



European  
Commission

# The European Higher Education Area in 2020

*Bologna Process  
Implementation Report*



Education,  
Audiovisual  
and Culture  
Executive Agency

**More information on the European Union is available on the Internet (<http://europa.eu>).**

**Luxembourg: Publications Office of the European Union, 2020**

PRINT ISBN: 978-92-9484-357-9

doi: 10.2797/851121

EC-02-20-828-EN-C

PDF ISBN: 978-92-9484-356-2

doi: 10.2797/756192

EC-02-20-828-EN-N

**© Education, Audiovisual and Culture Executive Agency, 2020**

The Commission's reuse policy is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39 – <https://eur-lex.europa.eu/eli/dec/2011/833/oj>).

Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed, provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective rightholders. The EU does not own the copyright in relation to any images which do not carry the copyright indicator © European Union.

CREDITS

Cover image: © Logo EHEA Ministerial Conference, Rome 2020

# **The European Higher Education Area in 2020**

**Bologna Process  
Implementation Report**

This document is published by the Education, Audiovisual and Culture Executive Agency (EACEA, Education and Youth Policy Analysis).

**Please cite this publication as:**

European Commission/EACEA/Eurydice, 2020. *The European Higher Education Area in 2020: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

Printed version	EC-02-20-828-EN-C	ISBN 978-92-9484-357-9	doi:10.2797/851121
PDF	EC-02-20-828-EN-N	ISBN 978-92-9484-356-2	doi:10.2797/756192

Text completed in October 2020.

Reproduction is authorised provided the source is acknowledged.

Education, Audiovisual and Culture Executive Agency  
Education and Youth Policy Analysis  
Avenue du Bourget 1 (J-70 – Unit A6)  
B-1049 Brussels  
E-mail: [eacea-eurydice@ec.europa.eu](mailto:eacea-eurydice@ec.europa.eu)  
Website: <http://ec.europa.eu/eurydice>

# 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

---

<b>Table of figures</b>	<b>7</b>
<b>Executive summary</b>	<b>9</b>
<b>Introduction</b>	<b>13</b>
The Bologna Process	13
Report outline	15
<b>Chapter 1: European Higher Education Area key data</b>	<b>17</b>
1.1. Student population	17
1.2. Academic staff	22
1.3. Higher education institutions	25
1.4. Expenditure on higher education	26
1.5. Conclusions	32
<b>Chapter 2: Degree structures</b>	<b>33</b>
2.1. History of progress and challenges in three-cycle degree structure reforms	34
2.1.1. The origins of the Bologna Process	34
2.1.2. Bologna Process commitments and developments: the first decade	35
2.1.3. The Bologna Toolkit	39
2.1.4. The EHEA since 2010: consolidating reforms	43
2.2. Qualitative indicators	46
2.2.1. Workload of first cycle programmes	46
2.2.2. Workload of second cycle programmes	47
2.2.3. Combined workload of first- and second-cycle programmes	48
2.2.4. Short-cycle programmes	49
2.2.5. Integrated/long programmes leading to a second cycle degree	50
2.2.6. Programmes outside the Bologna-degree structure	52
2.2.7. Monitoring the implementation of the ECTS system	54
2.2.8. Diploma Supplement (DS)	56
2.2.9. National Qualifications Frameworks (NQF)	58
2.3. Conclusions	60
<b>Chapter 3: Quality Assurance and Recognition</b>	<b>61</b>
3.1. History of progress and challenges in Quality Assurance in the European Higher Education Area	62
3.1.1. Quality Assurance in Europe before the Bologna Process	62
3.1.2. Quality Assurance in the Bologna Process	64
3.2. Qualitative indicators on state of play of Quality Assurance in the European Higher Education Area	72
3.2.1. Stage of development of external Quality Assurance	72
3.2.2. Student participation in external Quality Assurance	74
3.2.3. International participation in national Quality Assurance systems	75
3.2.4. Level of openness to cross border Quality Assurance of EQAR-registered agencies, 2018/19	77
3.2.5. The European Approach to the Quality Assurance of Joint Programmes in the EHEA	78
3.3. History of progress and challenges in Recognition in the European Higher Education Area	79
3.3.1. The Lisbon Recognition Convention (LRC)	79
3.3.2. Towards Automatic Recognition	81
3.3.3. ENIC-NARIC European Recognition Networks	83
3.4. Qualitative indicators on Recognition in the European Higher Education Area	83
3.4.1. Principles of the Lisbon Recognition Convention in national legislation, 2018/19	83
3.4.2. Implementation of Article VII of the Lisbon Recognition Convention	84
3.4.3. Automatic Recognition	86
3.5. Conclusions	89
3.5.1. Quality Assurance	89
3.5.2. Recognition	89

<b>Chapter 4: Social dimension</b>	<b>91</b>
4.1. History of progress and challenges in social dimension	92
4.1.1. Understanding the social dimension	92
4.1.2. The social dimension in Bologna documents	93
4.1.3. Developments at national level	95
4.1.4. Monitoring the state of the social dimension in the EHEA	97
4.1.5. Stakeholders' activities regarding the social dimension	100
4.2. Statistical data on access, participation and employability	101
4.2.1. Access and participation	101
4.2.2. Employability	113
4.3. Qualitative indicators on social dimension	115
4.3.1. Supporting under-represented groups	115
4.3.2. Recognition of prior non-formal and informal learning	117
4.3.3. Measures to support the retention and completion of students from under-represented groups	119
4.4. Conclusions	121
<b>Chapter 5: Internationalisation</b>	<b>123</b>
5.1. History of progress and challenges in internationalisation	124
5.1.1. Introduction	124
5.1.2. Mobility	124
5.1.3. Internationalisation	130
5.2. Statistical data	134
Assessing student mobility flows	134
5.2.1. Outward mobility	135
5.2.2. Inward degree mobility	140
5.2.3. Mobility balance	142
5.3. Qualitative data	146
5.3.1. Portability of public grants and publicly-subsidised loans	146
5.3.2. Supporting the mobility of students from disadvantaged groups	151
5.4. Conclusions	155
<b>Chapter 6: Future developments</b>	<b>157</b>
6.1. Introduction: continuity and change	157
6.2. Values	158
6.3. Sustainable development	159
6.4. European integration and innovation	159
6.5. Digitalisation	160
6.6. Micro-credentials	161
6.7. EHEA in the world	162
6.8. Conclusions	162
<b>Glossary and methodological notes</b>	<b>163</b>
I. Codes, abbreviations and acronyms	163
I.1. Country codes	163
I.2. Abbreviations	164
II. General terms	164
III. Statistical terms	172
IV. Data sources	178
V. Notes on statistical figures	180
<b>References</b>	<b>191</b>
<b>Acknowledgements</b>	<b>199</b>



