



European  
Commission

# The European Higher Education Area in 2020

*Bologna Process  
Implementation Report*



Education,  
Audiovisual  
and Culture  
Executive Agency

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**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

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# CHAPTER 2:

## DEGREE STRUCTURES

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### Chapter outline

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

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

### The 2018 Paris Communiqué

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

### Key messages

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

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

### 2.1.1. The origins of the Bologna Process

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

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

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

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

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

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<sup>(3)</sup> Sorbonne Joint Declaration. Joint declaration on harmonisation of the architecture of the European higher education system, Paris, the Sorbonne, 25 May 1998.

## 2.1.2. Bologna Process commitments and developments: the first decade

### Bologna 1999

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

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

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

### Prague 2001

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

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

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

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<sup>(4)</sup> The Bologna Declaration of 19 June 1999.

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

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

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

### Berlin 2003

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

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

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

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

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

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

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

<sup>(6)</sup> Towards the European Higher Education Area, Prague Communiqué, 19 May 2001.

<sup>(7)</sup> Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003.

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

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

### **Bergen 2005**

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

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

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

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

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

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

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

## London 2007

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

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

## Leuven/Louvain-la-Neuve 2009

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

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

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

## Change in the first decade

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

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

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<sup>(9)</sup> Towards the European Higher Education Area: responding to challenges in a globalised world, London, 18 May 2007.

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



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

### **2.1.3. The Bologna Toolkit**

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

#### **The Diploma Supplement (DS)**

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

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

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

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

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

## National Qualifications Frameworks (NQF)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## European Credit Transfer and Accumulation System (ECTS)

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

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

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

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

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

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

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

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<sup>(11)</sup> For further information, see <http://www.unideusto.org/tuningeu>

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

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

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

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

#### **2.1.4. The EHEA since 2010: consolidating reforms**

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

##### **Bucharest 2012**

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

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

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

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

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<sup>(12)</sup> Making the Most of Our Potential: Consolidating the European Higher Education Area. Bucharest Communiqué, 27 April 2012.

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

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

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

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

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

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

## Yerevan 2015

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

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

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

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<sup>(13)</sup> Yerevan Communiqué, 15 May 2015.

## Paris 2018

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

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

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

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

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

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

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<sup>(14)</sup> Paris Communiqué, 25 May 2018.

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

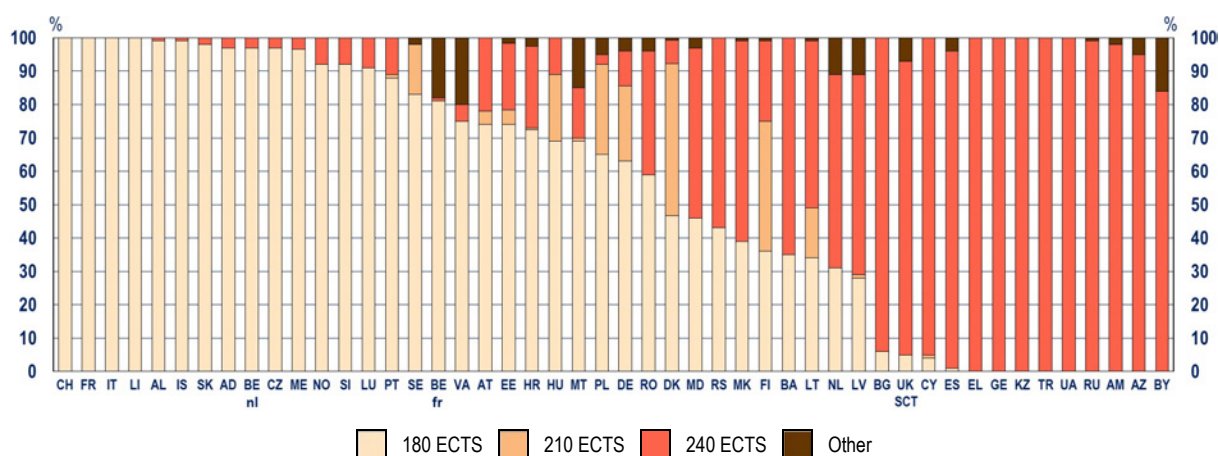
## 2.2. Qualitative indicators

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

### 2.2.1. Workload of first cycle programmes

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

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



Source: BFUG data collection.

