enseignement supérieur et de la recherche, 2015, p. 18) In Slovenia, by 2020, 10-15 % of all Erasmus+ students should come from a disadvantaged background (Government of the Republic of Slovenia, 2016, p. 2).

([76]) See, for example, the Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, pp. 2-3.

Monitoring relevant characteristics of the student population participating in mobility allows policy-makers to obtain information on whether different groups of students can – and do – participate proportionally in mobility programmes. Such information is important for being able to design and provide adequate support for students from disadvantaged backgrounds.

Comprehensive monitoring practices – i.e. those seeking to provide a comprehensive picture of the participation of disadvantaged students across all major mobility programmes – are not widespread across the EHEA. Some EHEA countries monitor the participation of students from disadvantaged groups in some specific mobility programmes, but not in all of them. Such partial monitoring is not considered under Scorecard indicator n°13. Moreover, the indicator does not consider the compulsory Erasmus+ monitoring for countries participating in the Erasmus+ programme. Only six countries, corresponding to eight EHEA systems (Austria, Belgium – the French and Flemish Communities, France, Germany, Italy and the systems in the United Kingdom), have in place such monitoring mechanisms. However, these monitoring systems vary in the way information is collected:

- In the French and Flemish Communities of Belgium and France, data on students participating in mobility programmes are collected by the ministries of education. In the Flemish Community of Belgium, the Ministry of Education and Training has a central database for higher education which contains all data on mobility, including information on students' socio-economic background or disability.
- In Germany and Austria, student surveys are conducted every three to four years ([77]).
- In Italy and the United Kingdom, information on these students is included in the annual data collection of statistical offices. In Italy, the statistical office collects data on the mobility of students, distinguishing between grant holders and non-grant holders. Given that grants are awarded on need-based criteria, this provides information on students by socio-economic background. In the United Kingdom, the Higher Education Statistics Agency collects data on students participating in learning mobility by ethnicity, socio-economic background and gender ([78]).

Financial support is essential if disadvantaged students are to participate in international mobility. Given the financial difficulties of students from low socio-economic backgrounds, or the extra financial burden facing students with disabilities, the learning mobility support considered here is restricted to non-repayable forms of public support: public grants. Two main models of this type of provision exist in Europe.

In the first model, disadvantaged students receive *targeted support* that is available only to them. This can take the form of either specific learning mobility grants, or need-based domestic grants that are portable, at least for credit mobility. The second model is based on the so-called *mainstreaming approach*. According to this model, countries provide portable grants to the majority (more than 50 %) of students. In this case, disadvantaged students are not targeted specifically (though the amount awarded might be determined on need-based criteria), but their support is ensured by the holistic approach towards grant provision. In other words, the logic behind this approach is that if all (or at least the majority of) students receive grants, grant provision is 'mainstream' and, consequently, the support of those in need is ensured without them being specifically targeted by education authorities.

The overwhelming majority of EHEA systems use the first model of financial support for disadvantaged students, i.e. the targeted approach. More specifically, around half of all EHEA systems have in place portable domestic need-based grants, whereas in around one third of the systems, there are specific mobility grants for disadvantaged students. These two approaches are often combined, meaning that

([77]) See the Social Survey website http://www.sozialerhebung.de/sozialerhebung/documents/englisch for Germany, and the survey results at http://www.sozialerhebung.at/index.php/en/ for Austria.

([78]) For details, see the 'Go International' website: http://go.international.ac.uk/student-profiles-and-identities

a number of systems offer both portable domestic need-based grants and specific mobility grants for the disadvantaged. A small number of countries have in place the mainstreaming approach, i.e. grants for more than 50 % of students (namely Denmark, Finland, Luxembourg, Malta, Norway, Sweden and the United Kingdom – Wales and Northern Ireland). The mainstream grants are sometimes provided alongside targeted (need-based) grants. In Norway, while only 49 % of students receive grants in the first cycle, 55 % do so in the second. Therefore, on the basis of information provided for the two cycles, the country is included in the group providing mainstream grants.

Twelve higher education systems, situated predominantly in southeastern part of the EHEA (Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Iceland, Moldova, Montenegro, North Macedonia, Russia, Serbia and Ukraine) offer neither targeted mobility grants, nor portable need-based grants. Grants that exist in these countries are either portable, but primarily merit-based, or not portable, irrespective of the awarding criteria (see the previous section). There are no public grants in Iceland.

Finally, **top-level recommendations** on how to provide support for the participation of students from disadvantaged groups in mobility programmes can provide important incentives to higher education institutions to implement targeted measures. In addition, top-level authorities may also decide to introduce performance-based funding or other financial **incentives** linked to the mobility participation of disadvantaged learners.

Top-level recommendations and/or incentives to higher education institutions to implement targeted measures supporting the mobility participation of disadvantaged students exist in eight EHEA systems: Austria, the Flemish Community of Belgium, France, Greece, Italy, Kazakhstan, Slovenia and Turkey.

Some of these recommendations concern only the participation of students with disabilities in mobility programmes. Three education systems have prepared handbooks or guidelines for higher education institutions on the special provisions made for students with disabilities with regard to learning mobility applications. For example, the 2015 Handbook of the Flemish Community of Belgium on study and internships abroad includes one chapter dedicated to students with disabilities. A similar Handbook was also prepared by the Turkish National Agency in 2018, outlining the preferential treatment to be given to students with disabilities applying for places on learning mobility programmes. In Greece, the National Erasmus+ Agency instructs higher education institutions to give priority to students with special needs as long as they fulfil the selection criteria, and it has published leaflets in braille for distribution to Greek higher education institutions.

A more general approach towards improving the participation of disadvantaged learners in mobility programmes is taken in other education systems. Conferences and publicity campaigns are used (in the Flemish Community of Belgium), as are ministry circulars (in France) or ministerial recommendations (Kazakhstan). Two education systems (Austria and Slovenia) include specific provisions in learning mobility strategies. In Austria, the 2016 Higher Education Mobility Strategy includes recommendations on the development and implementation of targeted measures for improving the participation of under-represented groups in learning mobility. This is also supported by the 2017 National Strategy on the social dimension in higher education. In Slovenia, the Strategy for the Internationalisation of Slovenian Higher Education includes provisions for promoting the participation of disadvantaged learners in mobility programmes.

Finally, financial incentives exist in Italy, where the proportion of disadvantaged students and students participating in learning mobility programmes are taken into account in the funding awarded to higher education institutions.

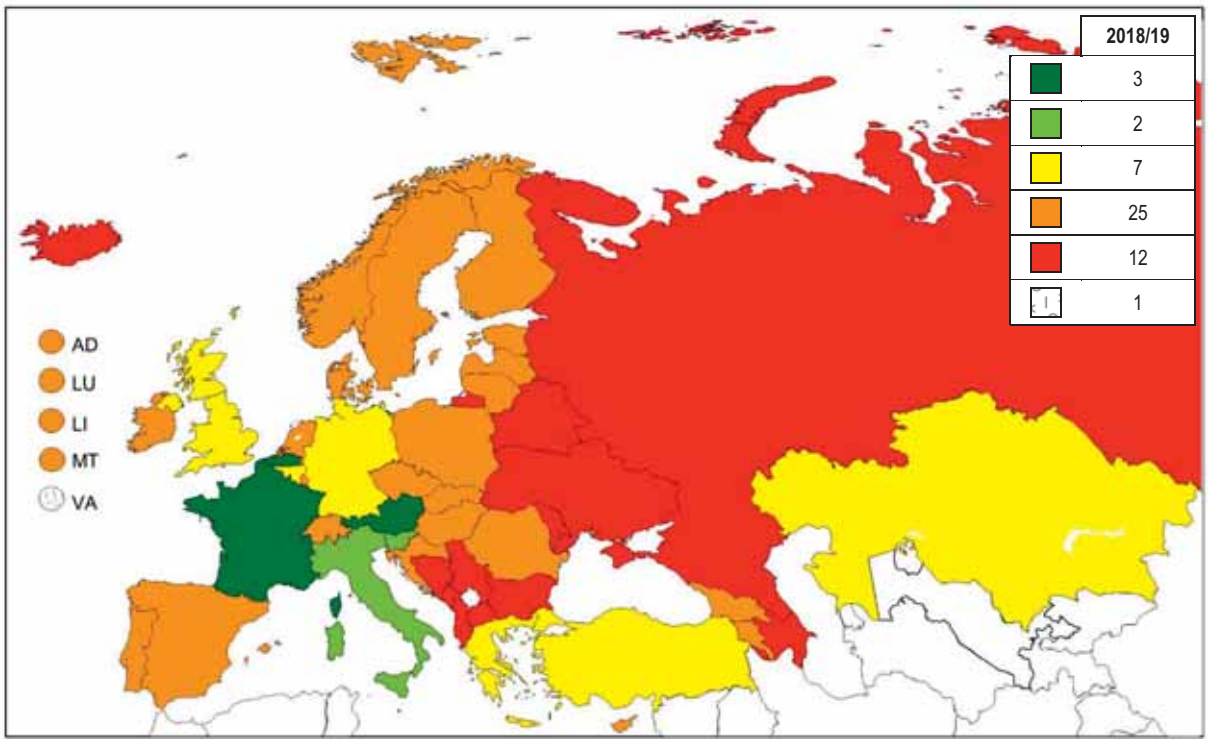
Scorecard indicator n°13 depicted on Figure 5.12 summarises the measures supporting the mobility of students from disadvantaged groups. The indicator applies the five-colour scheme from 'dark green' to 'red'. A country should have the following four elements of mobility support in place to be in the 'dark green' category:

1. long-term top-level quantitative policy objectives regarding the participation of disadvantaged students in mobility programmes;
2. comprehensive monitoring of the participation of disadvantaged students in mobility programmes;
3. financial support provided to disadvantaged students, either based on the targeting or the mainstreaming model; and
4. top-level recommendations and/or incentives to higher education institutions to implement targeted measures supporting the mobility participation of disadvantaged students.

Education systems with three elements in place are in the 'light green', those with two elements in the 'yellow', and with one element in the 'orange' category. Education systems with no support measures for disadvantaged learners identified by this indicator are placed in the 'red' category.