# TABLE OF FIGURES

<b>Introduction</b>	<b>13</b>
The Bologna Process: from Sorbonne, 1998 to Paris, 2018	14
<b>Chapter 1: European Higher Education Area key data</b>	<b>17</b>
Figure 1.1: Number of students enrolled in tertiary education by ISCED level, 2016/17	18
Figure 1.2: Percentage change in the number of students enrolled in tertiary education, 2000-2017	19
Figure 1.3: Enrolment rates in tertiary education for the 18-34 olds, 2000-2017	20
Figure 1.4: Percentage change in the total number of academic staff between 2000 and 2017	22
Figure 1.5: Percentage of academic staff aged 50 or over, 2000 and 2017	23
Figure 1.6: Percentage of female academic staff, 2000 and 2017	24
Figure 1.7a: Number of higher education institutions in the EHEA, 1999/2000-2018/19	25
Figure 1.7b: Number of higher education institutions per million people in the EHEA, 2017	26
Figure 1.8: Annual public expenditure on tertiary education as a % of GDP (including R&D), 2016 and 2004	27
Figure 1.9: Annual public expenditure on public and private tertiary institutions per full-time equivalent student in euro, 2014-2016	28
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	29
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	31
<b>Chapter 2: Degree structures</b>	<b>33</b>
Figure 2.1: Share of first cycle-programmes with a workload of 180, 210, 240 or another number of ECTS credits, 2018/19	46
Figure 2.2: Share of second-cycle programmes with a workload of 60-75, 90, 120 or another number of ECTS credits, 2018/19	47
Figure 2.3: Most common total workload of first- and second-cycle programmes, 2018/19	48
Figure 2.4: Presence of short-cycle programmes considered as part of higher education, 2018/19	49
Figure 2.5: Presence of integrated/long programmes leading to a second-cycle degree and the percentage of students in these programmes, 2018/19	51
Figure 2.6: Programmes outside the Bologna-degree structure (other than integrated/long programmes), 2018/19	53
Figure 2.7: Scorecard indicator n°1: Monitoring the implementation of the ECTS system by external quality assurance, 2018/19	55
Figure 2.8: Scorecard indicator n°2: Stage of implementation of the Diploma Supplement, 2018/19	57
Figure 2.9: Scorecard indicator n°3: Implementation of national qualifications frameworks, 2018/19	58
<b>Chapter 3: Quality Assurance and Recognition</b>	<b>61</b>
Figure 3.1: Scorecard indicator n°4: Stage of development of external Quality Assurance system, 2018/19	73
Figure 3.2: Scorecard indicator n°5: Level of student participation in the external Quality Assurance system, 2018/19	74
Figure 3.3: Scorecard indicator n°6: Level of international participation in external Quality Assurance, 2018/19	76
Figure 3.4: Scorecard indicator n°7: Level of openness to cross border quality assurance of EQAR registered agencies, 2018/19	77
Figure 3.5: Countries allowing the European Approach for Quality Assurance of Joint Programmes, 2018/19	79
Figure 3.6: Principles of the Lisbon Recognition Convention in national legislation, 2018/19	84
Figure 3.7: Implementation of Article VII of the LRC at national level, 2018/19	85
Figure 3.8: Scorecard indicator n°8: System level (automatic) recognition for academic purposes, 2018/19	87

## Chapter 4: Social dimension 91

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	102
Figure 4.2:	Percentage change in the share of women among new entrants in tertiary education (ISCED 5-8), 2005 and 2017	103
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	104
Figure 4.4:	Percentage of female graduates in bachelor and master programmes, 2000 and 2017	105
Figure 4.5:	Participation rates in tertiary education among people aged 18 to 29, foreign-born, native-born and total population, 2005 and 2018	106
Figure 4.6:	Percentage of students enrolled in tertiary education, 30 or more years old, in year 2000 and 2017	108
Figure 4.7:	Percentage of persons with tertiary education by age group, year 2005 and 2018	109
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	111
Figure 4.9:	Students enrolled as part-timers in tertiary education. by country and age (%), 2013 and 2017	112
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	113
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	115
Figure 4.12:	Scorecard indicator n°9: Measures to support the access of under-represented groups to higher education, 2018/19	116
Figure 4.13:	Scorecard indicator n°10: Recognition of prior non-formal and informal learning, 2018/19	118
Figure 4.14:	Scorecard indicator n°11: Measures to support the retention and completion of students from under-represented groups, 2018/19	120

## Chapter 5: Internationalisation 123

Figure 5.1:	Outward (degree and credit) mobility rate of graduates (ISCED level 5-8) by country of origin, 2016/17, (%)	136
Figure 5.2:	Outward degree and credit mobility of graduates, by country of origin and level of educational attainment, 2016/17, (%)	137
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, (%)	138
Figure 5.4:	Outward degree mobility of graduates within the EHEA, by country of origin and level of educational attainment, 2016/17, (%)	139
Figure 5.5:	Incoming degree mobility rate per level of educational attainment within the EHEA, 2017	141
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	143
Figure 5.7:	Student mobility flows: Top three countries of ORIGIN (INWARD) in %, 2017	144
Figure 5.8:	Student mobility flows: Top three countries of DESTINATION (OUTWARD) in %, 2016/17	145
Figure 5.9:	Portability of public grants, first and second cycle, 2018/19	147
Figure 5.10:	Portability of publicly-subsidised loans, first and second cycle, 2018/19	148
Figure 5.11:	Scorecard indicator n°12: Portability of public grants and publicly-subsidised loans, 2018/19	149
Figure 5.12:	Scorecard indicator n°13: Supporting the mobility of students from disadvantaged groups, 2018/19	154

