European Commission

Modernisation of Higher Education in Europe: Academic Staff – 2017

Eurydice Report

Education and Training

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Academic Staff 2017

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

Please cite this publication as:

European Commission/EACEA/Eurydice, 2017. *Modernisation of Higher Education in Europe: Academic Staff – 2017*. Eurydice Report. Luxembourg: Publications Office of the European Union.

Printed version	EC-01-17-491-EN-C	ISBN 978-92-9492-508-4	doi:10.2797/9642
PDF	EC-01-17-491-EN-N	ISBN 978-92-9492-510-7	doi: 10.2797/408169
EPUB	EC-01-17-491-EN-E	ISBN 978-92-9492-507-7	doi: 10.2797/6688

Text completed in June 2017.

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CODES

Country codes

EU/EU-28	European Union	**NL**	Netherlands
BE	Belgium	**AT**	Austria
BE fr	Belgium – French Community	**PL**	Poland
BE de	Belgium – German-speaking Community	**PT**	Portugal
BE nl	Belgium – Flemish Community	**RO**	Romania
BG	Bulgaria	**SI**	Slovenia
CZ	Czech Republic	**SK**	Slovakia
DK	Denmark	**FI**	Finland
DE	Germany	**SE**	Sweden
EE	Estonia	**UK**	United Kingdom
IE	Ireland	**UK-ENG**	England
EL	Greece	**UK-WLS**	Wales
ES	Spain	**UK-NIR**	Northern Ireland
FR	France	**UK-SCT**	Scotland
HR	Croatia	**EFTA/EEA and candidate countries**	
IT	Italy	**BA**	Bosnia and Herzegovina
CY	Cyprus	**CH**	Switzerland
LV	Latvia	**IS**	Iceland
LT	Lithuania	**ME**	Montenegro
LU	Luxembourg	**NO**	Norway
HU	Hungary	**RS**	Serbia
MT	Malta	**TR**	Turkey

Statistical codes

:	Data not available	(–)	Not applicable

MAIN FINDINGS

This report aims to provide insight into the realities faced by higher education academic staff at a time of fast-moving change and increasing societal demand. Fluctuating student numbers, new funding and steering mechanisms are among the features of today's European higher education landscape, but not enough is known about how academic staff are affected by such changes. As academic staff are vital for the success of higher education, this report places them centre stage.

The report is divided into six chapters. An introductory chapter provides contextual information on the higher education environment. Subsequent chapters examine the qualification requirements for academic staff, the recruitment process, employment and working conditions in academia, external quality assurance procedures, and top-level strategies for internationalisation. The report also includes national diagrams showing key characteristics of academic staff categories.

The report draws on several data sources. It is based mainly on qualitative data gathered from the Eurydice National Units. This has been complemented by a range of research reports, as well as by reports and databases produced by international organisations. Information has also been collected through surveys to academic staff trade unions and quality assurance agencies. Alongside qualitative information, some chapters also include statistical data from international surveys and databases.

These main findings highlight key issues for consideration by policy makers.

Academic staff are a heterogeneous group in European higher education

- The degree of difference in academic staff categories from one country to another is a striking feature of the European higher education landscape. The national diagrams annexed to this report, while aiming to make national categories comparable, also reveal a wide range of distinctions and national variations (see Annex 1).
- Academic staff can be differentiated by a number of features: their main activities (teaching and research; teaching only or research only), the type of institution in which they work (university of other higher education institution), their contractual status (indefinite or fixed-term contracts) as well as their integration or not within a clearly defined career path (see Chapters 1, 2, 3, 4 and Annex 1).

Higher education institutions are generally responsible for their human resource policies, but some aspects are usually subject to top-level regulations

- Top-level authorities rarely develop mid or long-term national strategies for human resource planning in higher education. Most countries have delegated this responsibility to higher education institutions themselves. Where national strategies exist, they commonly cover issues such as gender distribution, and the allocation of indefinite and fixed term contracts, but may also extend to topics such as mobility, training and career structures (see Chapter 1, Section 1.2.2, Figure 1.7).
- Regulatory frameworks tend to cover staff categories that can be found in the main academic career path, in particular medium-rank and senior academics (see Chapters 2, 3 and 4).
- A range of issues may be subject to regulation, including qualification requirements, the recruitment process, working time and duties, and remuneration (see Chapters 2, 3 and 4).

- Even in highly regulated systems, higher education institutions usually have autonomy in managing some categories of academic staff. These categories are generally outside the main career path, and are often more likely to be affected by precarious employment conditions (see, in particular, Chapters 3 and 4).

Academic careers entail substantial efforts in terms of qualification upgrading and performance

- In most European countries, the doctorate is legally required for the appointment to some academic staff categories or positions, particularly at universities (see Chapter 2, Section 2.1.2, Figure 2.2 and Annex 1).
- Academics intending to progress towards intermediate and/or senior positions commonly have to comply with a range of further qualification requirements that are formalised to varying degrees (see Chapter 2, Section 2.2).
- In some higher education systems, the *habilitation* or a centrally coordinated accreditation are legally required for accessing intermediate or senior positions in academia (see Chapter 2, Section 2.2, Figure 2.3 and Annex 1).
- Nowadays, performance-related pay is possible in virtually all European higher education systems, so that efforts furnished by academics can be reflected in their remuneration (see Chapter 4, Section 4.3.1). This, however, implies that academics may be experiencing an increasing 'performance pressure' in various areas, including research, teaching or qualification upgrading.
- The efforts required of academic staff may still lead to some substantial, career-specific benefits. Indeed, in most European countries, higher education regulations stipulate the possibility for academics to take a paid sabbatical leave. While this is a rather attractive aspect of the academic profession, the opportunity to take such a leave is usually restricted to some staff categories, in particular medium-rank and senior academics (see Chapter 4, Section 4.4.2, Figure 4.7).

Guaranteed job security is no longer the norm in the academic world

- While in almost all European countries the higher education sector offers both fixed-term and indefinite job opportunities, in some countries all academics are employed on fixed-term contracts (see Chapter 4, Section 4.1.1, Figure 4.1).
- Contractual stability is largely determined by the career stage, with junior academics commonly facing more precarious employment conditions compared to their senior counterparts (see Chapter 4, Section 4.1.1 and Annex 1).
- Recent trends reported by several countries point to reduced employment opportunities in academia and an increasing proportion of staff in externally funded positions (see Chapter 4, Sections 4.1.3 and 4.5).
- However, some countries have recently implemented regulatory changes aiming to facilitate access of academics to indefinite contracts (see Chapter 4, Sections 4.1.3).
- The type of employment contract of academics as well as the ratio of permanent and temporary contracts are a focus of external quality assurance in some higher education systems (see Chapter 5, Section 5.1.2).