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

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

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

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



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

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

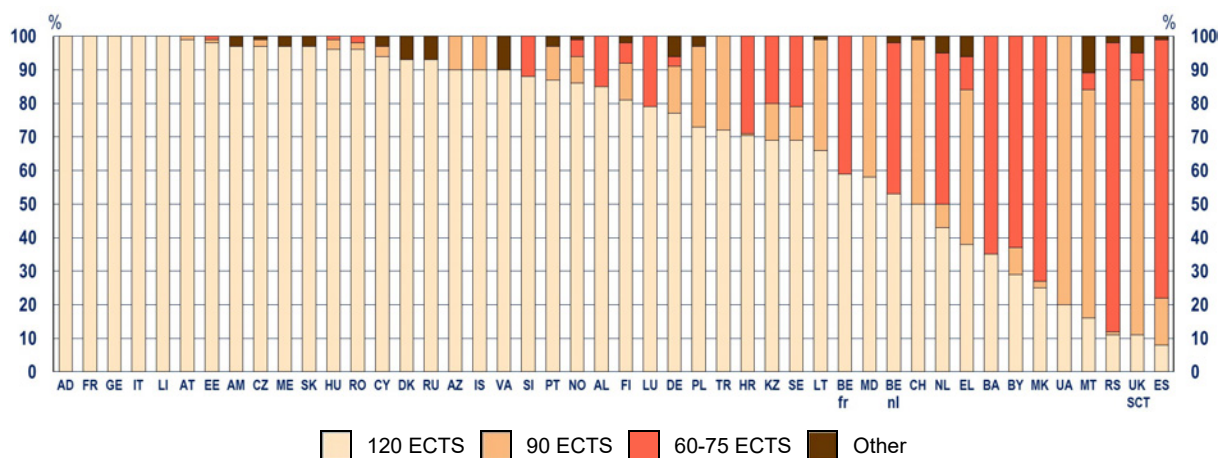
Comparison with the previous reporting (see the 2018 Bologna Process Implementation Report, p. 96) shows only minor variations in the use of different workload models in the first cycle. The most substantial changes concern Belarus and Kazakhstan, where first-cycle programmes with 'other' ECTS workload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

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

## 2.2.2. Workload of second cycle programmes

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

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



Source: BFUG data collection.