# 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 qualified 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

14

<b>Mobility of students and teachers</b>	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
<b>A common two-cycle degree system</b>	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
		<b>Social dimension</b>	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
		<b>Lifelong learning (LLL)</b>	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
<b>Use of credits</b>	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	
	<b>European cooperation in quality assurance (QA)</b>	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
<b>Europe of Knowledge</b>	European dimensions in higher education	Attractiveness of the EHEA	Links between higher education and research areas	International cooperation on the basis of values and sustainable development	Strategy to improve the global dimension of the Bologna Process adopted	Enhance global policy dialogue through Bologna Policy Fora	Evaluate implementation of 2007 global dimension strategy		Develop synergies between EHEA – ERA
								<b>Learning and Teaching:</b> Relevance and quality	Innovation and Inclusion in Learning and Teaching Digitalisation and digital skills
								Sustainable Development	Support to UNSDGs
<b>1998</b> Sorbonne Declaration	<b>1999</b> Bologna Declaration	<b>2001</b> Prague Communiqué	<b>2003</b> Berlin Communiqué	<b>2005</b> Bergen Communiqué	<b>2007</b> London Communiqué	<b>2009</b> Leuven/ Louvain-la-Neuve Communiqué	<b>2012</b> Bucharest Communiqué	<b>2015</b> Yerevan Communiqué	<b>2018</b> 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.

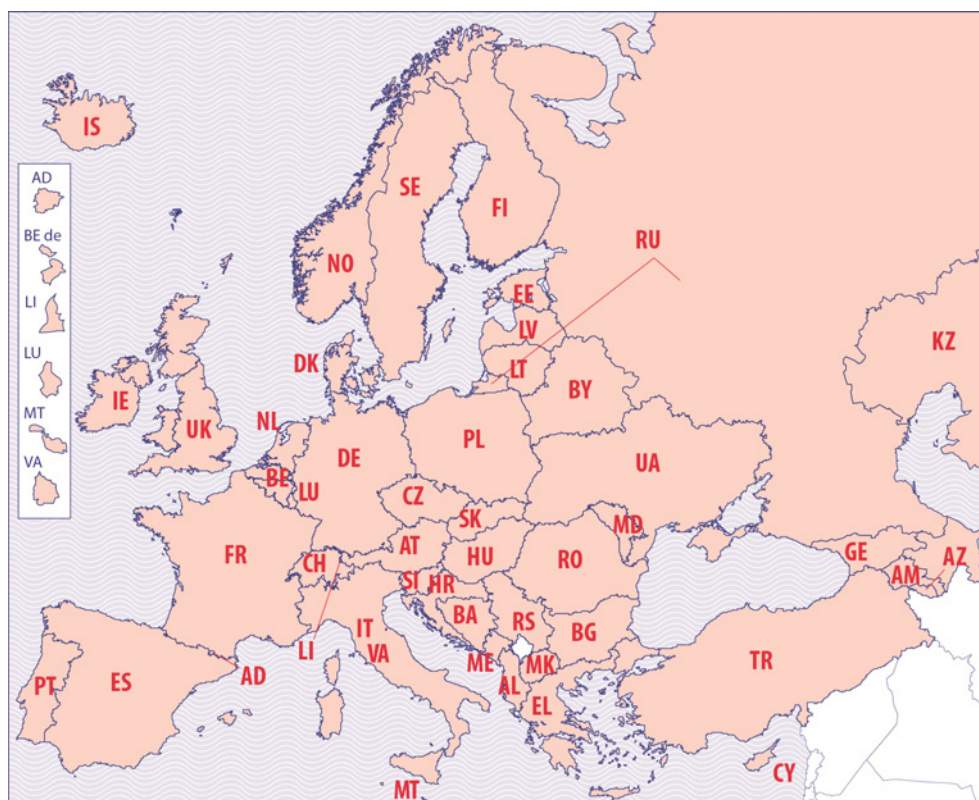
With regard to statistical data, the European Union's Education, Audiovisual and Culture Executive Agency (EACEA), working through Agilis SA, Greece, undertook a specific data collection in 2019 for the EHEA countries that are not part of regular Eurostat data gathering exercises. Data was collected 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.

# 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
BE de	Belgium – German-speaking Community	HU	Hungary	RS	Serbia
BE fr	Belgium – French Community	IE	Ireland	RU	Russia
BE nl	Belgium – Flemish Community	IS	Iceland	SE	Sweden
BG	Bulgaria	IT	Italy	SI	Slovenia
BY	Belarus	KZ	Kazakhstan	SK	Slovakia
CH	Switzerland	LI	Liechtenstein	TR	Turkey
CY	Cyprus	LT	Lithuania	UA	Ukraine
CZ	Czechia	LU	Luxembourg	UK-ENG	United Kingdom – England
DE	Germany	LV	Latvia	UK-NIR	United Kingdom – Northern Ireland
DK	Denmark	MD	Moldova	UK-SCT	United Kingdom – Scotland
EE	Estonia	ME	Montenegro	UK-WLS	United Kingdom – Wales
		MK	North Macedonia	VA	Holy See

## 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 <sup>(82)</sup>).

### 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

---

<sup>(82)</sup> 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 <sup>(83)</sup>.

### **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

---

<sup>(83)</sup> 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 <sup>(84)</sup>.

### **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 <sup>(85)</sup>).

### **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.

---

<sup>(84)</sup> Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

<sup>(85)</sup> 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) <sup>(86)</sup>.

## 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 <sup>(87)</sup> 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,

---

<sup>(86)</sup> Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

<sup>(87)</sup> 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 <sup>(88)</sup>.

### **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).

---

<sup>(88)</sup> 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 <sup>(89)</sup>.

## **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

---

<sup>(89)</sup> 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 <sup>(90)</sup>

---

<sup>(90)</sup> 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 4.1 and 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 <sup>(91)</sup>.

---

## 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 <sup>(92)</sup>.

---

<sup>(91)</sup> For more details on the EU-LFS, see: [http://ec.europa.eu/eurostat/statistics-explained/index.php/EU\\_labour\\_force\\_survey](http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey) [Accessed 15 October 2020].