Gender equality remains an aspiration rather than a reality for academic staff in most higher education systems

- In the last 15 years there has been a substantial increase in the share of female academic staff, although across Europe they still make up only 40 % of the total population (see Chapter 1, Section 1.1.2, Figure 1.5).
- Moreover, the gap between men and women is greater among higher ranks, with most countries having less than one in three female professors (see Chapter 3, Section 3.4, Figure 3.5).
- Legislation and policy initiatives on gender equality affecting the recruitment of academic staff are not always in place and usually do not target the specific gender gap in higher academic ranks (see Chapter 3, Section 3.4, Figures 3.4 and 3.6). However, the diversity of approaches across Europe to tackle gender equality could be the basis for cross-fertilising initiatives.

Quality of teaching cannot be taken for granted

- PhD candidates intending to pursue a career in academia do not necessarily follow training targeting their teaching skills. Indeed, only a few countries have legislation requiring teaching practice to be a compulsory element of doctoral degree programmes. Moreover, when teaching assignments are stipulated in regulations, the obligation to teach generally applies only to some categories of PhD candidates (see Chapter 2, Section 2.1.3).
- Across Europe, there are almost no large-scale continuing professional development (CPD) programmes providing academics with the opportunity to improve their teaching skills. Most initiatives in this area are isolated activities of individual higher education institutions (see Chapter 4, Sections 4.4.1).
- The teaching workload of academics is commonly defined according to academic staff categories, with a tendency to demand more teaching from junior and middle-ranking staff, and less teaching from the most experienced (senior) academics (see Chapter 4, Section 4.2.1).
- While the quality of teaching is part of external quality assurance in all countries, a considerable variety of issues related to teaching may be the focus of evaluations in different countries (see Chapter 5, Section 5.2.1).

While external quality assurance systems focus on teaching and research, issues related to human resource management are often neglected

- Teaching and research are the most common topics examined by external quality assurance agencies – irrespective of whether this is part of programme or institutional level quality assurance procedures (see Chapter 5, Section 5.2.1, Figure 5.1).
- Topics related to human resource management (recruitment procedures, performance appraisal systems and promotion practices) are much less frequently evaluated, forming part of the framework in slightly more than half of the systems (see Chapter 5, Section 5.2.1, Figure 5.1).

If internationalisation is to be an important feature of higher education systems, more incentives are needed for academic staff

- The majority of European higher education systems have defined strategic objectives related to the internationalisation of higher education (see Chapter 6, Figure 6.1). However while academic staff have a major responsibility to take forward these objectives, they tend to be mentioned explicitly only in relation to mobility. Even when this is the case, numerical targets for staff mobility rarely exist (see Chapter 6, Section 6.1.2).
- On the other hand, most systems report that they have put in place some form of monitoring of staff mobility flows (see Chapter 6, Figure 6.4). Monitoring is based on a variety of definitions that could be either limited to the definitions used by the Erasmus+ programme or could distinguish between other types of mobility with different objectives and duration (see Chapter 6, Section 6.2.1).
- While around half of the countries provide central level support for joint international programmes, and teaching in foreign languages at home institutions, incentives for staff to develop Massive Open Online Courses (MOOCs) are much less common (see Chapter 6, Figure 6.5).

There is a need for improved information gathering on a number of aspects related to academic staff to inform national and European policy-making

- The extent to which top-level authorities monitor employment and working conditions of academics varies from one country to another – some top-level authorities monitoring a wider range of aspects compared to others (see Chapter 4, Section 4.5, Figure 4.8).
- There is also a lack of comparable European statistics on academic employment and working conditions, including on staff contracts and on the proportion of staff working in externally-funded positions. Establishing comparable data in these areas would require an investment in the development of commonly shared concepts and definitions (see Chapter 4, Sections 4.1.1 and 4.5).

INTRODUCTION

In recent years, the higher education sector has been subject to profound changes. Influenced by national and international developments, the sector has both expanded and altered. Alongside the growth in student numbers and diversity, the sector has become increasingly differentiated, both in terms of institutions and programmes. While public authorities still have a crucial role in regulating and co-ordinating higher education provision, there has been a gradual shift away from rigorous central control towards new forms of steering and influence, in particular through new funding models and quality assurance systems. The Bologna Process has also contributed to structural changes in the sector, particularly with regard to curricular reforms, quality assurance and mobility (European Commission/EACEA/Eurydice 2015). The changes pertained to specialisations, expectations, work roles and statuses of academic staff, creating a need to investigate the academic profession across different countries, cultures and institutions.

Within the above context, the higher education profession has received explicit policy attention. The Commission's modernisation agenda for higher education ([1]) recognises that 'the reform and modernisation of Europe's higher education depends on the competence and motivation of teachers and researchers' (European Commission, 2011a, p. 5). Yet, the agenda acknowledges that 'teaching and research staffing has often not kept pace with expanding student numbers which puts pressure on already strained capacities' (ibid., p. 5). Thus, it calls for 'better working conditions including transparent and fair recruitment procedures ([2]), better initial and continuing professional development, and better recognition and reward of teaching and research excellence' (ibid., p. 5). It also highlights the need for sufficient institutional autonomy, enabling higher education institutions to attract and retain the best teaching and research staff. Moreover, the agenda pays special attention to international networking, promoting mobility opportunities for academic staff.

Against this policy background, the present report gathers information on key issues related to the evolving reality of academic staff in Europe.

Content of the report

The report is structured in six chapters:

Chapter 1 provides contextual information that aims to help the reader to understand the environment in which academic staff in Europe operate today. Background statistical indicators set the scene for qualitative investigation in the comparative report. The statistical data focuses on participation of students and staff, and the characteristics of the academic staff body, while qualitative indicators capture issues relating to higher education governance.

Chapter 2 examines qualification requirements of academic staff. Following a career development perspective, the chapter starts by looking at the doctoral degree, enquiring about the status of doctoral candidates, the role of the doctorate in an academic career and the content of doctoral training. It then considers career progression in academia, looking, in particular, at procedures through which academics become recognised members of their community.

Chapter 3 deals with the recruitment of academic staff. It examines the scope and coverage of legislation on the matter, the main methods used for recruitment, selected aspects of the recruitment process, and the degree of involvement of top-level authorities.