### Notes:

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

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

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

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

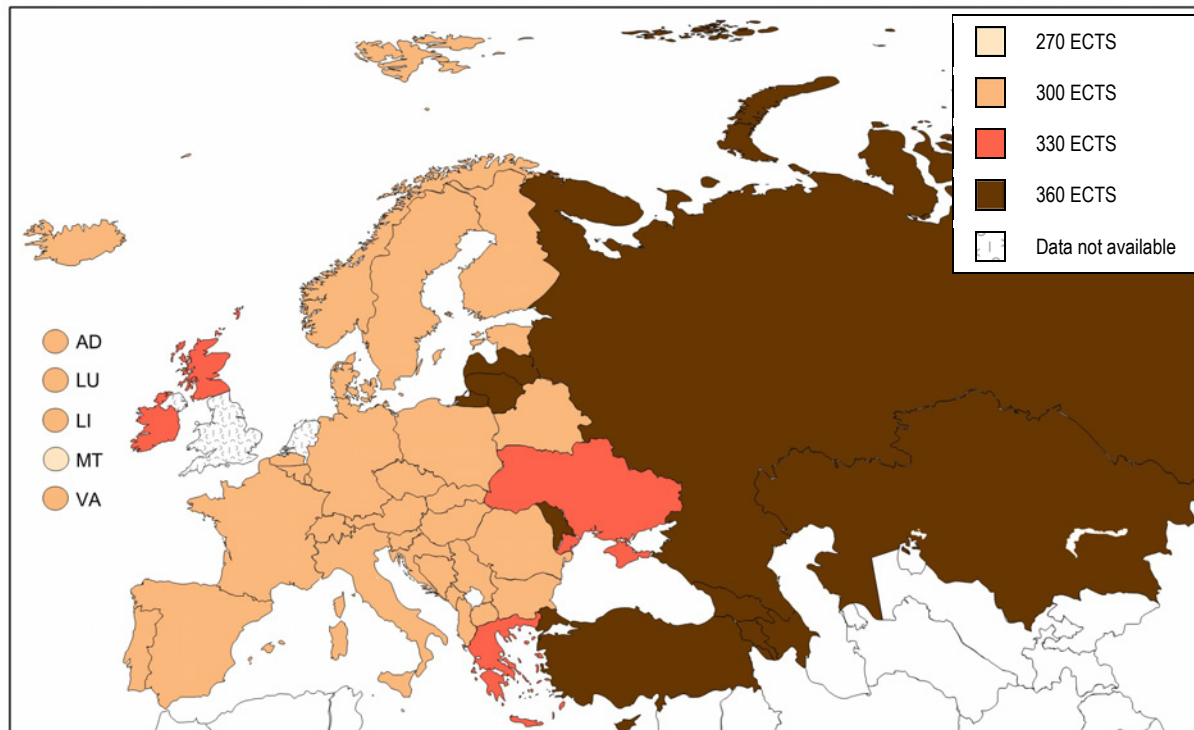
Some additional changes since the last reporting reflect differences in calculating the distribution of ECTS models across higher education programmes rather than structural reforms. For example, Malta used to include data on higher education ‘awards’, which correspond to short, accredited courses starting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

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

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

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

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



Source: BFUG data collection.

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

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

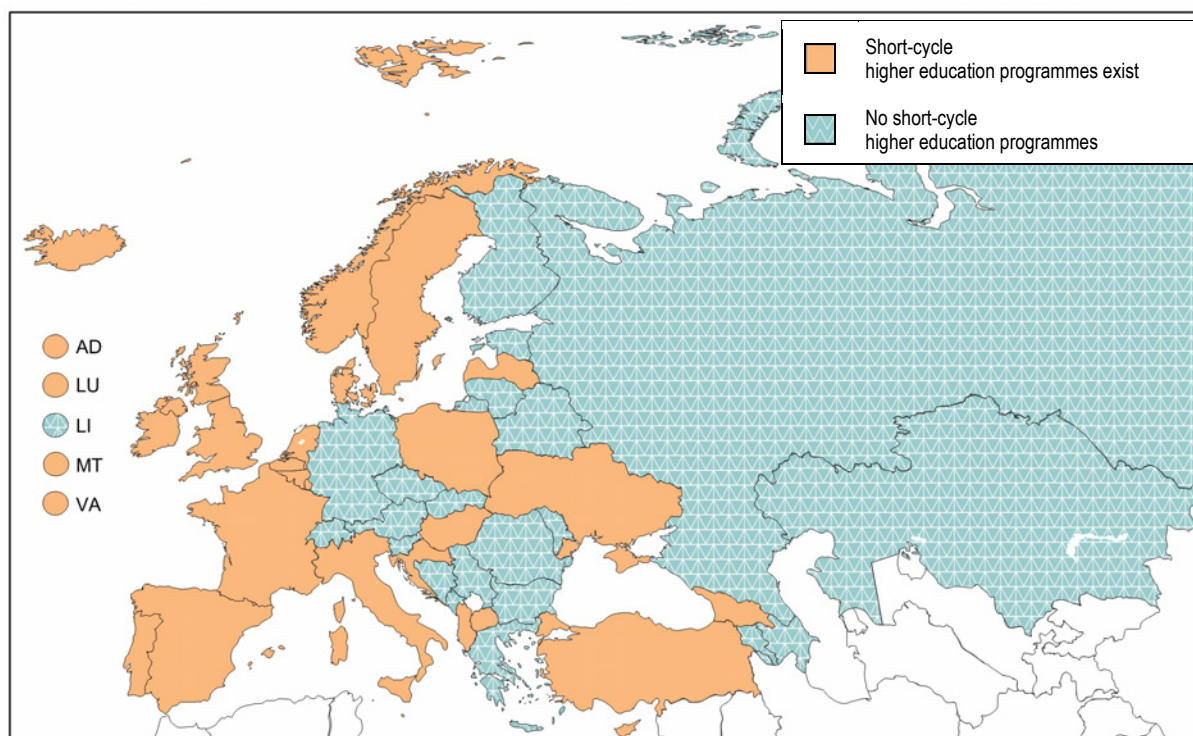
It is noteworthy that in some higher education systems, the most common combined workload is followed closely by another widespread workload pattern. For example, in the Flemish Community of Belgium, Switzerland and Denmark, the 300 ECTS pattern is only slightly more common than other workload arrangements: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