<sup>(92)</sup> 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](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 <sup>(93)</sup>.

## 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.

---

<sup>(93)</sup> 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%93\\_methodology#Introduction](http://ec.europa.eu/eurostat/statistics-explained/index.php/UNESCO_OECD_Eurostat_(UOE)_joint_data_collection_%E2%80%93%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.





**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\_uae\_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).



## REFERENCES

---

Bergen Communiqué, 2005. *The European Higher Education Area - achieving the goals: Communiqué of the conference of European ministers responsible for higher education*. Retrieved from European Higher Education Area website: <http://ehea.info/page-ministerial-declarations-and-communications> [Accessed 16 October 2020].

Berlin Communiqué, 2003. *Realising the European Higher Education Area: Communiqué of the Conference of Ministers responsible for higher education*. Retrieved from <http://ehea.info/page-ministerial-declarations-and-communications> [Accessed 16 October 2020].

Bologna Declaration, 1999. *The Bologna declaration of June 1999: Joint declaration of the European ministers of education*. Retrieved from <http://ehea.info/page-ministerial-declarations-and-communications> [Accessed 16 October 2020].

BFUG Advisory Group on the Social Dimension, 2020. *Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA*. Retrieved from [http://www.ehea.info/Upload/BFUG\\_HR\\_UA\\_69\\_5\\_2\\_AG1\\_PAGs.pdf](http://www.ehea.info/Upload/BFUG_HR_UA_69_5_2_AG1_PAGs.pdf) [Accessed 16 October 2020].

BFUG Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries, 2007. *Key issues for the European Higher Education Area - Social dimension and mobility: Report from the Bologna Process Working Group on Social Dimension and Data on Mobility on Staff and Students in Participating Countries*. Retrieved from: [http://www.ehea.info/media.ehea.info/file/WG\\_Social\\_dimension\\_Mobility/38/2/SocialDimension\\_Mobility\\_report2007\\_581382.pdf](http://www.ehea.info/media.ehea.info/file/WG_Social_dimension_Mobility/38/2/SocialDimension_Mobility_report2007_581382.pdf) [Accessed 16 October 2020].

BFUG Working Group on the Social Dimension, 2012. *Report of the BFUG Working Group on the Social Dimension: 2009-2012*. Retrieved from <http://www.ehea.info/cid104393/wg-social-dimension-2009-2012.html> [Accessed 16 October 2020].

BFUG Working Group on the Social Dimension and Lifelong Learning, 2015. *Report of the 2012-2015 BFUG Working Group on the Social Dimension and Lifelong Learning to the BFUG*. Retrieved from <http://www.ehea.info/cid104392/wg-social-dimension-2012-2015.html> [Accessed 16 October 2020].

BFUG Working Group 2 on Implementation, 2018. *On implementation: Fostering implementation of agreed key commitments final report*. Retrieved from European Higher Education Area website: [http://ehea.info/media.ehea.info/file/2018\\_Paris/72/6/MEN\\_conf-EHEA\\_WG2\\_03\\_950726.pdf](http://ehea.info/media.ehea.info/file/2018_Paris/72/6/MEN_conf-EHEA_WG2_03_950726.pdf) [Accessed 16 October 2020].

Bologna Process Stocktaking Report, 2005. Report from a working group appointed by the Bologna Follow-up Group to the Conference of European Ministers responsible for Higher Education, Bergen, 19-20 May 2005. Retrieved from European Higher Education Area website: <http://www.ehea.info/page-Implementation-reports> [Accessed 16 October 2020].

Bologna Process Stocktaking Report, 2007 Report presented by the Bologna Follow-up Group to the Ministerial Conference in London, May 2007. Retrieved from European Higher Education Area website: <http://www.ehea.info/page-Implementation-reports> [Accessed 16 October 2020].

Bologna Process Stocktaking Report, 2009. Report from working groups appointed by the Bologna Follow-up Group to the Ministerial Conference in Leuven/Louvain-la-Neuve. Retrieved from European Higher Education Area website: <http://www.ehea.info/page-Implementation-reports> [Accessed 16 October 2020].

Bucharest Communiqué, 2012. *Making the most of our potential: Consolidating the European Higher Education Area*. Bucharest, Romania. Retrieved from European Higher Education Area website: <http://ehea.info/page-ministerial-declarations-and-communicues>

Budapest-Vienna Declaration, 2010. *Budapest-Vienna declaration on the European Higher Education Area*. Retrieved from European Higher Education Area website: <http://ehea.info/page-ministerial-declarations-and-communicues>

Cedefop, 2010. *The skill matching challenge. Analysing skill mismatch and policy implications*. Luxembourg: Publications Office of the European Union.

Claeys-Kulik, A.-L., & Jørgensen, T. E., 2018. *Universities' strategies and approaches towards diversity, equity and inclusion: Examples from across Europe*. Brussels, Belgium: European University Association. Available at: <https://eua.eu/downloads/publications/universities-39-strategies-and-approaches-towards-diversity-equity-and-inclusion.pdf> [Accessed 16 October 2020].

Claeys-Kulik, A.-L., Jørgensen, T. E., & Stöber, H., 2019. *Diversity, equity and inclusion in European higher education institutions: Results from the INVITED project*. Brussels, Belgium: European University Association. Available at: [https://eua.eu/downloads/publications/web\\_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institutions.pdf](https://eua.eu/downloads/publications/web_diversity%20equity%20and%20inclusion%20in%20european%20higher%20education%20institutions.pdf) [Accessed 16 October 2020].

Council of the European Union, 2017. Council recommendation of 20 November 2017 on tracking graduates. *Official Journal of the European Union*, C 423(1). Available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32017H1209\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32017H1209(01)&from=EN) [Accessed 16 October 2020].

Crowther et al., 2001. Crowther, P., Joris, M., Otten, M., Nilsson, B., Teekens, H., & Wächter, B. *Internationalisation at home: A position paper*. Amsterdam: EAIE. Available at: <https://www.internationalisering.nl/wp-content/uploads/2015/04/Internationalisation-at-Home-A-Position-Paper.pdf> [Accessed 16 October 2020]

Department for Business, Innovation & Skills, 2016. *Success as a knowledge economy: Teaching excellence, social mobility and student choice*. UK Parliament Command Paper, session 2015/16: CM 9258. London, United Kingdom: The Stationary Office.