Most elements of the scoreboard indicator require a specific focus on disadvantaged learners. While general policy measures may also enhance the participation of these groups of students in learning mobility (hence the inclusion of mainstream grants among financial support measures), given the vulnerable position of students from under-represented groups, this indicator aims to capture the presence of targeted policies in the education systems under analysis.

Figure 5.12: Scorecard indicator n°13:
Supporting the mobility of students from disadvantaged groups, 2018/19



Source: BFUG data collection.

Scorecard categories

	The following measures are undertaken to increase the participation of disadvantaged learners in learning mobility:
	• Long-term quantitative objectives on the participation of disadvantaged learners;
	• Comprehensive monitoring of the participation of disadvantaged learners in mobility programmes;
	• Financial support in the form of:
	  ○ Targeted specific mobility grants **OR**
	  ○ Portable need-based grants **OR**
	  ○ Mainstream portable grants provided to more than 50 % of students;
	• Top-level recommendations/incentives to HEIs to implement targeted measures supporting the participation of disadvantaged students in mobility programmes.

	Three out of the four types of measures are undertaken.
	Two out of the four types of measures are undertaken.
	One out of the four types of measures is undertaken.
	None of the four types of measures are undertaken.
	Not available

The figure illustrates that comprehensive mobility support targeting disadvantaged learners is very rare. There are only three EHEA systems in the 'dark green' category (Austria, the Flemish Community of Belgium and France) and two in the 'light green' (Italy and Slovenia).

A further seven higher education systems in six countries (the French Community of Belgium, Germany, Greece, Kazakhstan, Turkey and the United Kingdom) have two out of the four measures in place ('yellow'). In the French Community of Belgium, Germany and the United Kingdom, in addition to targeted financial support, comprehensive monitoring systems have been established; while in Greece, Kazakhstan and Turkey, financial support is complemented by top-level recommendations to higher education institutions.

More than half of all EHEA systems (25) are marked in 'orange'. They provide financial learning mobility support to disadvantaged students, but they neither monitor the effect of this financial support on the participation of disadvantaged learners nor take any steps to encourage higher education institutions to promote the participation of students from under-represented groups in learning mobility programmes.

Finally, 12 EHEA systems do not support the participation of disadvantaged students in learning mobility by any of the means described above.

5.4. Conclusions

The Bologna Process has not only been a catalyst for structural reforms and the development of quality assurance systems, but has also stimulated greater mobility and internationalisation. Despite problems in measuring the different forms of student mobility, it is clear that international student mobility has grown considerably during the past two decades.

Nevertheless the target of 20 % of graduates experiencing mobility by 2020 has not been met with the overall weighted average for the EHEA standing at 9.4 %. Indeed with hindsight it seems that this target was set somewhat blindly, as countries were unaware of the actual reality of student mobility in 2009, and insufficient account was taken of general increases in student numbers. This meant that very significant increases in actual numbers of mobile students would be required to increase the overall percentage of mobile students. Nevertheless, it is noteworthy that if only ISCED levels 7 and 8 (master and doctoral level) were considered, the EHEA as a whole would now be close to the 20 % target.

Although the setting of the 20 % mobility target lacked thorough consideration of relevant contextual factors, it did nevertheless have important positive consequences for the support and development of student mobility in the EHEA context. It created new momentum for international student mobility, by repositioning it at the top of the ministerial agenda. It also gave a significant push to improving the international data collections on mobility in general, and on credit mobility in particular.

Even though it is impossible to prove causality, the focus throughout the Bologna Process on improving recognition, ECTS, Diploma Supplement and portability of student support are likely to have facilitated both credit and degree mobility. Moreover the introduction of a common three cycle degree system has made it much easier to study one cycle in one country and another in a different country. Nowadays the majority of degree-mobile students in the EHEA – both from outside and from within the EHEA – are studying at master level. The Bologna three-cycle system also underpins the success of joint international master programmes as developed within the Erasmus Mundus programme.

As well as developing and adopting an arsenal of instruments to boost mobility, the Bologna Process has also been a voice for inclusive mobility. In particular, it has drawn attention to the need for the less advantaged part of the student body also to have the opportunity to benefit from mobility. Despite giving voice to this issue, there remains a lot more to do to target support to disadvantaged students in order to make inclusive mobility a reality.

Some aspects of internationalisation have grown in importance throughout the Bologna period and merit greater attention in the future. English-medium instruction has developed rapidly with significant cultural, educational and linguistic consequences. ‘Internationalisation at home’ is also a notion that, although already present for a considerable period, could become more significant in the coming years – particularly in light of recent developments in blended learning. Transnational education, which has marked the practice and discourse of internationalisation in the last two decades, could also be further explored in the context of EHEA developments.

CHAPTER 6:
FUTURE DEVELOPMENTS

Chapter outline

This chapter reflects on how the EHEA and its member countries, higher education institutions, students and stakeholders may develop in the future. It considers elements that are part of the current policy discourse at European and national levels and, therefore, are likely to have an impact. While not being comprehensive in scope (other issues are also likely to develop in the years ahead as policy challenges) these topics are nevertheless worthy of careful scrutiny and may require strategic planning and action from policy-makers and relevant stakeholders.

2018 Paris Communiqué

'We also ask the BFUG to submit proposals for the main priorities for the next decade, in close cooperation with higher education institutions, staff and students, and for the governance of the EHEA' (Paris Communiqué, p. 4).

6.1. Introduction: continuity and change

The world is a very different place in 2020 than it was in 1999, and it is normal to reflect on the framework required for European higher education systems to develop their further cooperation. This is particularly striking in the midst of the COVID-19 pandemic, a reality that has shaken and disrupted all 'normal' behaviour at the level of individuals and groups, institutions and countries. Yet the current crisis has also presented a unique opportunity to highlight the importance of science, as well as rational and evidence-based policy, and clear communication.

We begin a new decade at a point of genuine and unprecedented rupture. It is a time where we have to question where we are going, how we are planning the journey, and even if we are able to move. Whatever its successes and failures have been, the European Higher Education Area provides a framework for this common critical reflection.

The Bologna Process has been built upon voluntary commitment, and upon the notion of policy-making through consensus. Compared to policy-making in other sectors, it stands out as a unique and interesting anomaly: a consensual process, relying largely upon trust and action between a wide range of very different countries, institutions and stakeholders. It has proved to be a force for developing shared understanding of the aspirations that higher education systems should strive to reach, as well as a catalyst for major reforms in a number of policy areas – including degree structures, quality assurance systems, and recognition. On the negative side, it has sometimes proved easier for countries to agree to policy commitments than to implement them.

Many have argued that although the Bologna Process proved to be an effective vehicle for structural reforms in its first decade, it seems to have 'run out of steam' in recent years, and is in need of a new 'vision'. Others point more to the unanticipated complexity arising out of the implementation of major reforms, and to the issues that emerge as countries, higher education institutions, staff and students develop and deepen relationships.

Whatever assessment is made of the last 20 years, it is clear that reforms only benefit the higher education community and society at large when they are fully implemented on the ground. As there is

no EHEA country that can legitimately claim that it has successfully accomplished all policy objectives agreed throughout the Bologna Process, it is clear that one part of the agenda for the coming years must continue to be the strengthening of the implementation of agreed commitments. As stressed in Chapter 4, the social dimension remains a major policy area where the Bologna Process has so far not yet managed to engage sufficient political will to bring about significant change.

At the same time as these 'known' challenges are tackled, the academic community needs to address new challenges that are emerging for European higher education. 'New' issues should be limited in this context to those where a coordinated response is necessary and helpful.

6.2. Values

The distinction between 'old' and 'new' issues for the EHEA to address may not always be helpful. From the beginning of the Bologna Process, there has been an acknowledgement that cooperation is built upon shared fundamental values. There is therefore nothing new about the notion of fundamental values. Indeed, for the greater part of the Bologna Process, fundamental values have been affirmed but otherwise taken for granted as the basis for partnership and cooperation.

However, recent history places this debate in a new context. Scientists and academics, whether working in universities, health systems, pharmaceutical companies or other settings are playing a key role in addressing the response to the challenges created by the COVID-19 pandemic. To do this effectively, the environmental conditions, including the societal value base, needs to be protective and supportive. Had there been no attempt to suppress information about the COVID-19 virus when doctors in China first became aware of it, early measures to contain the spread would have been different. Meanwhile, as the virus has spread globally, some politicians have deliberately distorted information in an attempt to shift responsibility for their own public health failures. Attempts to find solutions to the pandemic – whether in the form of vaccine development or treatments – depend on cooperation and transparency among scientists and academics. Protection of fundamental societal and academic values is therefore currently a condition for finding a path to live and interact together in the future.

The pandemic is certainly not the only catalyst for a broad discussion on the protection and promotion of academic values. In recent years, cases reported by EHEA stakeholder organisations as well as by international network organisations such as the Magna Charta Observatory and Scholars at Risk – organisations whose mission is to promote and enhance academic freedom and institutional autonomy – have pointed to increasing cases both within and outside the EHEA, illustrating that shared values cannot simply be taken for granted. The 2015 Yerevan Communiqué (2015) made a commitment through ministers to 'support and protect students and staff in exercising their right to academic freedom and ensure their representation as full partners in the governance of autonomous higher education institutions' ('[79]). This was further strengthened in the Paris Communiqué (2018) where Ministers made a strong commitment to promoting and protecting fundamental values throughout the EHEA:

> 'Academic freedom and integrity, institutional autonomy, participation of students and staff in higher education governance, and public responsibility for and of higher education form the backbone of the EHEA. Having seen these fundamental values challenged in recent years in some of our countries, we strongly commit to promoting and protecting them in the entire EHEA through intensified political dialogue and cooperation' ([80]).

([79]) Yerevan Communiqué, p. 2.

([80]) Paris Communiqué, p. 1.

The first steps in developing an approach to promoting and protecting these values have been taken through a Task Force established by the BFUG under the auspices of the reporting working group. The Task Force will report through the BFUG to EHEA ministers on progress made so far, and the further work that is required. Whatever the reasons for values being in need of protection and promotion, the Bologna Process has a major challenge ahead in developing this work.