([1]) Launched in 2011 by the Commission's Communication 'Supporting growth and jobs – An Agenda for the Modernisation of Europe's Higher Education Systems' (European Commission, 2011a).

([2]) Including in line with the 'European Charter for Researchers and Code of Conduct for their Recruitment'.

Chapter 4 discusses selected aspects of employment and working conditions in academia, looking, in particular, at job security of academics, their duties and working time, remuneration arrangements, as well as opportunities for continuing professional development (CPD). The chapter also enquires about the extent to which top-level authorities monitor employment and working conditions in academia.

Chapter 5 explores which issues related to academic staff are assessed in the framework of external quality assurance. It also broadly addresses quality assurance at institutional level, in particular focusing on evaluation mechanisms related to academic staff.

Finally, **Chapter 6** provides information about the content of top-level strategies for internationalisation. It also reviews the mechanisms and definitions for the monitoring of staff mobility and analyses central measures to support specific internationalisation actions.

Annex 1 contains national diagrams outlining for each system the main categories of academic staff, their key characteristics, and typical career paths.

Annex 2 contains country examples of large-scale programmes to facilitate outgoing and incoming academic staff mobility.

A Glossary explains the key concepts used.

Data sources and methodology

Eurydice data and indicators

The report is mainly based on information gathered by the Eurydice Network in March and April 2016. The Eurydice data collection was based on an in-depth questionnaire prepared jointly by Erasmus+: Education and Youth Policy Analysis – a unit of the Education, Audiovisual and Culture Executive Agency (EACEA), and the National Units of the Network. It involved 38 Eurydice National Units ([3]), representing 35 countries ([4]).

The aim of the Eurydice data collection was to explore the most representative national categories of academic staff. The data collection concentrated on staff primarily responsible for teaching and/or research. Staff responsible for the management and/or coordination of employees, projects and/or finances at the institution, as well as administrative or other support staff (e.g. librarians, expert counsellors, etc.), were not covered.

The Eurydice data collection included academic staff working in public and publicly-subsidised private higher education institutions providing programmes situated at ISCED 2011 levels 5-8 (see the Glossary). The institutions considered were universities, universities of applied sciences and other higher education institutions (see the Glossary) ([5]). Upper secondary schools providing higher education programmes and private higher education institutions receiving less than 50 % of their core funding from public sources were not considered.

([3]) The number of National Units is higher that the number of countries. Belgium is covered by three Eurydice Units (French Community of Belgium, Flemish Community of Belgium and German-speaking Community of Belgium) and the United Kingdom by two Units (one covering England, Wales and Northern Ireland, and another one covering Scotland).

([4]) All EU Member States are included as well as Bosnia and Herzegovina, Switzerland, Iceland, Montenegro, Norway, Serbia and Turkey. The National Units from Liechtenstein and the Former Yugoslav Republic of Macedonia did not participate.

([5]) When referring to higher education systems with several sectors governed by different regulatory frameworks (e.g. universities and universities of applied sciences), the Eurydice indicators concentrate on the university sector. Substantial regulatory differences between different higher education sectors are outlined in country-specific notes and in the text.

The Eurydice qualitative data and indicators capture the content of top-level regulations or the existence of large-scale publicly subsidised programmes/actions coordinated by top-level authorities (see the Glossary). They generally do not cover local initiatives and schemes, meaning that programmes or regulations of individual higher education institutions are not included.

The reference year for most Eurydice indicators is the 2015/16 academic year.

Data from other sources

Throughout the report, the information submitted by Eurydice National Units was complemented by data from other sources. These include a range of research and policy reports, data from previous Eurydice studies, as well as the outcomes of two qualitative surveys capturing, respectively, the view of trade unions ([6]) and quality assurance agencies ([7]).

Alongside qualitative information, some chapters also include statistical data from international surveys, namely data from the UNESCO/OECD/Eurostat (UOE) data collection, the European Tertiary Education Register (ETER) ([8]), and the EUROAC ([9]) and the Eurodoc ([10]) studies.

Preparation of the report

The preparation and drafting of the report was coordinated by the Erasmus+ unit (see above). The draft version of the report was submitted to Eurydice National Units for comments and validation in December 2016.

All those who have contributed are acknowledged at the end of the report.

([6]) Information was collected in cooperation with Education International, with 16 countries supplying data: Denmark, Germany, Estonia, Ireland, France, Italy, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Finland, Sweden, the United Kingdom and Norway.

([7]) Information was collected in cooperation with the European Association for Quality Assurance in Higher Education (ENQA). 18 quality assurance agencies (QAAs) from 14 countries responded to the survey: Belgium (French and Flemish Communities), Bulgaria, the Czech Republic, Germany, Spain, France, Croatia, Lithuania, the Netherlands, Portugal, Romania, Finland, the United Kingdom and Norway.

([8]) The European Tertiary Education Register (ETER) is a database of higher education institutions in Europe. See: https://www.eter-project.com/ [Accessed 15 May 2017].

([9]) The EUROAC study provided consolidated data for European countries from two separate projects: the 'Changing Academic Profession' (CAP) survey undertaken between 2007-2008 (2010 in the Netherlands) in 18 countries, including seven European countries (Germany, the Netherlands, the United Kingdom, Finland, Italy, Norway and Portugal); and the EUROAC survey that was undertaken in 2010 and provided data for additional five European countries (Austria, Croatia, Ireland, Poland and Switzerland). While both CAP and EUROAC included a questionnaire survey, the EUROAC study also included interviews with academics (Teichler & Höhle, 2013). Despite the fact that the EUROAC study was conducted almost a decade ago, its results are used in this report to complement the regulatory perspective and illustrate some patterns. This is because no comparable large-scale European survey has been conducted since this project.

([10]) The Eurodoc survey was conducted in 2008-2009 in 12 European countries, namely Belgium, Germany, Spain, France, Croatia, the Netherlands, Austria, Portugal, Slovenia, Finland, Sweden and Norway (Ateş et al., 2011). Despite the fact that the survey was conducted almost a decade ago, its results are used in this report to complement the regulatory perspective and illustrate some patterns. This is because no comparable large-scale European survey has been conducted since this project.

CHAPTER 1: ACADEMIC STAFF IN A CHANGING HIGHER EDUCATION LANDSCAPE

This chapter aims to provide contextual information to help the reader understand the environment in which academic staff in Europe operate today, and the main trends which have had an impact on shaping the higher education landscape. The first section sets the scope of how academic staff are defined and considered throughout the report. It also includes statistical data showing the trends in participation of students and the development in academic staff numbers, as well as some characteristics of the academic staff body. The second section presents qualitative information on issues relating to higher education governance.