DZHW (German Centre for Higher Education Research and Science Studies) ed., 2018. *Social and Economic Conditions of Student Life in Europe. EUROSTUDENT VI 2016-2018 Synopsis of Indicators*. [pdf] [https://khrono.no/files/2018/03/06/EUROSTUDENT\\_VI\\_Synopsis\\_of\\_Indicators%20\(2\).pdf](https://khrono.no/files/2018/03/06/EUROSTUDENT_VI_Synopsis_of_Indicators%20(2).pdf) [Accessed 16 October, 2020].

EHEA Pathfinder Group on Automatic Recognition, 2014. Report by the EHEA Pathfinder Group on Automatic Recognition. To present to Ministers of the European Area of Higher Education for the Bologna Ministerial Conference, 14-15 May 2015, Yerevan, Armenia. [pdf] Available at: [http://www.ehea.info/media.ehea.info/file/2015\\_Yerevan/72/3/EHEA\\_Pathfinder\\_Group\\_on\\_Automatic\\_Recognition\\_January\\_2015\\_613723.pdf](http://www.ehea.info/media.ehea.info/file/2015_Yerevan/72/3/EHEA_Pathfinder_Group_on_Automatic_Recognition_January_2015_613723.pdf) [Accessed 16 October 2020].

ENQA, 2003. Quality procedures in European Higher Education. Danish Evaluation Institute, Survey of QA agencies. Available at: [https://enqa.eu/indirme/papers-and-reports/occasional-papers/procedures\(1\).pdf](https://enqa.eu/indirme/papers-and-reports/occasional-papers/procedures(1).pdf) [Accessed 16 October 2020]

European Association for Quality Assurance in Higher Education (ENQA), 2011a. Evaluation of the reports on agency reviews (2005-2009). Occasional papers 16. Helsinki, Finland.

ENQA, 2011. Mapping the Implementation and application of the ESG (MAP-ESG) Final report of the project steering group. Available at: [https://enqa.eu/indirme/papers-and-reports/occasional-papers/op\\_17\\_web\(1\).pdf](https://enqa.eu/indirme/papers-and-reports/occasional-papers/op_17_web(1).pdf) [Accessed 16 October 2020].



EQAR Annual Report 2018. Available at: [https://www.eqar.eu/assets/uploads/2018/07/EQAR\\_AR\\_17\\_1.pdf](https://www.eqar.eu/assets/uploads/2018/07/EQAR_AR_17_1.pdf) [Accessed 16 October 2020].

EQAR, Report of the Expert Panel appointed to review the European Quality Assurance Register for Higher Education, 2011. [https://www.eqar.eu/assets/uploads/2018/04/Report\\_Expert-panel\\_Final.pdf](https://www.eqar.eu/assets/uploads/2018/04/Report_Expert-panel_Final.pdf)

European Commission, 2015. *ECTS Users' Guide*. Luxembourg: Publications Office of the European Union. Luxembourg: Publications Office of the European Union.

European Commission, 2017a. *Communication from the European Commission to the European Parliament, the council, the European Economic and Social Committee of the regions: On a renewed EU agenda for higher education* (No. 247). Brussels.

European Commission, 2017b. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Strengthening. European Identity through Education and Culture*. COM(2017) 673 final.

European Commission, 2019. *Studying abroad - benefits and unequal uptake*. Science for Policy Briefs, Joint Research Centre. [pdf] Available at: [https://ec.europa.eu/jrc/en/page/fairness-policy-briefs-series-182382#studying\\_abroad](https://ec.europa.eu/jrc/en/page/fairness-policy-briefs-series-182382#studying_abroad) [Accessed: 19 July 2019].

European Commission/EACEA/Eurydice. 2012. *The European Higher Education Area in 2012: Bologna process implementation report*. Brussels, Belgium: Education, Audiovisual and Culture Executive Agency (EACEA P9 Eurydice).

European Commission/EACEA/Eurydice, 2013. *Key Data on Teachers and School Leaders in Europe. 2013 Edition*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice, 2015a. *The Teaching Profession in Europe: Practices, Perceptions, and Policies*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice. 2015b. *The European Higher Education Area in 2015: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice, 2016. *Mobility Scoreboard: Higher Education Background Report*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice, 2018. *The European Higher Education Area in 2018: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice, 2020. *Mobility Scoreboard: Higher Education Background Report 2018/19*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Higher Education Area, 2015. *Widening participation for equity and growth: A strategy for the development of the social dimension and lifelong learning in the European Higher Education Area to 2020*.

European Students' Union Consultation Report of the MAP-ESG Project. Brussels, 2012. p. 6. Available at: <https://www.esu-online.org/wp-content/uploads/2016/07/MAP-ESG-report.pdf> Accessed 16 October 2020]

European Students' Union, 2009. *Bologna with student eyes 2009*. Leuven, Belgium. Retrieved from <http://www.ehea.info/cid101739/bologna-with-student-eyes.html> [Accessed 16 October 2020]

European Students' Union, 2012. *Bologna with student eyes 2012*. Brussels, Belgium: Available at: <https://www.esu-online.org/?publication=bologna-with-student-eyes-2012> [Accessed 16 October 2020]

European Students' Union, 2015. *Bologna with student eyes 2015: Time to meet the expectations from 1999*. Brussels, Belgium: European Students' Union. Available at: <http://www.esu-online.org/wp-content/uploads/2016/07/BWSE-2015-online.pdf> [Accessed 16 October 2020]

European Students' Union, 2018. *Bologna with student eyes 2018: the final countdown*. Brussels, Belgium: Emily Fischer. Retrieved from <https://www.esu-online.org/publications/bologna-student-eyes-2018-2/> [Accessed 16 October 2020]

European Students' Union, 2019. Social Dimension Policy Paper 2019 (Board meeting No. 77). Available at: <https://www.esu-online.org/wp-content/uploads/2020/01/Social-Dimension-Policy-Paper-2019.pdf> [Accessed 16 October 2020]