6.3. Sustainable development

Creating a sustainable future is the common, global human challenge that we all face. This is not an abstract agenda, but a concrete reality that we cannot ignore. Higher education institutions can be at the heart of positive societal change, and change must also take place within higher education institutions. Sustainable development issues require reflection and action in each and every higher education institution – from how they are organised and funded, through the content and methods of teaching and research, and how they engage in society.

Higher education has a key role to play in mitigating the impact of climate change and climate-change-related migration – through research, innovation, education and engagement. Higher education institutions need to engage with their local communities to make preparations to adapt to the impact of climate change. The curriculum proposed to students should be adapted to reflect the importance of this topic. Institutions should also be disseminating research-based knowledge about climate-related issues, and encouraging thought and debate on the way we live and work in the future.

Sustainable development cannot be divorced from socio-economic recovery. The current pandemic will leave countries with major economic problems to address, and will affect different groups of society in different ways. We have created a world where inequity has made some people more vulnerable. The current crisis gives us an opportunity to reflect on how this happened, and to change direction. It will be essential for universities to play their part in this agenda globally, at European level and locally. Given their role as knowledge producers, higher education institutions can continue to help create a sustainable future. The Bologna Process also needs to play its role in providing a flexible framework for the development and exchange of policy ideas and practice. Just as the Bologna Process has been associated with degree structures and quality assurance, the coming decade must see it become a platform for sustainable higher education. This means integrating sustainable development concerns into all disciplines at all levels – and developing a supportive environment including green campuses, green mobility, sustainable development partnerships and networks.

6.4. European integration and innovation

The European Higher Education Area has enormous potential for innovation – particularly if it continues to become a genuinely open and inclusive space. Interconnection is essential to meet future challenges, and local and national interests will best be served by autonomous higher education institutions that have the capacity to work beyond national boundaries. Students also need to take advantage of opportunities to benefit from connection to other cultures and to other institutions. For this to happen, higher education institutions will increasingly need to work together with a broad range of institutional and societal partners and to be open and transparent in all aspects of their operations. The European Universities alliances, combining goals of excellence and social inclusion, are pioneers for achieving such novel forms of innovation, cohesion and cooperation among institutions. Their experience should become formative for the wider EHEA.

6.5. Digitalisation

We live in a world of fast-changing digital technology. An immense impact is predicted by scientists and social commentators alike for artificial intelligence, big data, the internet of things and other technologies. Citizens require new skills and competences to live and to work in a digital world. Working with a wide range of online information sources and tools changes working cultures and practice, as well as human relationships. Higher education institutions are part of this phenomenon and are also embracing digital changes. The Paris Communiqué foresees the impact of these developments:

> 'Digitalization plays a role in all areas of society and we recognize its potential to transform how higher education is delivered and how people learn at different stages of their lives. We call on our higher education institutions to prepare their students and support their teachers to act creatively in a digitalized environment' ([81]).

The COVID-19 pandemic has seen rapid progress in switching to digital learning and teaching. There will undoubtedly be many lessons to learn from the experience over the past few months, but it is clear that a big step forward has been taken and even when a full return to normality is possible, the use of digital technologies will no doubt continue and intensify.

The wave of progress in using digital technologies was forced upon us by the pandemic. In the future, however, there will be choices to make and questions of cultural adaptation to address. For example, what will be the appropriate role for digital technologies? How should the human learning and teaching environment relate to the digital environment? How can digital technologies support higher education policy objectives?

One aspect of this changing reality that has become evident during the early months of the pandemic is that digitalisation alone cannot solve issues of inequity. Indeed limited access to technology clearly inhibited learning for people from different societal groups, with disadvantaged communities in both inner city and isolated rural regions being among the most severely affected during the pandemic. The rapid shift to online teaching has increased awareness of the need for mentoring, guidance and support to alleviate problems and prevent drop-out rates from increasing. Working out and targeting support to improve the quality of the learning experience will be a key challenge going forward.

It is important to understand digitalisation issues in the context of equipping individuals for lifelong learning in a fast-moving environment. Higher education institutions will themselves need support – including peer support – in making optimal use of digital technologies for learning and teaching, and helping to develop digital skills more broadly in society.

It is also important to reflect carefully on the way in which online or blended learning may change the nature of a higher education experience and indeed the nature of higher education institutions. Will campuses continue to exist as a main model for the organisation and delivery of higher education in a digital age? Will the kind of facilities found in many higher education institutions today – accommodation, sports facilities, social services etc. – continue to be an integral part of higher education? How will digital learning and teaching impact on public and private funding, including on student support?

Higher education from the student perspective is about more than academic learning. It is also a place and a time to develop social and civic skills, as well as confidence in personality and identity. These social functions of higher education are vitally important in equipping citizens for their future lives – and they cannot be fulfilled adequately online.

([81]) Paris Communiqué, p. 3.

Social inclusion policy with regard to digitalisation also needs to consider a wide range of issues – beyond questions of differentiated access to technology, or the so-called digital divide. Students living in a supportive learning environment are able to benefit from online higher education provision to a far greater extent than those lacking such an environment.

It is also important to recognise and develop digitalisation not as an alternative to internationalisation, but rather as a facilitator of new forms of internationalisation and to simplify participation in mobility. International mobility in a digital age requires new approaches to blending different modes of learning, harnessing tools to ensure secure data exchange and developing new forms of civic engagement and identity. The European Student Card can help solidify this notion of a new European student identity in addition to digitalising all the main components necessary for the organisation of student mobilities and provide a digital single entry point for mobile students to access information and services.

Digitalisation also has an important role to play in advancing policy commitments made at EHEA and EU level. One example is automatic recognition of qualifications, where networking among ENIC and NARIC centres, and strengthening good practice in the use of new digital technologies can help to speed up progress.

Digital tools have a great deal of potential to reinforce both quality education and social inclusion. However, this will not happen automatically, and finding an appropriate role for digital technology will require broad thinking on a range of issues. There is an important role for strategic policy planning at both national and European levels.

6.6. Micro-credentials

While there has been great progress in agreeing common structures for EHEA degree programmes, recent years have seen a growing demand and supply of modularised, short courses at higher education level now commonly referred to as micro-credentials. How will the proliferation of these courses be managed and integrated into higher education systems to the benefit of citizens and society? Can these courses be part of a conception of lifelong learning that genuinely allows individuals to develop skills for the labour market and pursue learning for their own fulfilment?

This issue is closely connected to other potential areas of high priority – particularly digitalisation and the social dimension. One of the main drivers of the development of micro-credentials is that learners and employers appreciate a more flexible, time-efficient and individualised format of higher education programme to enable specific skills or competences to be acquired quickly for particular labour market needs. Digitalisation has strongly facilitated this trend, enabling provision of short courses to be offered to a broad audience.

The concept of micro-credentials is not, however, necessarily technology-dependent. In principle, micro-credentials refer to any form of ‘short courses’. The idea is to restructure content so that smaller units of learning content can be certified and recognised. In theory, micro-credentials have the potential to make education more reactive to labour market needs and individual interests, allowing for flexibility and potentially also supporting learning among under-represented groups. Hence, there is potential to democratise knowledge, and to sustain lifelong learning.

For the Bologna Process, discussion needs to focus on how to make positive use of these trends. The main policy challenges concern quality assurance, and the articulation and alignment with existing degrees. How should such new formats of teaching and learning potentially interact with the higher educational landscape as a whole? On what basis will higher education systems determine the legitimacy of providers of these (online) programmes? How will their quality be assured?

6.7. EHEA in the world

Throughout the lifetime of the Bologna Process, engagement with higher education communities in the rest of the world has been an important ambition. Yet this has often been a difficult process. Partly this is related to the fact that the EHEA is a nebulous concept compared to a national system or a specific higher education institution. Just as members of the European academic community are more likely to consider particular countries and universities as reference points, so too will members of the academic community in different parts of the world relate to national systems, specific institutions or networks of institutions in the EHEA.

Nevertheless, in an increasingly fast-moving global environment, connection and cooperation across and between different world regions is essential, and the EHEA will need to find ways to continue global-level dialogues that are meaningful and engaging for all parties.

Recognition is one aspect of reality where improvement can be made at global level. The same principles now commonly embedded in national legislation as a result of the ratification of the Lisbon Recognition Convention should be applied globally through ratification of the UNESCO Global Recognition Convention. EHEA countries are certainly in a position to provide a global lead in this process. Automatic recognition is now embedded in the new Erasmus Charter for Higher Education (ECHE) to further promote the principle as a standard in Erasmus mobility and monitor the implementation of automatic recognition in credit mobility.

However difficult the process of global-level dialogue, cooperation that is meaningful and engaging for all parties is essential, and the EHEA needs to play a leading role.

6.8. Conclusions

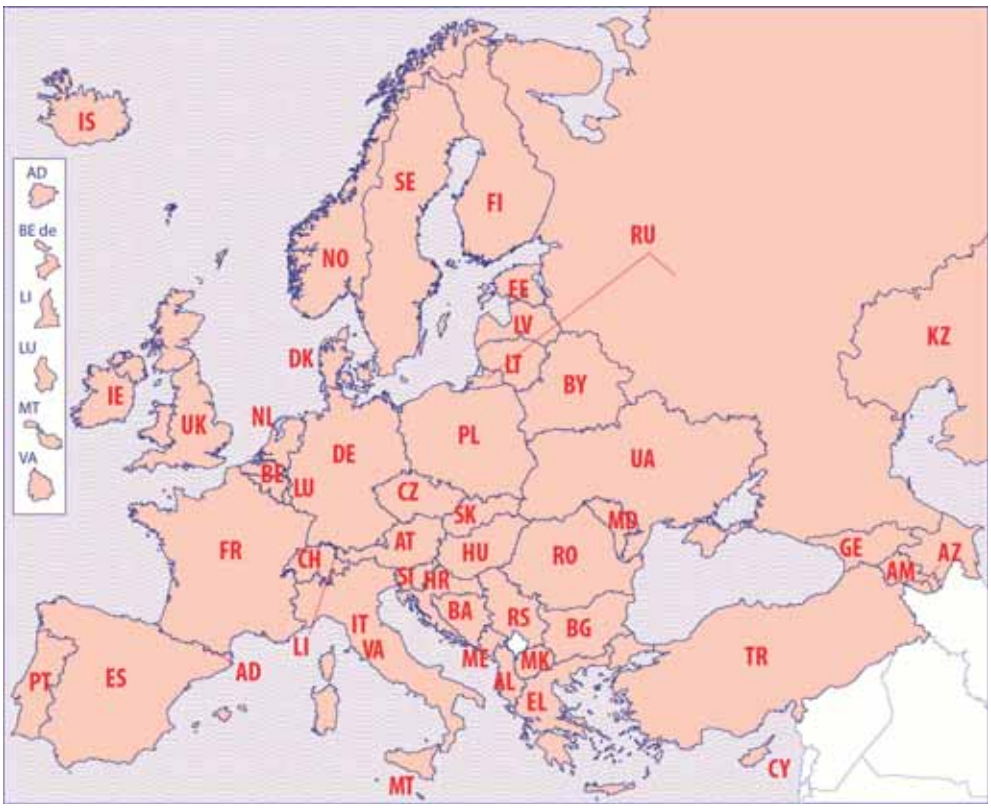
At a time when European cooperation is often threatened from many different sides, it is heartening to observe that the Bologna Process has brought about significant progress not only in higher education reforms but also in trust-building and furthering cooperation across the EHEA. Few working in the higher education sector would contest the proposition that working with a community of policy-makers and stakeholders across national barriers represents the best chance for Europe as well as for the rest of the world. The Bologna Process has demonstrated throughout its history that cross border trust is enhanced as a result of working together to face common challenges. This report and others that have preceded it during the process have demonstrated that it has also provided a dynamic for change and that the EHEA itself has almost doubled in size in 20 years, moving from 29 countries in 1999 to 48 countries today.