1.1. Understanding academic staff

Defining the concept of academic staff in higher education may at first sight seem to be a relatively straightforward issue. Rather as the word 'teacher' immediately invokes a picture of staff in school education, the notion of academic staff in higher education is also ubiquitous and likely to convey a clear image of higher education teachers and researchers. However, while the profession may be easily recognised, the fact that academic staff are to be found in every country may also obscure the reality that they are far from being a homogeneous group. Research has pointed out that academic staff may be fragmented and segmented along lines like employment status, rank, type of main activity (research, teaching, management), age and gender (Locke et al., 2011). Indeed, as society and knowledge production become more complex and specialised, demands on higher education institutions diversify and increase, and so too do the forms of academic staff and the tasks that they are required to perform.

This study is the first recent work to attempt to map a geographically complete European picture of the realities of academic staff. In order to do so the scope has necessarily been restricted to ensure some measure of comparability.

Two main functions of academic staff categories are highlighted in this report – teaching and research. Within universities, the combination of teaching and research is often understood as an essential and complementary characteristic of the institution. Academic staff are equally likely to be engaged in transmitting knowledge through teaching, as in producing new knowledge through research. Through being taught by people active in research in their subjects, students are taught in an environment where they are learning from the current practical research experience of their tutors. Research may equally well be stimulated through the process of discussing aspects with students, and considering their questions and ideas.

However, this even-handed view of the relationship between teaching and research has come under pressure as higher education systems have opened up to larger numbers of students. In one sense, this is an inevitable consequence of increasing student numbers. If the rates of students enrolling in higher education increase, the numbers of staff to teach them also need to increase, while there may not necessarily be a similar rising demand for staff to engage in research. Research literature points out that, while it is the teaching function of academic staff that has seen a clear growth in demand, many academic staff career structures continue to be biased towards research performance (Moya et al., 2015).

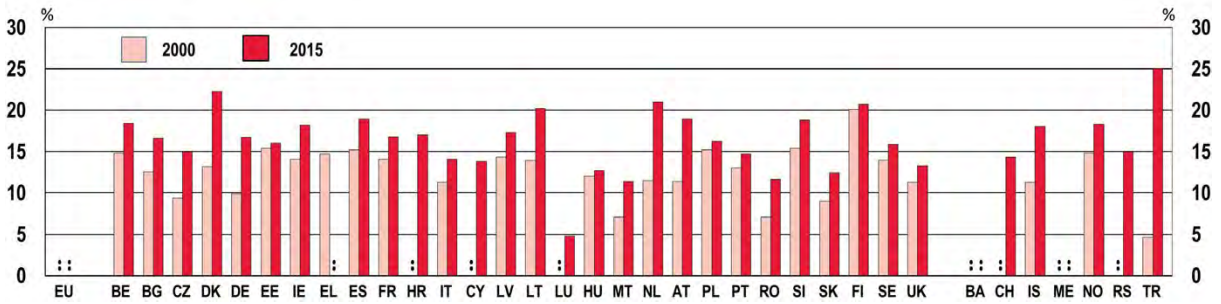
While traditional universities often emphasise the research function of academic staff, newer higher education institutions, and particularly universities of applied science, have limited research capacity and have concentrated on their teaching role. Thus the pressures of mass higher education systems have led to increasing differentiation of teaching and research roles, rather than to greater complementarity. This is reflected in many of the categories observed in the national diagrams (see Annex 1), where it is commonplace to find some categories concentrating exclusively on teaching while a smaller number of countries have academic staff categories reserved specifically for research.

1.1.1. Student and academic staff numbers

Academics in Europe work in very different contexts, and these contexts are changing over time. In order to understand the situation of academic staff in such diverse environments, it is necessary to consider a number of aspects, including changes in the student population.

Figure 1.1 looks at a proportion of 18-34-year-olds enrolled in tertiary education in 2000 and in 2015. It shows that in all countries that have data for both reference years, there has been an increase in enrolment rates. The picture is, however, uneven across countries. Turkey displays the strongest growth in enrolment rates, with around a 20 percentage point increase between 2000 and 2015. In contrast, most European countries have experienced a relatively minor increase in tertiary education enrolment (around five percentage points or less), with Denmark, Germany, the Netherlands and Austria showing the strongest growth among the EU countries (between around seven and ten percentage points).

Figure 1.1: Enrolment rates in tertiary education for 18-34-year-olds (% of the population aged 18-34), 2000 and 2015



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
2000	:	14.8	12.5	9.4	13.2	9.9	15.4	14.1	14.7	15.2	14.1	:	11.3	:	14.3	13.9	:	12.0
2015	:	18.4	16.6	15.0	22.3	16.7	16.0	18.2	:	18.9	16.8	17.0	14.1	13.8	17.3	20.2	4.8	12.7
%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	ME	NO	RS	TR
2000	7.1	11.5	11.4	15.2	13.0	7.1	15.4	9.0	20.1	14.0	11.3	:	:	11.3	:	14.8	:	4.6
2015	11.4	21.0	18.9	16.2	14.7	11.6	18.8	12.4	20.7	15.9	13.3	:	14.3	18.0	:	18.3	15.0	25.0

Source: Eurostat (UOE data collection and population statistics). Online data codes: *educ_enrl1tl; educ_uoe_enrt02; demo_pjan; demo_pjangroup* (data extracted June 2017). Calculated by Eurydice.

Explanatory notes

Data referring to 2000 covers ISCED 1997 levels 5-6. Data referring to 2015 covers ISCED 2011 levels 5-8.

Data covers all types of institutions (i.e. public, private government dependent and private government independent).

Country-specific notes

Estonia: The 2015 figure was calculated using demographic data that indicate break in time series.
Ireland: The 2015 figure was calculated using provisional demographic data.
France: The 2015 figure was calculated using provisional demographic data that indicate break in time series.
Portugal, Romania and **United Kingdom**: The 2015 figure was calculated using estimated demographic data.