EUA, 1999: *Trends in Learning Structures in Higher Education*. [pdf] Available at: [https://eua.eu/downloads/publications/trends %20i %20trends %20in %20learning %20structures %20in %20higher %20education.pdf](https://eua.eu/downloads/publications/trends%20i%20trends%20in%20learning%20structures%20in%20higher%20education.pdf) [Accessed 16 October 2020]

EUA, 2001 *Trends II - Towards the European higher education area : survey of main reforms from Bologna to Prague*. [pdf] Available at: <https://eua.eu/resources/publications/676:trends-ii-towards-the-european-higher-education-area-survey-of-main-reforms-from-bologna-to-prague.html> [Accessed 16 October 2020]

EUA, 2005. *Doctoral programmes for the European Knowledge Society*. Retrieved from [https://eua.eu/downloads/publications/doctoral %20programmes %20for %20the %20european %20knowledge %20society %20results %20of %20eua %20doctoral %20programme.pdf](https://eua.eu/downloads/publications/doctoral%20programmes%20for%20the%20european%20knowledge%20society%20results%20of%20eua%20doctoral%20programme.pdf)

EUA, 2007. *Trends V: Universities shaping the European Higher Education Area* pdf] Available at [http://www.eua.be/Libraries/publications-homepage-list/eua\\_trends\\_v\\_for\\_web1b9364ca84b96a879ce5ff00009465c7.pdf?sfvrsn=0](http://www.eua.be/Libraries/publications-homepage-list/eua_trends_v_for_web1b9364ca84b96a879ce5ff00009465c7.pdf?sfvrsn=0) [Accessed 16 October 2020].

EUA, 2008. *European Universities' charter on lifelong learning*. Brussels: European University Association. Retrieved from: <https://eua.eu/resources/publications/646:european-universities'-charter-on-lifelong-learning.html> [Accessed 16 October 2020]

EUA, 2009. Survey of Master Degrees in Europe. Retrieved from: <https://eua.eu/component/attachments/attachments.html?task=attachment&id=750>

EUA 2015. *Trends 2015: Learning and Teaching in European Universities* [pdf] Available at: [https://eua.eu/downloads/publications/trends %202015 %20learning %20and %20teaching %20in %20European %20universities.pdf](https://eua.eu/downloads/publications/trends%202015%20learning%20and%20teaching%20in%20European%20universities.pdf) [Accessed 16 October 2020]

Federal Ministry of Science, Research and Economy [AT], 2017. *National strategy on the social dimension of higher education: Towards more inclusive access and wider participation*. Brief summary. Vienna, Austria.

Ferencz I., 2015. *Balanced Mobility Across the Board – A Sensible Objective?* In: Curaj A., Matei L., Pricopie R., Salmi J., Scott P. (eds) *The European Higher Education Area*. Springer, Cham.

Frazer, M., 1997. Report on the Modalities of External Evaluation of Higher Education in Europe: 1995-1997. *Higher Education in Europe*, 22(3), p. 371.

Gover, A., Loukkola, T., 2015. EUREQA MOMENTS! Top Tips for Internal Quality Assurance. (Brussels, EUA) Available at: <https://eua.eu/resources/publications/359:eureqa-moments-top-tips-for-internal-quality-assurance.html> [Accessed 16 October 2020]

Gover, A., Loukkola, T., 2018. EQUIP project 'Enhancing quality through innovative policy & practice. *Enhancing Quality: From Policy to Practice*. p. 21. Available at: <https://eua.eu/downloads/publications/>

enhancing %20quality %20from %20policy %20to %20practice %20equip %20publication %20final.pdf [Accessed 16 October 2020]

Griga, D. and Hadjar, A., 2014. Migrant Background and Higher Education Participation in Europe: The Effect of the Educational Systems. In: *European Sociological Review* 30(3), pp. 275-286.

Higher Education Authority, [UK] 2015. *National plan for equity of access to higher education 2015-2019*.

HIS, 2009. *The Bologna Process in higher education in Europe: Key indicators on the social dimension and mobility*. Eurostat: Statistical books. Luxembourg: Office for Official Publications of the European Communities.

Huisman, J., 2019. The Bologna process in European and post-Soviet higher education: institutional legacies and policy adoption. *The European Journal of Social Science Research*, p. 1.

Kaiser, F., Maoláin, A. Ó., & Vikmane, L., 2015. No future for the social dimension? In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European higher education area: Between critical reflections and future policies* (449-466). Cham: Springer.

Kottmann, A., Vossensteyn, J. J., Kolster, R., Veidemane, A., Blasko, Z., Biagi, F., & Sánchez-Barrioluengo, M., 2019. *Social Inclusion Policies in Higher Education: Evidence from the EU: Overview of major widening participation policies applied in the EU 28*. Luxembourg: Publications Office of the European Union.

Lam, Q, Oste D. with Ferencz, I. and Wächter, B., 2013. Portable state grants and loans. An overview and their contribution to outgoing student mobility. ACA Papers on International Cooperation in Education. Bonn: Lemmens Medien.

Leuven and Louvain-la-Neuve Communiqué, 2009. *The Bologna process 2020 - The European Higher Education Area in the new decade: Communiqué of the conference of European ministers responsible for higher education*. Retrieved from <http://ehea.info/page-ministerial-declarations-and-communiques>

Loukkola T., Zhang, T., 2010. *Examining Quality Culture: Part 1 – Quality Assurance Processes in Higher Education Institutions*. European University Association, p. 36, 39 <https://eua.eu/downloads/publications/examining%20quality%20culture%20part%20i%20quality%20assurance%20processes%20in%20higher%20education%20inst.pdf>

London Communiqué, 2007. *Towards the European Higher Education Area: responding to challenges in a globalised world*. Retrieved from <http://ehea.info/page-ministerial-declarations-and-communiques>

Lourtie, P, 2001: *Furthering the Bologna Process: report to the Ministers of Education of the signatory countries*. Retrieved from [http://www.ehea.info/media.ehea.info/file/2001\\_Prague/70/8/2001\\_Prague\\_BFUG\\_Report\\_553708.pdf](http://www.ehea.info/media.ehea.info/file/2001_Prague/70/8/2001_Prague_BFUG_Report_553708.pdf)

Matei, L. & Curaj A., 2014. *Building an Integrated Higher Education System in Europe*. Central European University Press, Budapest, p. 114.