The known challenges ahead are many, and there is no doubt that unexpected challenges will continue to emerge. Ongoing and strengthened political support and increasing ownership by all stakeholders is required by EHEA countries to find solutions for common challenges. Whatever the specific areas for action in the coming years, the deepening of this trust-based cooperation provides the greatest hope for the next decade.

GLOSSARY AND METHODOLOGICAL NOTES

I. Codes, abbreviations and acronyms

I.1. Country codes



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

I.2. Abbreviations

:	Data not available
BFUG	Bologna Follow-Up Group
EEA	European Economic Area
EHEA	European Higher Education Area
ENIC	European Network of Information Centres
ESG	Standards and Guidelines for Quality Assurance in the European Higher Education Area
EU	European Union
EUA	European University Association
EU-LFS	EU Labour Force Survey
EU-SILC	European Union Statistics on Income and Living conditions
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
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 ([82])).

Completion

The successful finishing of a study programme (graduation).

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

([82]) 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 15 October 2020].

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 (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, 2015b, p. 68).

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, 2015a, 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., 2017).

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, 2015b, p. 69).

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, 2015b, 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 Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) to provide clear and reliable information on quality assurance agencies operating in Europe ([83]).

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

([83]) For more details on the European Quality Assurance Register for Higher Education (EQAR), see http://www.eqar.eu/ [Accessed 15 October 2020].

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 ([84]).

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.

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 ([85])).

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/Inward mobility

Incoming mobility refers to students that moved (i.e. crossed a national border) to a specified country to study.

([84]) Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

([85]) 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 15 October 2020].

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) ([86]).

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.

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.

Learning outcomes

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, 2015b, p. 72).

Lisbon Recognition Convention (LRC)

The Convention on the Recognition of Qualifications concerning Higher Education in the European Region ([87]) 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,

([86]) Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

([87]) 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 15 October 2020].

when student loans are guaranteed or insured by the government against the risk of default and loss (Salmi and Hauptman, 2006, p. 43).

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 ([88]).

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, 2016, p. 57).

([88]) 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

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 as level 5 in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA) and also at level 5 in the ISCED classification.

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 ([89]).

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/exemptions

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

([89]) 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 15 October 2020].

academic year to 60 credits is often formalised by national legal provisions. In most cases, student 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 1.4, 1.5 and 1.6)

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).

Expenditure on tertiary education (Figures 1.8, 1.9, 1.10 and 1.11)

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).

Full-time equivalent student (Figures 1.9, 1.10 and 1.11)

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 (Figure 4.10)

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/Inward mobility rate (Figures 5.5, 5.6 and 5.7)

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) (Figure 4.11)

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:

1. Legislators, senior officials and managers
2. Professionals
3. Technicians and associate professionals
4. Clerks
5. Service workers and shop and market sales workers
6. Skilled agricultural and fishery workers
7. Craft and related trades workers
8. Plant and machine operators and assemblers
9. Elementary occupations
10. Armed forces ([90])

([90]) For more details on the ISCO classification, see: http://www.ilo.org/public/english/bureau/stat/isco/ [Accessed 15 October 2020].

Mature students (Figures 4.8 and 4.9)

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.

New entrants (Figures 4.1and 4.2)

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).

Outward mobility rate (Figures 5.1, 5.2, 5.3, 5.4, 5.6, and 5.8)

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.

Purchasing power standard (PPS) (Figures 1.10 and 1.11)

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 (Figure 4.9)

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.

IV. Data sources

BFUG data collection

This direct data collection based on an Excel questionnaire aimed at collecting information for the present report. The reference year was the academic year 2018/19. The questionnaires primarily focused on qualitative information, and consisted of several parts covering the following areas:

- 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.

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 covers thirty-four countries (participating countries) providing Eurostat with data from national labour force surveys: the 28 Member States of the European Union (prior to 31 January 2020), three EFTA countries (Iceland, Norway and Switzerland), and three candidate countries, i.e. North 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 ([91]).

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 15 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 ([92]).

([91]) For more details on the EU-LFS, see: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey [Accessed 15 October 2020].

([92]) 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_-_introduction#Main_characteristics_of_EU-SILC [Accessed 15 October 2020].

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 ([93]).

V. Notes on statistical figures

Chapter 1

Figure 1.1: Number of students enrolled in tertiary education by ISCED level, 2016/17

Armenia and **Russia**: Data refer to national students.

Bosnia and Herzegovina, Bulgaria, Estonia, Finland, Greece, Liechtenstein, Lithuania, Montenegro, North Macedonia, Romania and **Serbia**: ISCED 5 not applicable.

Germany (ISCED 8); **Poland** and **Slovenia** (ISCED 7); **United Kingdom** (ISCED 5): Definition differs according to Eurostat database.

Figure 1.2: Percentage change in the number of students enrolled in tertiary education, 2000-2017

Albania: 2000 - Total includes only ISCED 5A (ISCED 5B not applicable and ISCED 6 not available). In 2009, change in the education system according to Bologna structure (short-cycle studies included).

Albania, Andorra, Germany, Luxembourg, North Macedonia, Romania and **Slovenia,** 2000 - Total excludes ISCED 6.

Andorra: 2009 - Doctoral studies introduced in the education system.

Armenia and **Ukraine**: 2000 - Data refer to national students.

Austria: 2010 - Changes in the legislation regarding ISCED 6.

Belgium: 2000 - Data exclude the German-speaking Community; 2017 - ISCED 5 zero or negligible.

Bosnia and Herzegovina: 2000-2010 - Missing data.

Bosnia and Herzegovina, Bulgaria, Estonia, Finland, Greece, Liechtenstein, Lithuania, Montenegro, North Macedonia, Romania and **Serbia**: 2017 - ISCED 5 not applicable.

Croatia, Liechtenstein, and **Switzerland**: 2000 - Missing data. Percentage change refers to the number of students between 2005 and 2017.

Cyprus: 2000 - Due to 2-years compulsory military service for men aged 18-20 some of them are not in education.

Germany: 2005 - Changes in coverage at ISCED 5A; 2009: Changes in the classification at tertiary level.

Georgia: 2000: ISCED 5B not applicable.

Greece and **Spain**: 2005 - Changes in coverage at tertiary level.

Liechtenstein: 2005 - Total includes only ISCED 5A; ISCED 5B not applicable and ISCED 6 zero or negligible. Due to the small size of the country, there is no fully developed education system and many students complete tertiary education abroad.

Moldova and **Serbia**: 2000-2005 - Missing data. Percentage change refers to the number of students between 2010 and 2017.

Montenegro: 2003 - Changes in the law for higher education aligned with the Bologna principles.

Netherlands: 2011: Changes in coverage at all ISCED levels and in methodology at ISCED 6.

Russia: Data refer to national students. 2000-2015 - Missing data.

([93]) 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 15 October 2020].

Figure 1.3: Enrolment rates in tertiary education for the 18-34 years old (% of the total population aged 18-34), 2000 and 2017

Albania: 2000 - Total includes only ISCED 5A (ISCED 5B not applicable and ISCED 6 not available). In 2009, change in the education system according to Bologna structure (short-cycle studies included).

Andorra: 2009 - Doctoral studies introduced in the education system.

Austria: 2010 - Changes in the legislation regarding ISCED 6.

Belarus: Missing data.

Belgium: 2000 - Data exclude the German-speaking Community; 2017 - ISCED 5 zero or negligible.

Bosnia and Herzegovina, Bulgaria, Estonia, Finland, Greece, Liechtenstein, Lithuania, Montenegro, North Macedonia Romania and **Serbia**: 2017 - ISCED 5 not applicable.

Bosnia and Herzegovina, Luxembourg and **Russia** (2000-2015): Missing data

Croatia, Liechtenstein and **Switzerland**: 2000 - Missing data. Percentage change refers to the number of students between 2005 and 2017.

Cyprus: 2000 - Due to 2-years compulsory military service for men aged 18-20 some of them are not in education.

Georgia: 2000: ISCED 5B not applicable.

Germany: 2005 - Changes in coverage at ISCED 5A; 2009: Changes in the classification at tertiary level.

Germany, Romania, Slovenia, North Macedonia, Andorra, Luxembourg and **Albania**: 2000 - Total excludes ISCED 6.

Greece and **Spain**: 2005 - Changes in coverage at tertiary level.

Liechtenstein: 2005 - Total includes only ISCED 5A; ISCED 5B not applicable and ISCED 6 zero or negligible. Due to the small size of the country, there is no fully developed education system and many students complete tertiary education abroad.

Montenegro: 2003 - Changes in the law for higher education aligned with the Bologna principles.

Moldova and **Serbia**: 2000-2005 - Missing data. Percentage change refers to the number of students between 2010 and 2017.