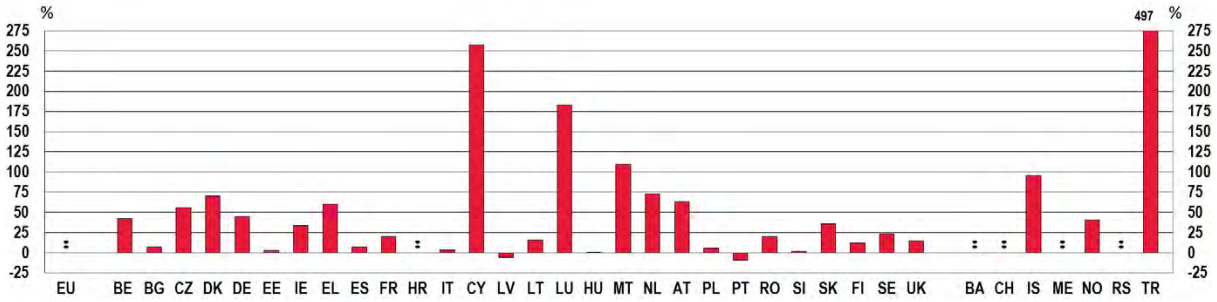
However, countries with similar growth in enrolment rates may have experienced quite different realities. Indeed, while not depicted by a dedicated figure, Eurostat data indicate ([1]) that around two-thirds of European countries have experienced a decrease of the population in the age group 18-34 between 2000 and 2015. Thus an increase in enrolment rates might be explained, for example, by maintaining constant numbers of student enrolments at a time when the age cohort is declining. On the other hand, some countries have experienced an expansion of the population in the relevant age

([1]) For more details, see the Eurostat website, online codes: *demo_pjan* and *demo_pjangroup* [Accessed 6 June 2017].

group (e.g. Belgium, Cyprus, Luxembourg, Malta, Finland, Sweden, the United Kingdom, Iceland, Switzerland, Norway and Turkey), meaning that behind an increased participation in tertiary education, there is a higher number of student enrolments.

Figure 1.2 complements the above picture by looking at the percentage change in the total number of students enrolled in tertiary education between 2000 and 2015. The diversity of national situations is particularly striking. Turkey far exceeds other countries in terms of increasing student numbers, with an increase of almost 500 % (around one million students in 2000 and around six million in 2015). Significant growth has also taken place in four smaller countries, namely Cyprus, Luxembourg, Malta and Iceland. As noted previously, all the above countries have experienced an increase in enrolment in tertiary education as well as an expansion of the population in the age group 18-34. Other countries displaying a relatively strong increase in student numbers (more than 50 % between 2000 and 2015) are the Czech Republic, Denmark, Greece, the Netherlands and Austria.

Figure 1.2: Percentage change in the total number of students enrolled in tertiary education between 2000 and 2015



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
2000-2015	:	41.9	6.7	55.9	70.0	44.9	3.0	33.6	60.4	7.4	20.3	:	3.2	256.9	-5.9	15.4	183.0	0.2
2000-2005	:	9.5	-9.0	32.6	25.9	10.4	26.4	16.2	53.1	-1.1	8.5	:	13.8	92.8	43.3	60.3	:	42.0
2005-2010	7.1	14.3	20.7	30.0	3.6	12.6	1.8	4.0	-0.7	3.8	2.6	11.3	-1.7	60.5	-13.9	3.1	:	-10.8
2010-2015	-2.3	13.3	-2.8	-9.6	30.4	16.5	-20.0	10.6	5.5	4.5	8.0	8.1	-7.8	15.3	-23.7	-30.2	:	-20.9
%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	ME	NO	RS	TR
2000-2015	109.3	72.8	63.1	5.4	-9.7	19.7	2.1	35.7	12.0	23.5	15.1	:	:	95.9	:	40.5	:	497.1
2000-2005	49.5	15.9	-6.4	34.1	1.9	63.2	33.9	33.5	13.3	23.0	13.0	:	:	56.9	:	12.0	:	107.4
2005-2010	14.8	15.2	43.3	1.4	0.7	35.3	2.4	29.3	-0.8	6.6	8.4	:	24.5	19.0	:	5.0	:	67.6
2010-2015	21.9	29.5	21.6	-22.5	-12.0	-45.8	-25.5	-21.4	-0.4	-5.8	-6.0	:	18.4	4.9	:	19.4	:	71.8

Source: Eurostat (UOE data collection). Online data codes: *educ_enrl1at; educ_uoe_enrt01* (data extracted June 2017). Calculated by Eurydice.

Explanatory notes

Data referring to 2000 covers ISCED 1997 levels 5-6. Data referring to 2015 covers ISCED 2011 levels 5-8.

Data covers all types of institutions (i.e. public, private government dependent and private government independent).

Country-specific note

Greece: The indicator (2000-2015 and 2010-2015) was calculated using 2015 estimated enrolment numbers.

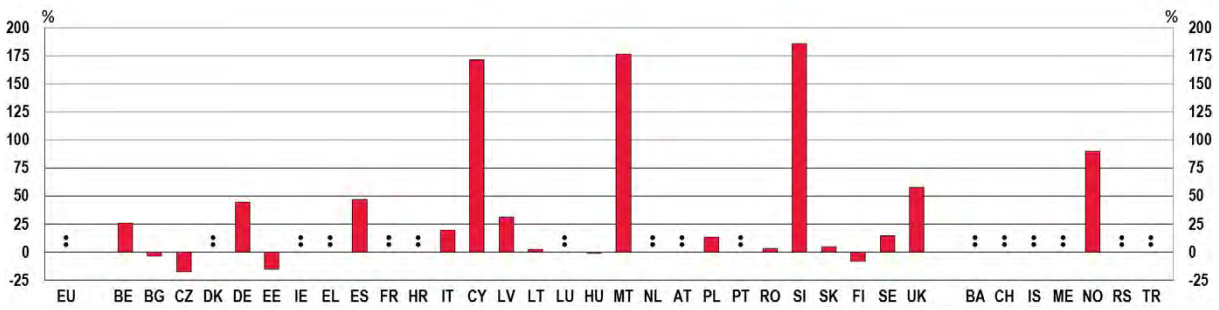
The table related to Figure 1.2 provides more details on trends in student numbers, dividing the main reference period into three sub-periods (2000-2005, 2005-2010 and 2010-2015). These data reveal a more nuanced picture behind the general growing pattern of student numbers. Indeed, many countries have registered more or less significant declines in student numbers over the 15-year period.

The first period (2000-2005) was a period of growth in general, with only three countries – Bulgaria, Spain and Austria – experiencing a decline in student numbers. Five others – Greece, Italy, Latvia,

Hungary and Finland – experienced a drop in student numbers between 2005 and 2010. However, it is between 2010 and 2015 that many more countries experienced a fall in student numbers. This is the case for Bulgaria, the Czech Republic, Estonia, Italy, Latvia, Lithuania, Hungary, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom. For most of these countries, a decline in student numbers is likely to reflect, among other factors, demographic trends, i.e. a decrease of the population of tertiary education age.