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

#### 2.2.4. Short-cycle programmes

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

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



Source: BFUG data collection.

#### Notes:

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

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

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

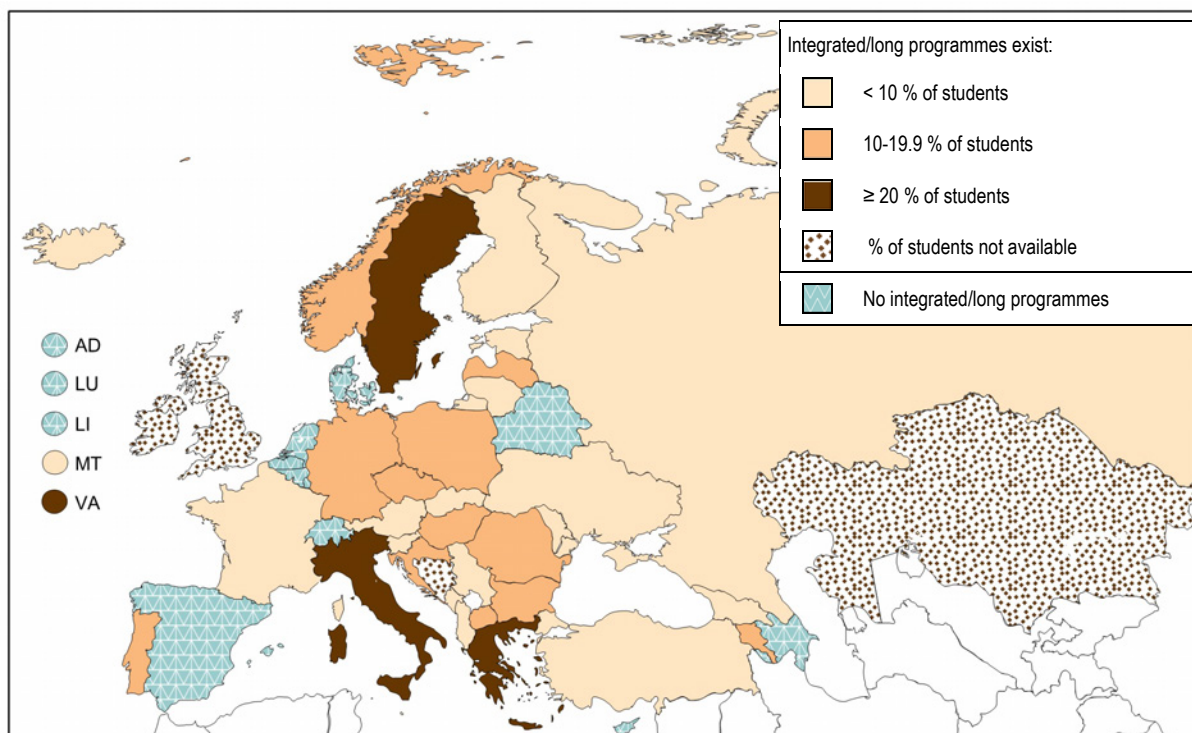
Thus alongside the three main cycles, around half of all EHEA systems offer short-cycle higher education programmes. In other EHEA systems, the short cycle is either not offered, or short-cycle programmes (ISCED 5) are not recognised within the higher education system. When not recognised as 'higher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