Netherlands: 2011: Changes in coverage at all ISCED levels and in methodology at ISCED 6.

Russia: Data refer to national students.

Figure 1.4: Percentage change in the total number of academic staff (%), 2000 and 2017

Data referring to 2000, 2005 and 2010 cover academic staff at ISCED 1997 levels 5-6. Data referring to 2016 cover academic staff at ISCED 2011 levels 5-8. All data cover all types of higher education institutions (i.e. public, private government dependent and private government independent).

Albania: 2009 - Change in the education system according to Bologna structure (short-cycle studies included).

Andorra, Bosnia and Herzegovina, Denmark, Iceland, Kazakhstan and **Russia**: Missing data.

Austria: 2006 - Changes in methodology. 2007: Changes in classification.

Austria, Liechtenstein and **Luxembourg**: 2000-2005 - Missing data.

Belgium: 2000 - Data exclude the German-speaking Community.

Croatia, Greece, Ireland, Netherlands, Portugal, Switzerland and **Turkey**: 2000 - Missing data. Percentage change in the academic staff between 2005 and 2017.

France: 2017 - Definition differs.

Georgia and **Serbia**: Data cover full-time programmes only.

Greece: 2005 - Changes in coverage.

Montenegro: 2003 - Changes in the law for higher education aligned with the Bologna principles. From 2009 full time programs are only covered.

Figure 1.5: Percentage of academic staff aged 50 and over (%), 2000 and 2017

Data referring to 2000, 2005 and 2010 cover academic staff at ISCED 1997 levels 5-6. Data referring to 2016 cover academic staff at ISCED 2011 levels 5-8. All data cover all types of higher education institutions (i.e. public, private government dependent and private government independent).

Albania: 2009 - Change in the education system according to Bologna structure (short-cycle studies included).

Albania, Andorra, Bosnia and Herzegovina, Croatia, Estonia, Kazakhstan, Liechtenstein, Moldova and **Russia**: 2000-2010 - Missing data.

Armenia, Azerbaijan, Denmark, Georgia, Ireland, Montenegro, Serbia and **Ukraine**: Missing data.

Austria: 2006 - Changes in methodology. 2007: Changes in classification.

Belgium: 2000 - Data exclude the German-speaking Community.

Belgium and **Turkey**: Missing data 2000 and 2005.

Czechia, Iceland and **Poland**: 2017 - Missing data.

France: 2017 - Definition differs.

Germany, Norway, Slovakia, Switzerland and **United Kingdom**: 2000 - Missing data. Percentage change in the academic staff between 2005 and 2017.

Georgia and **Serbia**: Data cover full-time programmes only.

Greece: 2005 - Changes in coverage.

Montenegro: 2003 - Changes in the law for higher education aligned with the Bologna principles. From 2009 full time programs are only covered.

Figure 1.6: Percentage of female academic staff (%), 2000 and 2017

Data referring to 2000, 2005 and 2010 cover academic staff at ISCED 1997 levels 5-6. Data referring to 2016 cover academic staff at ISCED 2011 levels 5-8. All data cover all types of higher education institutions (i.e. public, private government dependent and private government independent).

Albania: 2009 - Change in the education system according to Bologna structure (short-cycle studies included).

Andorra, Bosnia and Herzegovina, Kazakhstan and **Russia**: 2000-2010 - Missing data.

Austria: 2006 - Changes in methodology. 2007: Changes in classification.

Austria, Belarus, Liechtenstein, Luxembourg and **Serbia**: Missing data 2000 and 2005. Percentage change in the academic staff between 2010 and 2017.

Belgium: 2000 - Data exclude the German-speaking Community.

Croatia, Greece, Georgia, Ireland, Moldova, Netherlands, Poland, Portugal, Switzerland and **Turkey**: 2000 - Missing data. Percentage change in the female academic staff between 2005 and 2017.

Denmark and **Ukraine**: Missing data.

France: 2017 - Definition differs.

Georgia and **Serbia**: Data cover full-time programmes only.

Greece: 2005 - Changes in coverage.

Iceland: 2017 - Missing data.

Montenegro: 2003 - Changes in the law for higher education aligned with the Bologna principles. From 2009 full time programs are only covered.

Figure 1.8: Annual public expenditure on tertiary education as a % of GDP (including R&D), 2004 and 2016

Andorra: Expenditure cover scholarships and other grants including students studying abroad.

Andorra, Kazakhstan and **Luxembourg**: 2004-2009 - Missing data.

Azerbaijan, Belarus, Bosnia and Herzegovina, Moldova, Montenegro, North Macedonia, Russia and **Ukraine,**: Data refer to 2009 instead of 2004.

Belgium: Expenditure in independent private institutions not included for all years. 2004: Data exclude the German-speaking Community.

Croatia Denmark, Greece and **Liechtenstein**: 2016 - Missing data.

Cyprus: 2004 - Expenditure include financial aid to students studying abroad.

Greece: 2004 - Student loans from public sources are not available.

Iceland: 2004 - Expenditure for ancillary services and R&D expenditure are not available.

Ireland and **Spain**: 2004 - Expenditure for ancillary services is not available.

Liechtenstein: Total government and R&D expenditures are not available because tertiary education is mainly provided in schools in Switzerland and Austria. Liechtenstein participates in educational institutions abroad through compensatory payments and other compensatory measures in order to guarantee access to students.

Lithuania: 2004 - Public transfers to other private entities are not available.

Luxembourg: 2004 - Expenditure for ancillary services and public transfers to other private entities are not available.

Malta: Break in series in 2005.

Portugal: 2004 - Expenditure at local level of government is not available. Imputed retirement expenditure is not available. Student loans from public sources are not available.

Serbia: 2016 - Central and local government expenditure is included in all (government) levels consolidated. Total and capital expenditure from government sources to public institutions ISCED 5 is included in ISCED 6-8. Expenditure in public and private institutions: ISCED 5 is included in ISCED 6-8.

United Kingdom: 2015 - Break in series due to change in methodology. 2000-2010: Adjustment of GDP to the financial year that is running from 1 April to 31 March.

Figure 1.9: Annual public expenditure on public and private tertiary education institutions per full-time equivalent student in euro, 2014-2016

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Kazakhstan, Liechtenstein, Moldova, Montenegro, North Macedonia, Russia, and **Ukraine** : Countries not included in the analysis.

Denmark, Greece and **Serbia**: 2016 - Missing data.

Greece: Definition differs.

United Kingdom: 2015 - Break in series due to change in methodology.

Figure 1.10: Percentage change in the annual public and private tertiary education institutions in PPS per full-time equivalent student, 1999 and 2016

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Liechtenstein, Moldova, Montenegro, North Macedonia, Russia, Switzerland and **Ukraine**: Not included in the analysis.

Belgium: Expenditure in independent private institutions not included for all years. 1999 - Data exclude the German-speaking Community. Imputed retirement expenditure is not available.

Belgium, France, Iceland, Malta, Portugal, Slovakia, and **United Kingdom**: 1999 - Definition differs.

Croatia, Denmark and **Slovakia**: 2016 - Missing data.

Croatia, Estonia and **Romania**: 1999-2004 - Missing data.

Greece, Hungary, Italy, Lithuania and **Slovenia**: 1999 - Missing data.

Lithuania: 1999 - Public expenditure in public and private educational institutions.

Luxembourg, Serbia and **Turkey**: 1999-2009 - Missing data.

Malta: 1999 - Full-time equivalent enrolment is estimated by assuming that it corresponds to full-time enrolment and half of the part-time enrolment.

Portugal: 1999 - Expenditure at local level of government is not available. Full-time equivalent enrolment is estimated by assuming that it corresponds to full-time enrolment and half of the part-time enrolment. Imputed retirement expenditure is not available.

Slovakia: 1999 - Expenditure of ISCED 5B is included under upper secondary level of education.

United Kingdom: 2000-2011 - Adjustment of educational expenditure of financial year, that is running from 1 April to 31 March, to the calendar year.

Figure 1.11: Annual public and private expenditure on public and private education institutions on tertiary education in PPS per full-time equivalent student relative to the GDP per inhabitant in PPS, 2004, 2014 and 2016

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Moldova, Montenegro, North Macedonia, Russia and **Ukraine**: Not included in the analysis.

Austria, Iceland, Norway, Poland and **Portugal**: 2004 - Payments from international agencies and other foreign sources to educational institutions are not available.

Belgium: Expenditure in independent private institutions not included for all years. 2004: Data exclude the German-speaking Community.

Croatia: 2004 - Capital expenditure from private educational institutions is not available.

Croatia and **Serbia**: 2004, 2016 - Missing data.

Denmark: 2014-2016 - Missing data.

Denmark, Norway and **Portugal**: 2004 - Payments from other private entities to educational institutions are not available.

Estonia: 2004 - Missing data.

Iceland and **United Kingdom**: 2004 - Expenditure for ancillary services is not available.

Ireland and **Spain**: 2004 - Expenditure for ancillary services is not available.

Luxembourg, Romania and **Turkey**: 1999 - Missing data.

Portugal: 2004 - Imputed retirement expenditure is not available. Expenditure at regional and local levels of government is not available.

Slovakia: 2004 - Expenditure of ISCED 5B is included under upper secondary level of education. 2016 - Missing data.

United Kingdom: 2004 - Adjustment of educational expenditure of financial year, that is running from 1 April to 31 March, to the calendar year.

Chapter 4

Figure 4.1: Relationship between the educational background of first-cycle new entrants (ISCED 6) and the educational attainment of their parents' cohort (population aged 45-64), 2015 and 2018

The educational attainment of parents is known only if the person is still living in the same household with their parents. For this indicator, the educational level is collected only from 2003 and the highest level of educational attainment of parents by ISCED 11 is available from 2014 onwards.

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Denmark, Finland, Georgia, Greece, Iceland, Kazakhstan, Liechtenstein, Moldova, Norway, Russia, Sweden, Switzerland and **Ukraine**: Not included in the analysis.

Austria, Croatia, Poland and **Slovenia**: 2015 - Unreliable data for new entrants with low educational attainment.

Austria, Croatia, Cyprus, Czechia and **Poland**: 2018 - Unreliable data for new entrants with low educational attainment.