Figure 1.3 indicates the percentage change in the number of academic staff during the same period, i.e. between 2000 and 2015. In spite of its limited country coverage, the figure points to some noteworthy patterns. It shows that in most countries (among those for which data is available), there has been an increase in the number of academic staff, while in five – Bulgaria, the Czech Republic, Estonia, Hungary and Finland – there has been a decrease. In percentage terms, the greatest increases in staff numbers occur in three of Europe's smallest countries – Cyprus, Malta and Slovenia.

Figure 1.3: Percentage change in the total number of academic staff between 2000 and 2015



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
2000-2015	:	25.8	-3.6	-17.5	:	44.5	-15.3	:	:	46.7	:	:	19.8	171.4	31.2	2.7	:	-1.0
2000-2005	:	13.3	-14.3	21.4	:	4.8	:	:	:	35.4	16.3	:	25.7	34.1	20.2	3.4	:	19.6
2005-2010	:	12.3	-1.2	-31.5	:	28.3	:	8.4	:	7.1	-17.5	79.4	12.4	75.9	10.5	7.3	:	-3.2
2010-2015	:	-1.2	13.8	-0.8	:	7.5	:	-26.7	:	1.1	:	2.5	-15.2	15.0	-1.3	-7.4	-23.0	-14.4

%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	ME	NO	RS	TR
2000-2015	176.5	:	:	13.3	:	2.9	185.7	4.6	-8.3	14.3	57.4	:	:	:	:	89.6	:	:
2000-2005	39.6	:	:	10.7	:	14.4	79.6	4.1	14.7	26.2	29.6	:	:	6.8	:	:	:	:
2005-2010	46.3	15.7	:	7.8	-1.5	0.8	55.2	4.9	-17.2	-22.6	14.8	:	16.9	18.2	:	:	:	28.4
2010-2015	35.4	21.1	30.5	-5.1	:	-10.7	2.4	-4.2	-3.6	17.0	5.8	:	-16.5	:	:	27.0	:	:

Source: Eurostat (UOE data collection). Online data codes: *educ_pers1d; educ_uoe_perp01* (data extracted June 2017). Calculated by Eurydice.

Explanatory notes

Data referring to 2000, 2005 and 2010 covers ISCED 1997 levels 5-6. Data referring to 2015 covers ISCED 2011 levels 5-8.

Data covers all types of institutions (i.e. public, private government dependent and private government independent).

Within the UOE data collection (UNESCO-UIS/OECD/Eurostat, 2016, p. 42), the concept of academic staff includes:

- Personnel employed at the tertiary level of education whose primary assignment is instruction or research;
- Personnel who hold an academic rank with such titles as professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of these academic ranks;
- Personnel with other titles (e.g. dean, director, associate dean, assistant dean, chair or head of department), if their principal activity is instruction or research.

According to the UOE manual (ibid., p. 40) each staff member should be counted once only in the data collection. If staff are assigned to more than one level or if they have more than one contract, their numbers should be pro-rated according to the percentage of contractual working hours devoted to each programme, level or grade during the reference academic year. Where this information is unknown, staff should be pro-rated in equal shares to each programme, level or grade to which they are assigned during the reference year.

Country-specific notes

France and **Portugal**: 2015 data were excluded from calculations. This is due to the fact that definitions differ, which implies a break in time series.

The evolution of staff numbers during the three sub-periods – 2000-2005, 2005-2010 and 2010-2015 – reflects, to a large extent, the evolution in student numbers. Indeed, between 2000 and 2005, only one country – Bulgaria – experienced a decrease in academic staff numbers. During the following period (2005-2010), a decline was recorded in seven countries, whereas between 2010 and 2015, 12 countries experienced a falling off of staff numbers.

However, the above pattern does not imply that the evolution of staff numbers is always (fully) aligned with the evolution of the student body. For example, the three countries that have experienced the greatest increase in staff numbers over the period 2000-2015, have faced different realities in terms of the evolution of their student population. Indeed, while both Cyprus and Malta have seen a strong increase in their student numbers, Slovenia has witnessed a different situation. More specifically, in Slovenia, the student body increased in the first period (2000-2005), then stagnated, and then dropped, whereas staff numbers kept growing in the first two periods and then stagnated. Furthermore, some countries that have experienced an increase in the total number of students between 2000 and 2015, have experienced a decrease in the total number of staff during the same period (e.g. Bulgaria, the Czech Republic, Estonia and Finland). On the other hand, in Latvia, staff numbers have increased, while student numbers have dropped. Although it is difficult to draw strong conclusions from these differing patterns without more information on countries' contexts, the data seems to indicate that staff numbers do not adapt quickly to the changing reality of student numbers. Indeed, staff numbers often move along a different path to student numbers, or follow changes in student numbers with a time lag.

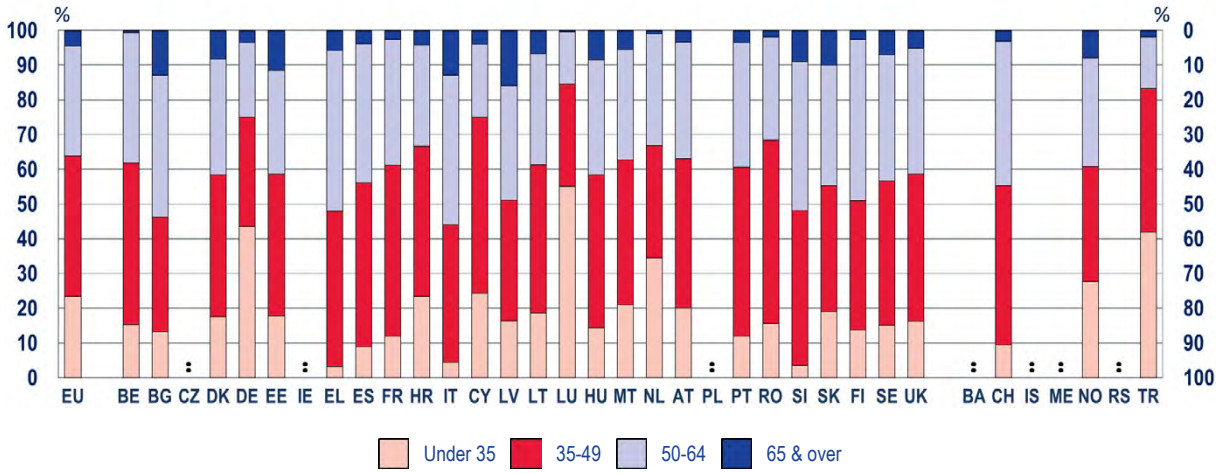
1.1.2. Characteristics of academic staff

Following the analysis of the environment in which academics operate, this section presents some general characteristics of the academic staff population. Quantitative indicators presented show the age and gender profiles of academic staff, as well as the share of staff in professorial positions.