Ministarstvo znanosti i obrazovanja [Republic of Croatia Ministry of Science and Education], 2019. *Nacionalni plan za unaprjeđenje socijalne dimenzije visokog obrazovanja u Republici Hrvatskoj 2019 – 2021*. [National Plan for Improving the Social Dimension of Higher Education in the Republic of Croatia]. Zagreb, Croatia.

Ministry of Education, Culture and Science, [NL] 2019. Sustainable for the future: Strategic agenda for higher education and research. Available (in Dutch) at: <https://www.rijksoverheid.nl/documenten/publicaties/2019/12/02/strategische-agenda-hoger-onderwijs-en-onderzoek> [Accessed 19 October 2020].

Orr, D., Usher, A., Haj, C., Atherton, G., & Geanta, I., 2017. *Study on the impact of admission systems on higher education outcomes: Volume I: Comparative report. Education and Training*. Luxembourg: Publications Office of the European Union. <https://doi.org/10.2766/943076>

Paris Communiqué, 2018. *EHEA ministerial conference Paris 2018*. Retrieved from European Higher Education Area website: <http://ehea.info/page-ministerial-declarations-and-communications>

PL4SD, 2015. *PL4SD final project report*. Retrieved from [http://www.eurashe.eu/library/pl4sd\\_final-report-pdf/](http://www.eurashe.eu/library/pl4sd_final-report-pdf/)

Prague Communiqué (2001). Towards the European Higher Education Area: Communiqué of the meeting of European ministers in charge of higher education in Prague on May 19th 2001. Available at: <http://ehea.info/page-ministerial-declarations-and-communications>

Quality Procedures in the European Higher Education Area and Beyond – Internationalisation of Quality Assurance Agencies. 4th ENQA Survey. Brussels. (2015) [https://enqa.eu/indirme/papers-and-reports/occasional-papers/enqa\\_oc\\_22.pdf](https://enqa.eu/indirme/papers-and-reports/occasional-papers/enqa_oc_22.pdf)

Salmi, J. and Hauptman, A.M., 2006. *Innovations in Tertiary Education Financing: A Comparative Evaluation of Allocation Mechanisms*. Education Working Paper Series, Number 4. Washington: Human Development Network, Education Sector World Bank Group. [pdf] Available at: [https://pdfs.semanticscholar.org/4f0b/4c1e7c53c270931f92fddfa4b84bdc86142c.pdf?\\_ga=2.24328314.1111460926.1603112851-572751804.1603112851](https://pdfs.semanticscholar.org/4f0b/4c1e7c53c270931f92fddfa4b84bdc86142c.pdf?_ga=2.24328314.1111460926.1603112851-572751804.1603112851) [Accessed 19 October 2020].

Smidt, H., & Sursock, A. (2011). *Engaging in lifelong learning: Shaping inclusive and responsive university strategies*. EUA publications. Brussels: EUA Publications. Available at: <https://eua.eu/resources/publications/404:engaging-in-lifelong-learning-shaping-inclusive-and-responsive-university-strategies.html>

Sorbonne Joint Declaration, 1998. *EHEA ministerial conference Sorbonne: Joint declaration on harmonisation of the architecture of the European higher education system*. Retrieved from <http://ehea.info/page-ministerial-declarations-and-communications>

Szabo, M., Tück, C., 2018. Analysis of Register Committee Decisions and Quality Assurance Agencies' Compliance with the ESG (Brussels, EQAR). p. 13.

Teichler, U., 2019. *Bologna and student mobility: a fuzzy relationship*. Innovation: The European Journal of Social Science Research, 32:4, 429-449.

Temple, P., & Billing, D. 2003. *Higher Education Quality Assurance Organisations in Central and Eastern Europe*. *Quality in Higher Education*, 9(3), 243-258.

Tupan-Wenno, M Camilleri A, Fröhlich M, King S, 2016: *Effective Approaches to Enhancing the Social Dimension of Higher Education* Knowledge Innovation Centre (Malta). Available at: <https://www.eurashe.eu/library/modernising-phe/IDEAS-Final-Report.pdf>

UNESCO-UIS, OECD and Eurostat, 2016. *UOE data collection on formal education. Manual on concepts, definitions and classifications. Version of 11th of July 2016*. [pdf] Available at: [http://uis.unesco.org/sites/default/files/documents/uoe2016manual\\_11072016\\_0.pdf](http://uis.unesco.org/sites/default/files/documents/uoe2016manual_11072016_0.pdf) [Accessed 16 October 2020].

Usher, A., 2015. Equity and the social dimension: An overview. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European higher education area: Between critical reflections and future policies* (pp. 433-447). Cham: Springer.

Van Bruggen, J.C., Scheele, J.P. & Westerheijden, D.F., 1998. To be continued. Syntheses and trends in follow-up of quality assurance in West European higher education. *European Journal for Education Law and Policy* 2, 155-163.

Vukasovic, M., 2017. Stakeholder organizations in the European higher education area: exploring transnational policy dynamic. *Policy and Society*, 36(1), 109-126. <https://doi.org/10.1080/14494035.2017.1286741>

Westerheijden, D. F., Beerkens, E., Cremonini, L., Huisman, J., Kehm, B., Kovač, A., Yağci, Y., 2010a. *The first decade of working on the European Higher Education Area: Detailed assessment report* (The Bologna Process Independent Assessment No. 1). Retrieved from <https://publications.euroopa.eu/en/web/general-publications/publications>

Westerheijden, D. F., Beerkens, E., Cremonini, L., Huisman, J., Kehm, B., Kovač, A., Yağci, Y., 2010b. *The first decade of working on the European Higher Education Area: Executive summary, overview and conclusions* (The Bologna Process Independent Assessment).

Witthaus, G. et al., 2017. *Validation of Non-formal MOOC-based Learning: An Analysis of Assessment and Recognition Practices in Europe (OpenCred)*. JRC Science for Policy Report. [pdf] Available at: <http://bookshop.europa.eu/en/validation-of-non-formal-mooc-based-learning-pbLFNA27660/?CatalogCategoryID=QN4KABste0YAAAEjFZEY4e5L> [Accessed 28 February 2018].