Luxembourg: 2015 - Data not reliable for proportions of the population aged 45-64 with different educational attainment levels. Break in series

Figure 4.2: Percentage of women among new entrants in tertiary education, 2005 and 2017

Albania: 2009 - Change in education system according to Bologna structure (short-cycle studies included). From 2015, data on ISCED 8 are not available.

Albania and **Liechtenstein**: 2005 - Data on ISCED 6 are not available.

Andorra: 2009 - Doctoral studies introduced.

Armenia, Russia and **Ukraine**: 2005 - Data refer to national students.

Belarus, Georgia, Moldova and **Montenegro**: Not included in the analysis.

Belgium: 2017: Data on ISCED 5 are not available. From 2014 onwards data on ISCED 8 are not available. Before 2012 data exclude the German-speaking Community and students in private independent institutions. From 2013 onwards, data on ISCED 5 refer to the Flemish Community only.

Belgium, Ireland and **Poland**: Until 2012 - Data on ISCED 6 are not available.

Bosnia and Herzegovina, Finland, Liechtenstein and **North Macedonia**: 2015-2017 - ISCED 5 is not applicable.

Bulgaria: 2017: Data on ISCED 6 and 7 are estimated.

Bulgaria, Greece, Estonia, Lithuania and **Romania**: 2013-2017 - ISCED 5 is not applicable.

Croatia and **Italy**: 2005: Data on ISCED 5B are not significant.

Cyprus: Due to a two-year compulsory military service for men aged 18-20, some of them are not in education.

Cyprus, Liechtenstein, Luxembourg and **Malta**: Data refer to the country's domestic educational activity (i.e. within its own territory). Students that study abroad are not included, on the contrary they are considered as foreigner students in the country where they are enrolled.

Finland: Until 2012 - Not applicable.

Finland, Germany and **Netherlands**: Until 2010 - Data on ISCED 6 are not available.

Latvia, Portugal and **Serbia**: 2005 - Missing data. Data for 2010 are used instead.

Liechtenstein: Due to the small size, there is no fully developed education system and many students complete education abroad. Short cycle studies (ISCED 5B-1997/ISCED 5-2011) are not applicable.

Malta: Until 2004 - Data on ISCED 6 are not available.

Netherlands: 2004-2005 - Not applicable. 2011 - Change in coverage (private education included). 2016: Change in methodology at ISCED 6.

North Macedonia: Until 2005 - Data on ISCED 6 are not available.

Norway, Slovenia, Spain, Sweden, Switzerland, Slovakia, Turkey and **United Kingdom**: Until 2003 - Data on ISCED 6 are not available.

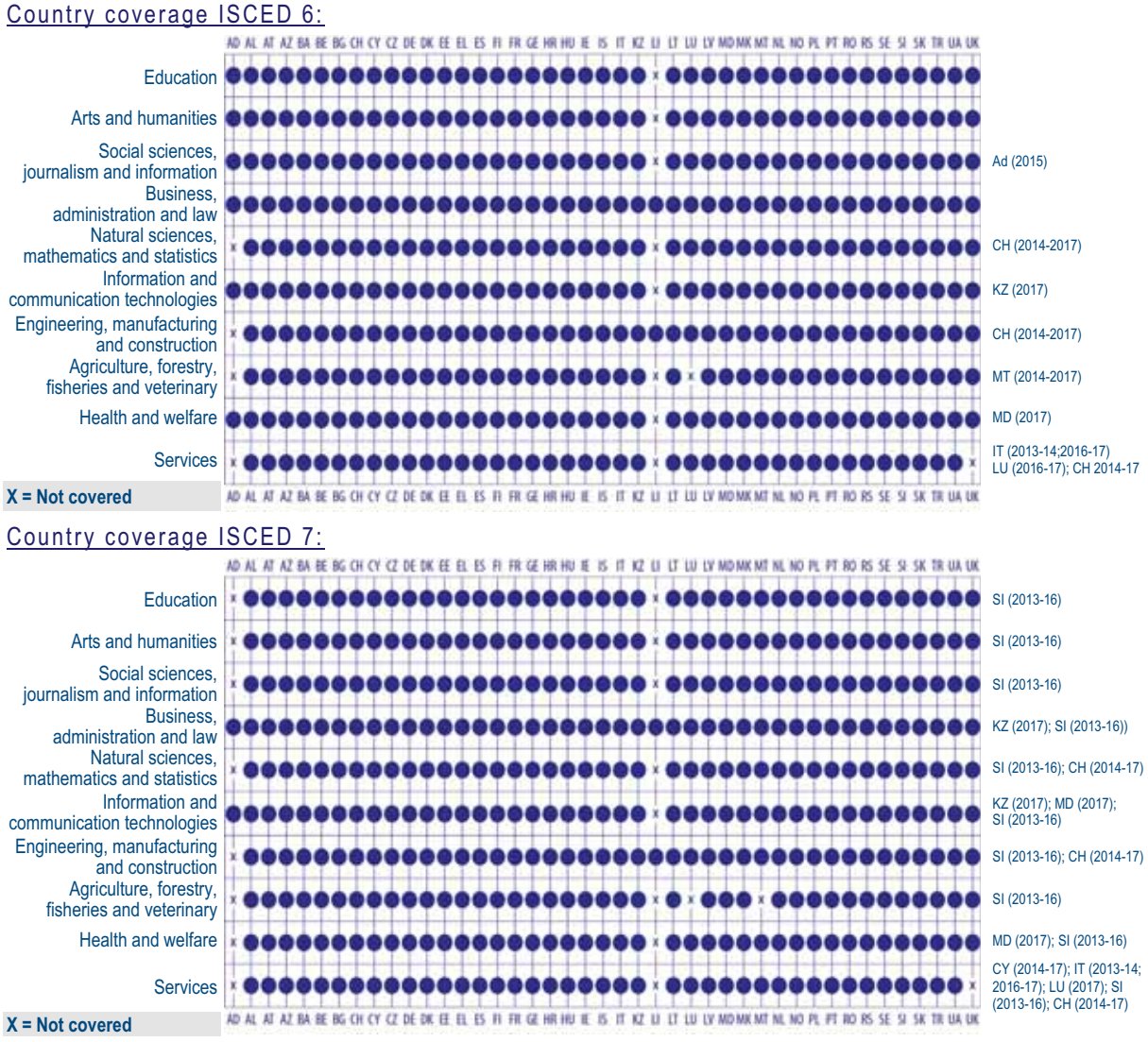
Poland: Difference between ISCED 5 and national educational levels classification since schools on ISCED 5 are classified as post-secondary schools. Students on ISCED 6, ISCED 7 and ISCED 8 can study on different fields of education. Students are presented as many times as their studying fields of education. In Poland, student double counting will be eliminated as soon as individual database is developed.

Portugal: 2013-2014 - ISCED 5 is not applicable. From 2016, the foreign students in international exchange programmes that undertake part of their studies at a Portuguese HEI, but are credited at their home institution, are excluded from enrolment statistics.

Romania: 2012 - ISCED 5B is not applicable. Until 2002 - Data on ISCED 6 are not available.

Serbia: Part-time educational programs are not available. Since 2014 ISCED 5 studies are available but not applicable yet.

Figure 4.3: 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), 2017



Armenia, Belarus, Montenegro and **Russia**: Not included in the analysis.

Poland: 2017 - Change in the national methodology for data collection of enrolments at ISCED 6-8.

Figure 4.4: Percentage of female graduates in bachelor and master programmes by level of education, 2000 and 2017

Data source: Calculated based on Eurostat, [educ_uoe_grad03], [educ_grad4].

Albania: 2000 - ISCED 6 not available.

Andorra: ISCED 6 is not applicable. First doctorate graduates from 2015

Armenia, Croatia, Czechia, Georgia, Greece, Netherlands (ISCED6) **Poland** and **Romania** (ISCED6): 2000 - Missing data. Data for 2005 are used instead.

Armenia, Azerbaijan and **Ukraine**: 2000 - Data include national graduates only.

Austria and **Germany**: 2017 - Data on 'Government dependent private institutions' and 'Independent private institutions' not available; they are included in 'Total: Private institutions'.

Belarus: Not included in the analysis.

Belgium: 2000 - Data exclude the German speaking community and students in private independent institutions.

Bosnia and Herzegovina, Liechtenstein, Moldova, Serbia and **Ukraine**: 2000 - Data not available.

Cyprus: From 2012 and backwards, due to a two-year compulsory military service for men aged 18-20, some of them are not in education.

North Macedonia: 2000 - ISCED 6 not available.

Slovenia: 2016 - Strong increase of the number of graduates at ISCED 6-8 due to the entry into force of Bologna legislation.

Figure 4.5: Participation rates in tertiary education among persons aged 18-29, foreign-born, native-born and total population, 2005 and 2018

Break in series - variables relating to participation in education and to highest completed education were completely revised by Regulation (EC) No 2104/2002. As a result, the comparability with previous years, especially with regard to participation in education is limited. Most countries introduced the respective changes in 2003, 2004 or 2005.

Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, Georgia, Kazakhstan, Moldova, Russia and **Ukraine**: Not included in the analysis.

Andorra, Bulgaria, Czechia, Germany, Croatia, Iceland, Ireland, Liechtenstein, Malta, Norway and **Serbia**: 2005 - Missing data on foreign-born. Data provided for 2010 are used instead.

Andorra, Bulgaria, Czechia, Croatia, Iceland, Liechtenstein, Norway and **Serbia**: 2005 - Missing data on native-born. Data for 2010 are used instead.

Andorra, Czechia, Iceland, Liechtenstein, North Macedonia, Norway, Serbia and **Turkey**: 2005 - Missing data on total population aged 18-29. Data provided for 2010 are used instead.

Bulgaria (2018); **Estonia** (2005); **Latvia** (2005); **Lithuania** (2018); **Montenegro** (2018); **Poland** and **Slovenia** (2005): Unreliable data for foreign-born.

France, Netherlands, Norway and **Spain** (since 2006); **Germany** (2006-2011); **Finland** (since 2007); **Bulgaria** and **United Kingdom** (since 2008); **Switzerland** (since 2010); **Czechia** (since 2011); **Luxembourg** (since 2015); **Belgium** and **Latvia** (since 2017): Break in series - Under Regulation (EC) No 2257/2003 a set of specific variables, referred to as structural variables, need to be surveyed only as annual averages with reference to 52 weeks rather than as quarterly averages.