Figure 1.4 divides the academic staff population into four age groups: those under 35, between 35 and 49, between 50 and 64, and 65 and over. It shows quite a heterogeneous distribution of these age ranges between countries, which could partly reflect diverse academic staffing traditions.

While the EU average for staff under 35 is 23.5 %, four Member States (Greece, Spain, Italy and Slovenia) plus Switzerland, have fewer than 10 % of their academic staff population within this age group. On the other hand, in Germany, Luxembourg and Turkey, young academics represent a rather substantial proportion of the academic staff body (between around 40 % and 55 %). In most countries, the largest share of academic staff is concentrated in the 35-49 age group – the group that represents, depending on the country, between around one third and half of all academics. The 50-64 age group if often more significant than the under 35s, but less important than the age group 35-49 (this applies to around two-thirds of all European countries). Yet, the share of 50-64-year-olds is still relatively high (40 % or more) in Bulgaria, Greece, Spain, Italy, Slovenia, Finland and Switzerland. Unsurprisingly, the proportion of staff aged 65 and over is relatively low, with the EU average at 4.5 %. However, in five countries – Bulgaria, Estonia, Italy, Latvia and Slovakia – the proportion is equal to or exceeds 10 %. All these countries have a relatively low share of staff in the category under 35, which could signal some difficulties in the generational renewal of the academic staff population.

Figure 1.4: Academic staff by age groups (%), 2015



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
< 35	23.5	15.4	13.3	:	17.7	43.6	17.8	:	3.3	8.9	12.0	23.5	4.6	24.4	16.5	18.7	55.2	14.4
35-49	40.3	46.6	33.0	:	40.8	31.5	40.9	:	44.7	47.3	49.1	43.2	39.6	50.6	34.9	42.7	29.5	44.1
50-64	31.7	37.4	40.9	:	33.3	21.5	29.8	:	46.2	40.0	36.4	29.1	43.0	21.0	32.9	32.0	14.9	33.1
≥ 65	4.5	0.6	12.8	:	8.2	3.5	11.5	:	5.7	3.8	2.5	4.2	12.8	3.9	15.8	6.6	0.4	8.4
%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	ME	NO	RS	TR
< 35	21.0	34.6	20.1	:	11.9	15.8	3.6	19.2	13.8	15.2	16.2	:	9.5	:	:	27.9	:	42.0
35-49	41.9	32.3	43.0	:	48.7	52.7	44.6	36.2	37.3	41.6	42.5	:	45.9	:	:	33.0	:	41.4
50-64	31.8	32.3	33.7	:	35.8	29.6	42.8	34.6	46.3	36.3	36.2	:	41.5	:	:	31.3	:	14.8
≥ 65	5.3	0.9	3.2	:	3.5	1.9	8.9	10.0	2.6	7.0	5.0	:	3.1	:	:	7.9	:	1.8

Source: Eurostat (UOE data collection). Online data code: *educ_uoe_perp01* (data extracted March 2017). Calculated by Eurydice.

Explanatory notes

The reference year of the figure is 2015. Countries for which 2015 data was not available are represented by 2014 data (see Country-specific notes).

Data refers to academic staff at ISCED 2011 levels 5-8. It covers all types of higher education institutions (i.e. public, private government dependent and private government independent).

For the definition of academic staff within the UOE data collection, see Figure 1.3.

Country-specific notes

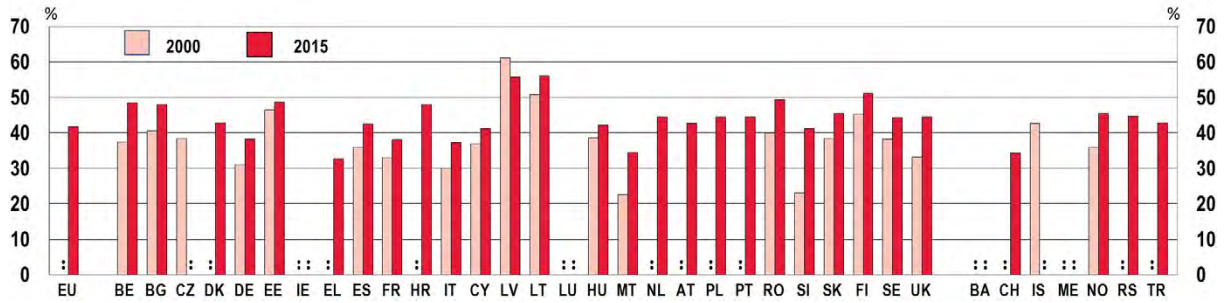
EU, Denmark, Greece, Luxembourg, United Kingdom, Switzerland and **Turkey**: Reference year of data is 2014.
Czech Republic: Country was excluded from the figure as the majority of academic staff (almost 90 %) was reported under the category of 'unknown age'.

Figure 1.5 shows the gender distribution among academic staff. It indicates that in 2015, across the EU, females represented around 40 % of the academic staff profession. There are, however, substantial cross-country differences. The countries with the lowest proportion of female academic staff are Greece (32.7 %), Malta (34.4 %) and Switzerland (34.3 %), while those registering the highest proportion (more than 50 %) are Latvia (55.7 %), Lithuania (56.1 %) and Finland (51.1 %).

Comparison between 2000 and 2015 shows a rather clear pattern: nowadays, females are more represented in academia than 15 years ago. In most countries, the increase is situated between around two and twelve percentage points, Slovenia showing the highest increase (18 percentage points). Among countries for which data is available, Latvia is the only one registering a decrease in the proportion of females between 2000 and 2015 (around six percentage points). However, in Latvia, females count for more than half of all academics and, already in 2000, their proportion was particularly high.

Figure 1.5 can be complemented by more differentiated data presented in Chapter 3 (see Section 3.4, Figure 3.5), looking at the proportion of women not only among the academic staff population, but also among professors.