Yağci, Y., 2014. Setting policy agenda for the social dimension of the Bologna Process. *Higher Education Policy*, 1-20.

Yerevan Communiqué (2015). *EHEA ministerial conference Yerevan 2015*. Retrieved from European Higher Education Area website: <http://ehea.info/page-ministerial-declarations-and-communications>

Zgaga, P., 2006. Looking out: The Bologna Process in a Global Setting. On the "External Dimension" of the Bologna Process. Ministry of Education and Research (Norway)



# ACKNOWLEDGEMENTS

---

## **BFUG Reporting Working Group Co-Chairs**

Tone Flood Strøm  
David Crosier

## **Authors**

David Crosier, Irina Ferencz, Kristina Hauschildt,  
Daniela Kocanova, Cornelia Racké, Jari Riiheläinen,  
Melinda Szabo, Bernd Waechter, Sophie Wulk

## **Statistical information and analysis from**

Anais Santourian, AGILIS

## **Layout and graphics**

Patrice Brel

## **Editing**

Gisèle De Lel

---

## BFUG CONTACTS

---

### Albania

Linda Pustina

### Andorra

Jordi Llombart

### Armenia

Gayane Harutyunyan

### Austria

Gottfried Bacher  
Stephan Dulmovits

### Azerbaijan

Shahin Bayramov

### Belarus

Igor Titovich

### Belgium/Flemish Community

Magalie Soenen

### Belgium/French Community

Caroline Hollela

### Bosnia and Herzegovina

Aida Duric  
Petar Marić

### Bulgaria

Ivana Radonova

### Business Europe

Irene Seling

### Croatia

Ana Tecilazić Goršić

### Cyprus

Panicos Giorgoudes

### Czechia

Zuzana Poláková

Tomas.Fliegl

### Denmark

Jonas Johannesen

### Estonia

Janne Pukk

### Education International

Andreas Keller

### European Commission

Klara Engels-Perenyi

### European Association for Quality Assurance in Higher Education (ENQA)

Maria Kelo

### European Quality Assurance Register (EQAR)

Colin Tück

### European Students Union (ESU)

Robert Napier  
Gohar Hovhannisyán

### European University Association (EUA)

Michael Gaebel  
Tia Lökkola  
Henriette Stoeber

### European Association of Institutions in Higher Education (EURASHE)

Michal Karpisek

### EUROSTUDENT

Kristina Hauschildt

### Finland

Maija Innola

### France

Hélène Lagier

### Georgia

Khatia Tsiramua

### Germany

Peter Greisler  
Frank Petrikowski

### Greece

Alexandra Karvouni

### Holy See

Melanie Rosenbaum

### Hungary

Ernö Keszei  
Beatrix Borza

### Iceland

Una Vidarsdóttir

### Ireland

Joseph Gleeson

### Italy

Vincenzo Zara

### Kazakhstan

Rauza. Mendaliyeva

### Latvia

Daiga Ivsina

### Liechtenstein

Eva-Maria Schädler

### Lithuania

Andrius Zalitis  
Laura Stračinskienė

### Luxembourg

Isabelle Reinhardt

### Malta

Tanya Sammut-Bonnici

### Moldova

Nadejda Velisco

### Montenegro

Mubera Kurpejović

### The Netherlands

Tessa Bijvank

### North Macedonia

Borcho Aleksov

### Norway

Tone Flood Strøm

### Poland

Maria Boltruszko

### Portugal

Ana Mateus

### Romania

Cristina Ghițulică

### Russian Federation

Nadezda Kamynina

### Serbia

Vanja.Nedeljkovic

### Slovakia

Jozef Jurkovič

### Slovenia

Marija Škerlj



**Spain**

Margarita de Lezcano-Mújica

**Sweden**

Robin Moberg

**Switzerland**

Aurélia Robert-Tissot

**Turkey**

Canan Ünvan

**Ukraine**

Kateryna Suprun  
Alexander Smirnov

**United Kingdom –  
England, Wales and  
Northern Ireland**

Pamela Wilkinson

**United Kingdom –  
Scotland**

Michael Watney

---

**MEMBERS OF BFUG  
WORKING GROUP 1**

---

**Albania**

Linda Pustina

**Armenia**

Lusine Fljyan

**Austria**

Helga Posset

**Belarus**

Elenja Betenya

**Cyprus**

Panicos Giorgoudes

**Czechia**

Tomas.Fliegl

**France**

Hélène Lagier

**Germany**

Frank Petrikowski

**Lithuania**

Laura Stracinskiene

**Italy**

Vincenzo Zara

**Norway**

Tone Flood Strøm  
(Co Chair)

**Education International**

Rob Copeland

**European Quality Assurance  
Register (EQAR)**

Melinda Szabo

**European Students Union  
(ESU)**

Sebastian Berger

**European University  
Association (EUA)**

Henriette Stoeber

**EUROSTUDENT**

Kristina Hauschild

**EACEA/Eurydice**

David Crosier (Co Chair)

---

**BOLOGNA SECRETARIAT**

---

Luca Lantero  
Giovanni Finocchietti  
Vera Lucké



## **Getting in touch with the EU**

### **IN PERSON**

All over Europe there are hundreds of local EU information centres.

You can find the address of the centre nearest to you at: [europa.eu/contact](http://europa.eu/contact)

### **ON THE PHONE OR BY EMAIL**

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by electronic mail via: [europa.eu/contact](http://europa.eu/contact)

## **Finding information about the EU**

### **ONLINE**

Information in all the official languages of the European Union is available on the Europa website: [europa.eu](http://europa.eu)

### **EU PUBLICATIONS**

You can download or order free and priced EU publications from EU Bookshop at: <http://bookshop.europa.eu>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see <http://europa.eu/contact>).

### **EU LAW AND RELATED DOCUMENTS**

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at:

<http://eur-lex.europa.eu>

### **OPEN DATA FROM THE EU**

The EU Open Data Portal (<http://data.europa.eu/euodp/en/data>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