Germany: Until 2016 data for migrants are not available.

Iceland (2018); **Montenegro** (2005); **North Macedonia** (2005); **Slovakia** and **Romania**: Unreliable and not publishable data.

Malta (2005); **Ireland** (2007); **Cyprus** (2009); **Bulgaria**, **Germany**, **Poland** and **Romania** (2010); **Czechia** and **Slovakia** (2011): Break in series due to back data revisions of population figures triggered by 2001 and 2011 census revisions.

Figure 4.6: Percentage of students enrolled in tertiary education, 30 or more years old, 2000 and 2017

Albania: Until 2005 ISCED 5B is not applicable (cover 5A only). 2009: Change in education system according to Bologna structure (short-cycle studies included). From 2015 data on ISCED 8 are not available.

Albania, Croatia, Cyprus, Georgia, Liechtenstein and **Switzerland**: 2000 - Missing data. Data for 2005 are used instead.

Albania (2005); **Romania** (until 2002); **Slovenia** (until 2003); **Germany** (until 2010): Data on ISCED 6 are not available.

Andorra: Until 2005 ISCED 6 is not applicable. Doctoral studies introduced in 2009.

Armenia and **Belarus**: Not included in the analysis

Belgium: Before 2012, data exclude the German speaking-Community and students in private independent institutions. From 2013 onwards, data on ISCED 5 refers to the Flemish Community only. In 2013 and 2015, data on private independent institutions are included at ISCED 6 and 7.

Bulgaria, Estonia, Greece, Lithuania and **Romania** (2013-); **Bosnia and Herzegovina, Finland, Liechtenstein, Montenegro, North Macedonia, Portugal** and **Russia** (2015-): ISCED 5 is not applicable.

Croatia and **Ireland**: 2013 - Data on ISCED 5 are not available.

Cyprus: Due to 2 years compulsory military service for men aged 18-20, some of them are not in education.

Cyprus, Liechtenstein, Luxembourg and **Malta**: Data refer to the country's domestic educational activity (i.e. within its own territory). Students that study abroad are not included, on the contrary they are considered as foreigner students in the country where they are enrolled.

Cyprus (2000); **Romania** (until 2002); **Montenegro** and **North Macedonia,** (until 2005); **Slovenia** (until 2004); **Germany** (until 2010): Data on ISCED 6 are not available.

Georgia (until 2010): ISCED 5B is not applicable.

Georgia and **Montenegro** (after 2009) and **Serbia**: Part-time educational programs are not applicable.

Germany: 2005 - Change in coverage at ISCED 5A.

Greece: 2000 - Unreliable data. Data provided for 2005 are used instead. 2005 - Change in coverage at tertiary level. 2017 - Difference between starting of the school year and year of birth (p. ex for 2015/16, a student born in 2009 is 6 years old).

Hungary and **Poland**: 2017 - Age distribution is estimated at all ISCED levels (from 30 years onwards).

Ireland and **Spain** (2013), **Iceland** (2016): Data on 30-34 are not available.

Italy: 2013-2015 - Data by age at ISCED level 5-8 are provisional.

Liechtenstein: Due to the small size, there is no fully developed education system and many students complete education abroad. Short cycle studies (ISCED 5B-1997/ISCED 5-2011) are not applicable.

Luxembourg: Until 2002 ISCED 6 is not applicable. 2006: Data cover 5A only.

Montenegro: 2003 -Changes in the law for higher education aligned with the Bologna principles.

Netherlands: 2011 - Change in coverage (private education included). 2016: Change in methodology at ISCED 6.

North Macedonia: 2008 - Break in series due to changes in the legislation.

Poland: Difference between ISCED 5 and national educational levels classification since schools on ISCED 5 are classified as post-secondary schools. Students on ISCED 6, ISCED 7 and ISCED 8 can study on different fields of education. Students are presented as many times as their studying fields of education. In Poland student double counting will be eliminated as soon as individual database is developed.

Portugal: From 2016, the foreign students in international exchange programmes that undertake part of their studies at a Portuguese HEI, but are credited at their home institution, are excluded from enrolment statistics.

Romania: 2010 - Changes in classification at tertiary level.

Russia: Since 2018 ISCED 5 is not considered part of higher education and ISCED 8 is added as the last cycle of higher education.

Russia and **Ukraine** - **2000**: Data refer to national students.

Serbia: Since 2014, ISCED 5 is applicable but not in place.

Slovakia: 2013, 2015 - Data on ISCED 7 are not available. 201 - Data on ISCED 6 by age include ISCED 7.

Figure 4.7: Percentage of persons with tertiary education, by age group, 2005 and 2018

Break in series - variables relating to participation in education and to highest completed education were completely revised by Regulation (EC) No 2104/2002. As a result, the comparability with previous years, especially with regard to participation in education is limited. Most countries introduced the respective changes in 2003, 2004 or 2005.

Andorra, Liechtenstein, Montenegro, Serbia and **Turkey**: 2005 - Missing data. Data provided for 2010 are used instead.

Armenia, Azerbaijan, Belarus, Georgia and **Russia**: Not included in the analysis.

Austria (2006, 2014); **Belgium (**2008, 2014, 2018); **Bulgaria** (2006, 2010, 2014); **Croatia** (2010, 2014); **Cyprus** and **Greece** (2009, 2014); **Czechia, Portugal** (2011, 2014); **Denmark** (2007, 2014, 2016, 2017); **France** (2013, 2014); **Ireland** (2007, 2014, 2017); **Luxembourg** (2007, 2009, 2014, 2015); **Malta** (2011, 2014); **Netherlands** (2011, 2013, 2014); **Sweden** (2005, 2006, 2014); **United Kingdom** (2010, 2011, 2014): Break in series.

Austria, Italy and **Malta** (2004); **Germany** (2005); **North Macedonia** (2006); **Czechia, Montenegro** (2010); **Turkey** (2014); **Serbia** (2015): Break in series - transition to a quarterly continuous survey.

Estonia, Finland, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Norway, Poland, Romania, Slovenia, Slovakia, Spain and **Switzerland**: 2014 - Break in series.

Iceland (2006); **Luxembourg** (2016, 2017): Unreliable data in all age groups.

Liechtenstein: 2018 - Missing data. Data provided for 2015 are used instead.

Malta (2005); **Ireland** (2007); **Cyprus** (2009); **Bulgaria, Germany, Poland** and **Romania** (2010); **Czechia** and **Slovakia** (2011): Break in series - 2011 census revision.

Moldova: Estimates of population size are based on resident (legal or registered) population.

United Kingdom: Until 2017 unreliable data for 55-64 age group.

Figure 4.8: Adults (30-64) who attained their tertiary education degree during adulthood (aged 30-64) as a percentage of all adults (30-64), 2005 and 2018

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Greece, Liechtenstein, Russia and **Ukraine**: Not included in the analysis.

Austria, Italy and **Malta** (2004); **Germany** (2005); **North Macedonia** (2006); **Montenegro** and **Switzerland** (2010); **Turkey** (2014); **Serbia** (2015): Break in series - transition to a quarterly continuous survey.

Czechia, Serbia and **Turkey**: 2005 - Missing data. Data for 2010 are used instead.

Denmark and **Ireland**: 2016 - Break in series.

Malta (2005); **Ireland** (2007); **Cyprus** (2009); **Bulgaria, Germany, Poland** and **Romania** (2010); **Czechia** and **Slovakia** (2011): Break in series due to back data revisions of population figures triggered by 2001 and 2011 census revisions.

Montenegro and **Serbia**: 2005 - Missing data.

Figure 4.9: Students enrolled as part-timers in tertiary education, by country and age, (%), 2013 and 2017

Albania, Andorra, Azerbaijan, Kazakhstan and **Ukraine**: 2013 - Missing data. Data for 2010 are used instead.

Albania and Azerbaijan: 2017 - Unreliable data. Data for 2015 are used instead.

Armenia, Austria, Belarus, Czechia, France, Georgia, Greece, Italy, Moldova, Montenegro, Russia, Serbia and **Turkey,**: Not included in the analysis.

Austria, Czechia, France, Italy, Russia and **Turkey**: Part time programmes are not applicable**.**

Liechtenstein and **North Macedonia**: Eurostat data.

Figure 4.10: Ratio of median annual gross income of employees with tertiary education to the median annual gross income of employees with lower levels of education, 2010 and 2018

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Iceland, Kazakhstan, Liechtenstein, Norway, Russia, Switzerland, Turkey and **Ukraine**: Not included in the analysis.

Ireland, France, North Macedonia and **Ukraine**: Data for 2017 are used instead of 2018.

Montenegro: Data for 2015 are used instead of 2018.
Serbia: Data for 2015 are used instead of 2010.

Figure 4.11: Distribution of people with tertiary education 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, 2000 and 2018

Albania , Armenia and **Belarus**: Data available for 2018 only.
Andorra, Montenegro, Serbia and **Turkey** (2000): Missing data. Data for 2010 are used instead.
Azerbaijan, Bosnia and Herzegovina, Liechtenstein and **Russia**: Not included in the analysis.
Croatia, Georgia, Kazakhstan, Luxembourg, Malta, North Macedonia and **Ukraine**: 2000 - Missing data. Data for 2005 are used instead.

Chapter 5: Internationalisation

Data of the degree mobility component of the learning mobility benchmark are available from 2015, referring to the academic year 2012/13. The first data on graduates who had a 'credit mobility' stay throughout the cycle of study were released in mid-2018, referring to the academic year 2015/16.

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, Brazil, Chile, Colombia, the United States, Japan and New Zealand were considered due to issues with data availability and quality.