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

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

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

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



Source: BFUG data collection.

#### Notes:

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

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

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

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

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

## 2.2.6. Programmes outside the Bologna-degree structure

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

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

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

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

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

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

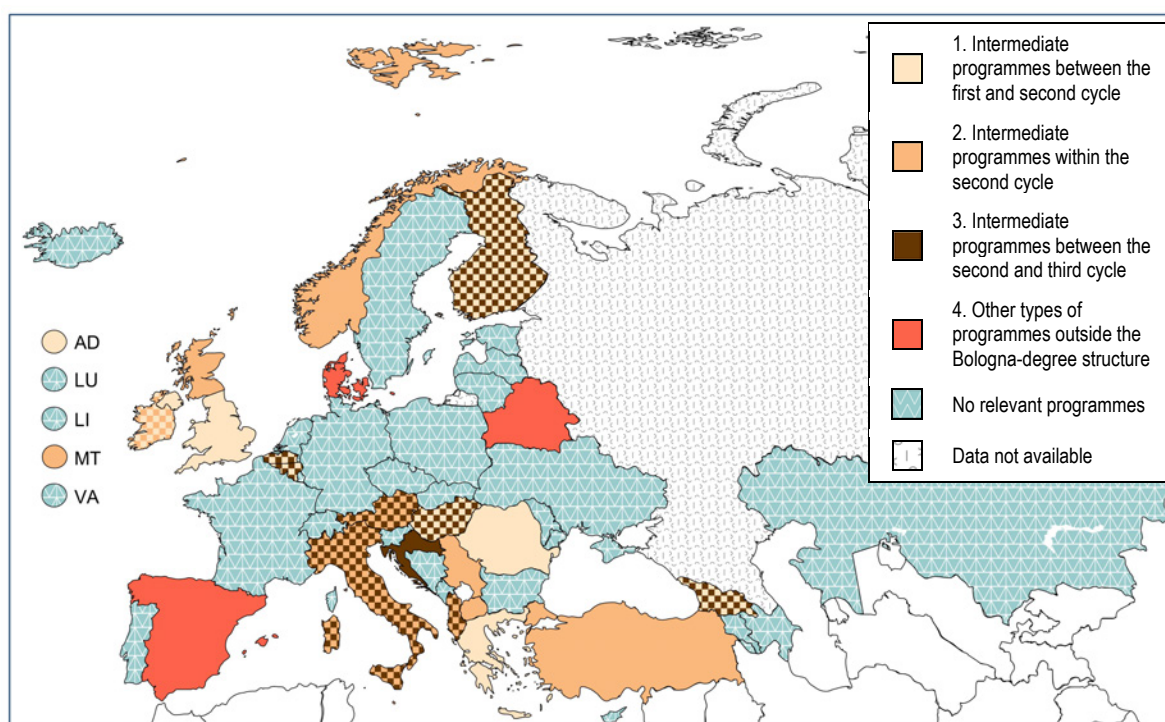
<sup>(17)</sup> In some countries, based on the recognition of prior non-formal and informal learning (RPL), there might be possibilities for graduates of these programmes to integrate third-cycle studies. However, the programmes in question are not conceived to prepare for doctoral studies. Thus, possibilities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

<sup>(18)</sup> Integrated (long) programmes are not considered here (for further details on these programmes, see Figure 3.14).

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

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

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



Source: BFUG data collection.

**Notes:**

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

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

<sup>(19)</sup> Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No. 165.

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

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

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

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

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

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

### **2.2.7. Monitoring the implementation of the ECTS system**

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

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

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



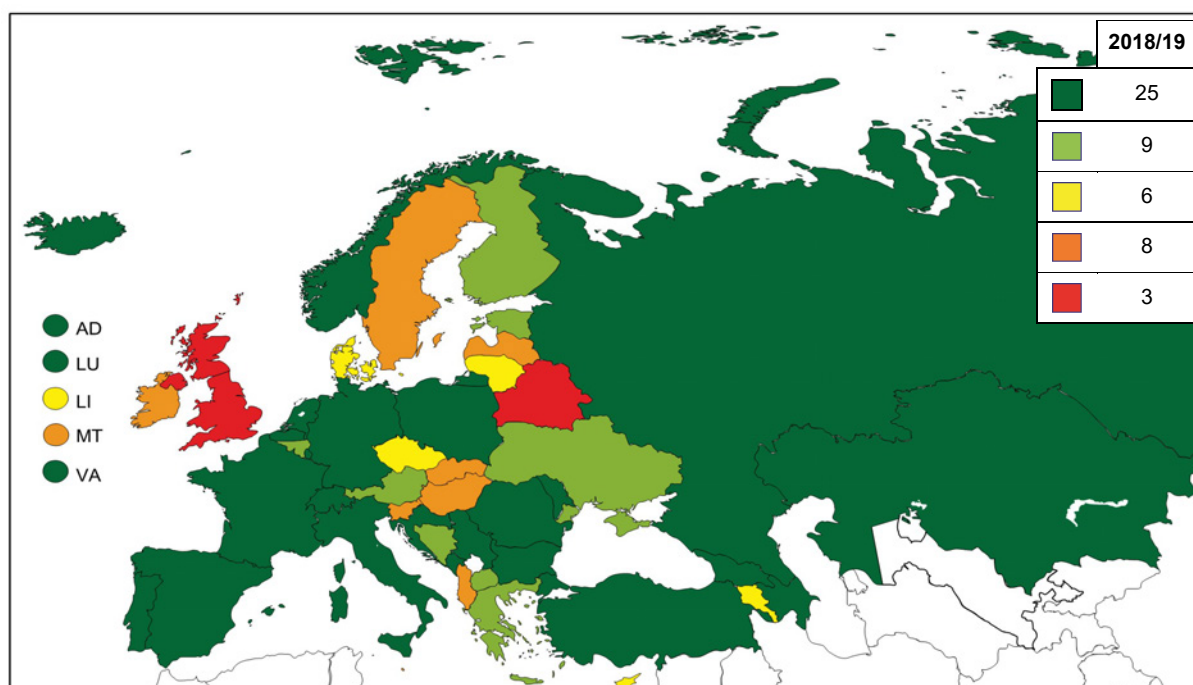
evaluation tends to check more directly defined quality aspects of individual higher education programmes and their delivery within higher education institutions.

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

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






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

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



Source: BFUG data collection.