Figure 5.1: Outward (degree and credit) mobility rate of graduates by country of origin, 2016/17, (%)

Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Estonia, Georgia, Ireland, Kazakhstan, Moldova, North Macedonia, Poland, Russia, Turkey and **Ukraine**: No data available for credit mobility.
Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Estonia, Iceland, Ireland, Kazakhstan, Moldova, North Macedonia, Poland ,Slovakia, Ukraine (derogation till end of 2018) and **Turkey**: No data available on outward credit mobility.
Albania , Czechia, Luxembourg, Moldova and **Slovakia**: Missing data for ISCED 5.
Andorra, Albania, Bosnia and Herzegovina and **Bulgaria** (up to 2015); **Croatia** and **Czechia** (until 2016); **Georgia, Greece, France, Hungary, Italy, Kazakhstan, Luxembourg** and **Malta** (until 2016); **Moldova** and **North Macedonia** (2015-2018); **Netherlands, Russia, Serbia, Slovakia, Sweden, Turkey** and **Ukraine**: The criteria used to define mobile graduates is citizenship.
Armenia: Missing data for ISCED 7 and 8.
Azerbaijan, Liechtenstein and **North Macedonia** (2000-2010); **Estonia, Ireland, Spain** and **United Kingdom**: The criteria used to define mobile graduates is the country of usual residence.
Belarus, Georgia, Montenegro, Liechtenstein and **Russia**: Missing data.
Belgium, Denmark, Croatia, Cyprus (after 2016); **Austria, Finland, Iceland, Latvia, Lithuania, Malta, Norway, Poland,**
Belgium, Denmark, Greece, Spain and **Netherlands**: Missing data for ISCED 8.
Belgium (ISCED 5); **Spain** (ISCED 8); **Poland** (ISCED 5 and 8): No inward degree mobility data, implying a potential underestimation of outward degree mobility from other countries.
Bulgaria, Greece, Finland, Lithuania and **Romania**: ISCED 5 not applicable.
Czechia, Croatia, Hungary, Italy and **Slovenia**: Data on graduates with credit mobility who were not degree mobile is missing; total graduates with credit mobility is used instead.
Portugal, Romania, Slovenia and **Switzerland**: The criteria used to define mobile students is the country of upper secondary diploma.
Serbia: The criteria used to define credit mobile graduates is that the minimum length of stay in the destination country should be at least 3 months in a row (or alternatively 15 ECTS credits).

Figure 5.2: Outward degree and credit mobility of graduates within the EHEA, by country of origin and level of educational attainment, 2016/17, (%)

Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Estonia, Georgia, Iceland, Ireland, Kazakhstan, Liechtenstein, Moldova, Montenegro, North Macedonia, Poland, Russia, Slovakia, and **Ukraine**: Missing data.
Andorra: Data for ISCED 5, 7 and 8 are not presented since they cover only degree mobility.
Bulgaria, Greece, Finland, Lithuania and **Romania**: ISCED 5 not applicable.
Czechia, Luxembourg and **Norway**: Data for ISCED 5 are not presented since they cover only degree mobility.
Denmark, Germany, Greece, Netherlands and **Spain**: Data for ISCED 8 are not presented since they cover only degree mobility.
Italy, Switzerland and **Serbia**: Zero or not significant data on credit mobility for ISCED 5.

Figure 5.3: Outward credit mobility rate – tertiary mobile students from the EHEA studying in the country as a percentage of the total number of students enrolled, by country of destination and level of educational attainment, 2016/17, (%)

Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Estonia, Iceland, Ireland, Kazakhstan, Moldova, North Macedonia, Poland, Slovakia, Turkey and **Ukraine**: No information on outward credit mobility available. No inward degree mobility data available for SI by country of origin; this implies a potential underestimation of outward degree mobility from other countries. No information on EHEA-origin degree mobile graduates who graduated in the US, which implies potential underestimation for some EHEA Member States.

Czechia, Croatia, Hungary, Italy and **Slovenia**: Data on graduates with credit mobility who were not degree mobile is missing; total graduates with credit mobility is used instead.

Figure 5.4: Outward degree mobility of graduates within the EHEA, by country of origin and level of educational attainment, 2016/17, (%)

Andorra: Data for ISCED 7 and 8 are not available.

Armenia: Missing data for ISCED 7 and 8.

Belarus, Estonia, Iceland, Georgia, Liechtenstein and **Montenegro**: Missing data.

No information on EU-origin degree mobile graduates who graduated in the United States, which implies potential underestimation for some EU Member States.

Belgium, Denmark, Greece, Spain and **Netherlands**: Missing data for ISCED 8.

Belgium (ISCED 5); **Spain** (ISCED 8); **Poland** (ISCED 5 and 8): No inward degree mobility data, implying a potential underestimation of outward degree mobility from other countries.

Bulgaria, Estonia, Finland, Greece, Lithuania, North Macedonia and **Romania**: ISCED 5 not applicable.

Poland: Missing data for ISCED 5 and 8.

Slovenia: No inward degree mobility data available by country of origin.

Figure 5.5: Incoming degree mobility rate per level of educational attainment within the EHEA, 2017

Albania, Andorra, Bosnia and Herzegovina and **Bulgaria** (up to 2015); **Czechia** and **Croatia** (until 2016); **France, Georgia, Greece, Hungary, Italy, Kazakhstan, Luxembourg** and **Malta** (until 2016); **Moldova** and **North Macedonia** (2015-2018); **Netherlands, Russia, Serbia, Slovakia, Sweden, Turkey** and **Ukraine**: The criteria used to define mobile graduates is the citizenship.

Albania, Czechia, Croatia, Moldova, Poland and **Germany,** (ISCED 5); **Armenia** (ISCED 7, 8); **Ukraine** (ISCED 5, 7, 8); **Azerbaijan** (ISCED 8) and **Russia** (ISCED 5, 8): Mobile students are considered to be zero or not significant.

Azerbaijan, Liechtenstein and **North Macedonia** (2000-2010); **Estonia, Ireland, Spain** and **United Kingdom**: The criteria used to define mobile graduates is the country of usual residence.

Belarus, Montenegro and **Slovenia**: Missing data.

Belgium, Croatia, Cyprus and **Denmark,** (after 2016); **Austria, Finland, Iceland, Latvia, Lithuania, Malta, Norway, Poland, Portugal, Romania, Slovenia** and **Switzerland**: The criteria used to define mobile students is the country of upper secondary diploma.

Bosnia and Herzegovina, Bulgaria, Estonia, Finland, Greece, Liechtenstein, Lithuania, Moldova, North Macedonia, Romania, Serbia, and **Russia**: ISCED 5 not applicable.

Georgia: No data available broken down by ISCED level.

Germany (ISCED 8) and **Netherlands** (ISCED 5): Mobile students are not available.

Germany (ISCED 8); **Poland** and **Slovenia** (ISCED 7); **United Kingdom** (ISCED 5) and **Switzerland**: Definition differs.

Germany and **Russia**: Data for ISCED 8 not available.

Figure 5.6: Balance as a measure of the attractiveness of the education system of the country at tertiary education level (mobility flows within and outside EHEA), 2016/17

Albania, Andorra, Bosnia and Herzegovina and **Bulgaria** (up to 2015); **Croatia** and **Czechia** (until 2016); **Georgia, Greece, France, Hungary, Italy, Kazakhstan, Luxembourg** and **Malta** (until 2016); **Moldova** and **North Macedonia (**2015-2018); **Netherlands, Russia, Serbia, Slovakia, Sweden, Turkey** and **Ukraine**: The criteria used to define mobile graduates is the citizenship.

Azerbaijan, Liechtenstein and **North Macedonia** (2000-2010); **Estonia, Ireland, Spain** and **United Kingdom**: The criteria used to define mobile graduates is the country of usual residence.

Belarus and **Montenegro**: Missing data.

Belgium, Denmark, Croatia and **Cyprus** (after 2016); **Austria, Finland, Iceland, Latvia, Lithuania, Malta, Norway, Poland, Portugal, Romania, Slovenia** and **Switzerland**: The criteria used to define mobile students is the country of upper secondary diploma.

Germany, Poland, Slovenia, United Kingdom and **Switzerland**: Definition differs.

Germany and **Spain**: ISCED 8 is not included in the tertiary mobile students.

Norway: Change in the definition of mobile student since UOE 2014 (2012/13).

Figure 5.7: Student mobility flows: Top three countries of ORIGIN (INWARD) in %, 2017 Albania,

Albania, Andorra, Bosnia and Herzegovina and **Bulgaria** (up to 2015); **Croatia** and **Czechia** (until 2016); **France, Georgia, Greece, Hungary, Italy, Kazakhstan, Luxembourg** and **Malta** (until 2016); **Moldova** and **North Macedonia** (2015-2018); **Netherlands, Russia, Serbia, Slovakia, Sweden, Turkey** and **Ukraine**: The criteria used to define mobile graduates is the citizenship.

Armenia, Azerbaijan, Kazakhstan, Moldova, Russia and **Ukraine**: Limited information from questionnaires. Data come from UIS.

Azerbaijan, Liechtenstein and **North Macedonia** (2000-2010); **Estonia, Ireland, Spain** and **United Kingdom**: The criteria used to define mobile graduates is the country of usual residence.

Belarus, Montenegro and **Slovenia**: Missing data.

Belgium, Croatia, Cyprus and **Denmark** (after 2016); **Austria, Finland, Iceland, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovenia, Norway** and **Switzerland**: The criteria used to define mobile students is the country of upper secondary diploma.

Germany and **Spain**: ISCED 8 is not included in the tertiary mobile students.

Figure 5.8: Student mobility flows: Top three countries of DESTINATION (OUTWARD) in %, 2016/17

Albania, Andorra, Bosnia and Herzegovina and **Bulgaria** (up to 2015); **Croatia** and **Czechia** (until 2016); **France, Georgia, Greece, Hungary, Italy, Kazakhstan, Luxembourg** and **Malta** (until 2016); **Moldova** and **North Macedonia** (2015-2018); **Netherlands, Russia, Serbia, Slovakia, Sweden, Turkey** and **Ukraine**: The criteria used to define mobile graduates is the citizenship.

Azerbaijan, Liechtenstein and **North Macedonia** (2000-2010); **Estonia, Ireland, Spain** and **United Kingdom**: The criteria used to define mobile graduates is the country of usual residence.

Belgium, Croatia, Cyprus and **Denmark** (after 2016); **Austria, Finland, Iceland, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovenia, Norway** and **Switzerland**: The criteria used to define mobile students is the country of upper secondary diploma.

Germany and **Spain**: ISCED 8 is not included in the tertiary mobile students.

Norway: Change in the definition of mobile student since UOE 2014 (2012/13).

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