## Scorecard categories

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

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

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

### 2.2.8. Diploma Supplement (DS)

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

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

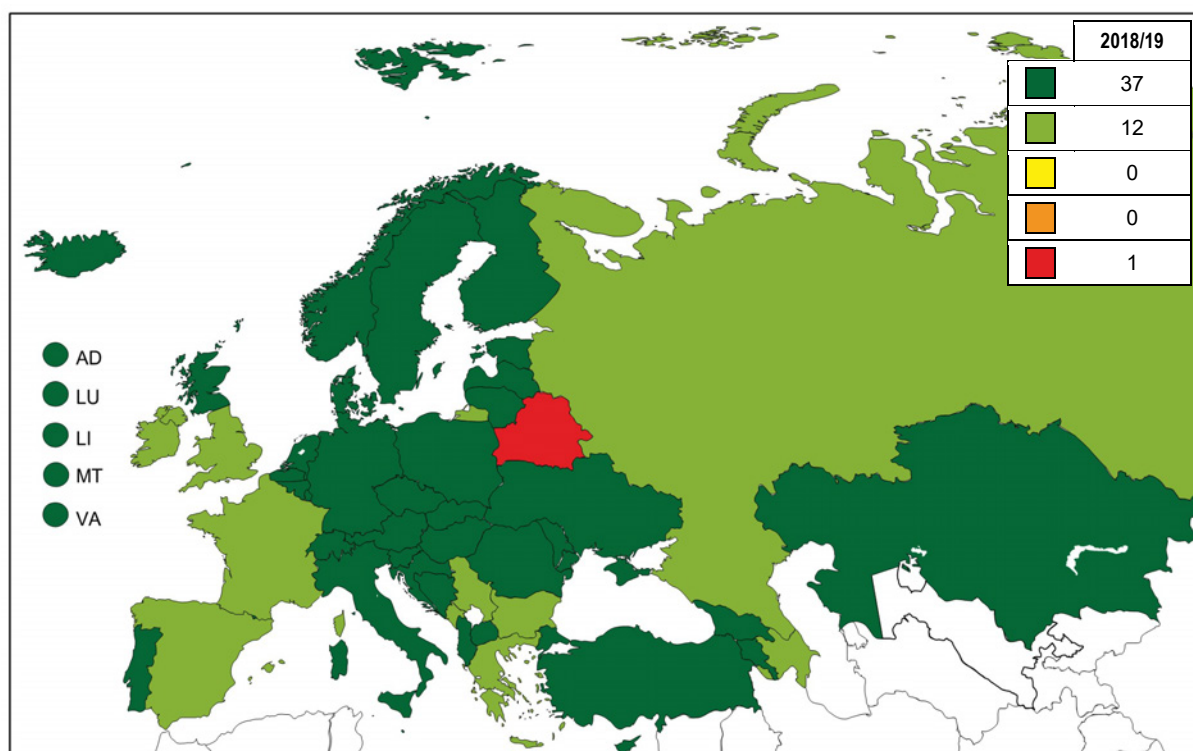
<sup>(20)</sup> Decision No 2241/2004/EC of the European Parliament and of the Council of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Europass).

<sup>(21)</sup> The Bologna Declaration of 19 June 1999.

<sup>(22)</sup> Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003.

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

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



Source: BFUG data collection.

### Scorecard categories

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

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

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

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

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

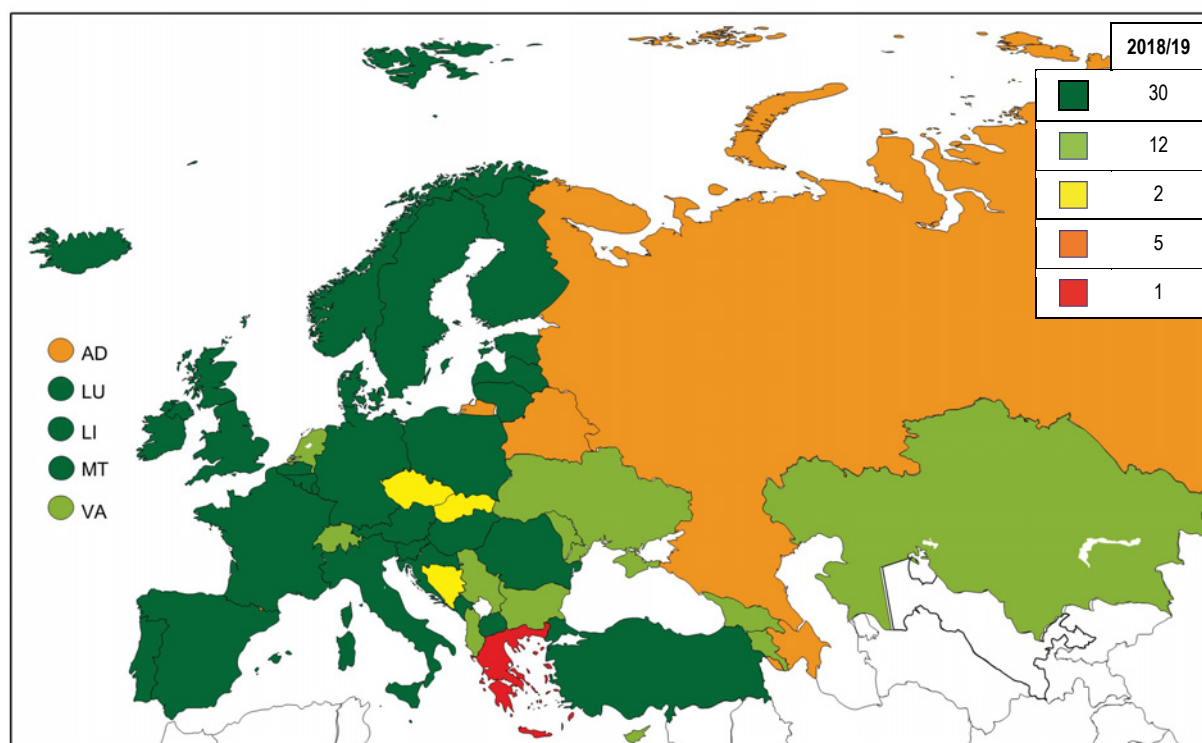
When the Diploma Supplement is issued free of charge, fees might still apply to services going beyond the standard provision. For example, in Slovenia, the Diploma Supplement is issued for free in Slovenian language and in one of the official EU languages, but for a fee in a second official EU language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

### 2.2.9. National Qualifications Frameworks (NQF)

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

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






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



Source: BFUG data collection.

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

### Scorecard categories

	<p>Steps 10-11:</p> <ul style="list-style-type: none"> <li>○ 11. Stakeholders* use the NQF (as a reference point) for at least one specific agreed purpose.</li> <li>○ 10. The NQF has self-certified its compatibility with the Qualifications Framework for the European Higher Education Area.</li> </ul>
	<p>Steps 7-9:</p> <ul style="list-style-type: none"> <li>○ 9. Qualifications have been included in the NQF.</li> <li>○ 8. Study programmes have been re-designed on the basis of the learning outcomes included in the NQF.</li> <li>○ 7. Implementation of the NQF has started with agreement on the roles and responsibilities of higher education institutions, quality assurance agency(ies) and other bodies.</li> </ul>
	<p>Steps 5-6:</p> <ul style="list-style-type: none"> <li>○ 6. The NQF has been adopted in legislation or in other high level policy fora.</li> <li>○ 5. Consultation/national discussion has taken place and the design of the NQF has been agreed by stakeholders.</li> </ul>
	<p>Step 4: The level structure, level descriptors (learning outcomes), and credit ranges have been agreed.</p>
	<p>Steps 1-3:</p> <ul style="list-style-type: none"> <li>○ 3. The process of developing the NQF has been set up, with stakeholders identified and committee(s) established.</li> <li>○ 2. The purpose(s) of the NQF have been agreed and outlined.</li> <li>○ 1. Decision to start developing the NQF has been taken by the national body responsible for higher education and/or the minister.</li> </ul>

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

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

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

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

## 2.3. Conclusions

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

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

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

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

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

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

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

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