Figure 1.5: Female academic staff (%), 2000 and 2015



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
2000	:	37.4	40.5	38.4	:	31.0	46.4	:	:	36.0	33.0	:	30.0	37.0	61.2	50.8	:	38.5
2015	41.6	48.6	48.1	:	42.8	38.2	48.7	:	32.7	42.5	38.0	48.0	37.3	41.1	55.7	56.1	:	42.1
%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	ME	NO	RS	TR
2000	22.5	:	:	:	:	39.8	23.1	38.4	45.3	38.3	33.1	:	:	42.6	:	35.9	:	:
2015	34.4	44.4	42.7	44.4	44.4	49.4	41.1	45.4	51.1	44.3	44.4	:	34.3	:	:	45.5	44.6	42.8

Source: Eurostat (UOE data collection). Online data codes: *educ_iteach; educ_uoe_perd03* (data extracted June 2017).

Explanatory notes

The reference year of the figure is 2015. Countries for which 2015 data was not available are represented by 2014 data (see Country-specific notes).

Data refers to academic staff at ISCED 2011 levels 5-8. It covers all types of higher education institutions (i.e. public, private government dependent and private government independent).

For the definition of academic staff within the UOE data collection, see Figure 1.3.

Country-specific note

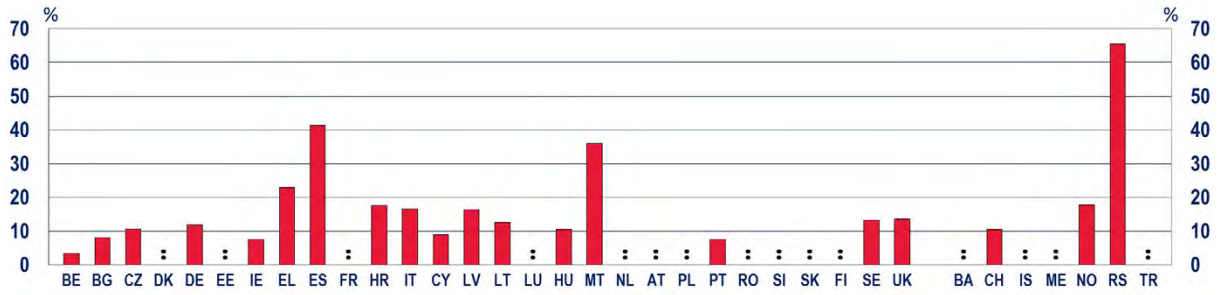
EU, Greece and **Turkey**: Reference year of data is 2014.

Finally, based on the European Tertiary Education Register (ETER) ([2]), Figure 1.6 looks at the share of professors among academic staff. In spite of its limited country coverage, the figure points to some noteworthy patterns, showing that the share of professors varies significantly across countries. A particularly high share is recorded in Serbia (65.5 %), followed by Spain (41.3 %), Malta (36 %) and Greece (22.8 %). In other countries for which data is available, professors represent up to 20 % of academics, Belgium having the lowest share (3.4 %).

([2]) The European Tertiary Education Register (ETER) is a database of higher education institutions in Europe. See: https://www.eter-project.com/ [Accessed 15 May 2017].

The information presented in Figure 1.6 can be complemented by information in the country diagrams annexed to this report which present the most representative categories of academic staff in each national higher education system, and include national statistics (see Annex 1). However, as the ETER project and this report do not apply the same methodology and definitions, the results are not necessarily aligned.

Figure 1.6: Professors among academic staff (%), 2013



%	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT
Professors	3.4	8.1	10.7	:	11.9	:	7.5	22.8	41.3	:	17.5	16.5	8.9	16.3	12.6	:	10.5	36.0
	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK		BA	CH	IS	ME	NO	RS	TR
Professors	:	:	:	7.5	:	:	:	:	13.3	13.6		:	10.5	:	:	17.8	65.5	:

Source: European Tertiary Education Register (data extracted November 2016).

Explanatory notes

While the European Tertiary Education Register (ETER) includes data on academic staff in three types of institutions – public, private and private government-dependent –, the figure only considers public and private government-dependent institutions.

The definition of professors (referred to as 'full professors') used for the ETER data collection is available in Lepori et al. (2016, p. 58).

1.2. Governance and human resource planning

Governance in higher education refers to the means by which higher education institutions are organised and managed. This has a major impact on the working life of academic staff, and may therefore influence the statistical information presented above. Across Europe, recent decades have seen a general trend towards increasing the autonomy of higher education institutions in many areas of their activity. Although public authorities retain a central role in regulating, co-ordinating and steering higher education, there has been a gradual shift away from detailed state control. Following this general trend and under the influence of local factors and traditions, a variety of national models of higher education governance have emerged. These models mix elements of central control, institutional autonomy and stakeholder guidance (Huisman et al., 2016).

Some reports suggest that the state role has become more supervisory, moving away from detailed regulation to external steering. The state role is focused on the definition of national objectives which must be implemented by the institutions, the transparency of institutional policies as well as various accountability measures for institutions and their staff. External steering is also seen in the growing influence of external stakeholders in the governing bodies of institutions (EUA, 2011).

The trend of increasing institutional autonomy of higher education institutions has been observed in different areas such as internal organisation and decision-making, managing financial resources, academic affairs and, of most relevance for this report, in policies for managing academic staff.

Indeed, earlier comparative reports have concluded that the situation regarding structural approaches to management of higher education staff is complex and diverse (Eurydice, 2008; EUA, 2011).

Differences can be significant not only across systems, but also within them, with variations often linked to institutional differentiation.

It is also important to note that, when analysing the approaches to major issues such as recruitment, employment conditions, salaries, promotions, previous overview reports have been unable to identify clear models to which national systems conform (Eurydice, 2008; EUA, 2011).

1.2.1. Academic staff trade union role in national negotiations and decision-making

At national level, decision-making on higher education issues often takes place within a process of negotiation with different partners and stakeholders, and a survey of trade unions undertaken for this report gives some indication of how this operates. Trade unions are most commonly involved as partners in negotiations (10 out of 16 countries) and in social dialogue (11 out of 16 countries). Similar numbers reported that they would also typically participate in hearings or lobbying activity related to policy activity.

However in only three out of the 16 countries from which responses were received do trade unions report that it would be normal practice for them to be involved as full members in decision-making bodies or processes. The most typical position for academic staff trade unions is to provide input to policy debates, but not to be around the table when decisions are taken.

Trade unions were asked about the main topics of concern to academic staff on which they negotiate at national level. Nearly all trade unions are involved always (11 out of 16) or sometimes (3 out of 16) in negotiations related to salaries. However, the trade union role on other topics is much less uniform. A majority of unions state that they are sometimes involved in negotiations on working conditions, recruitment and the design and development of higher education reforms, while less than one third of responses stated that this is always the case.

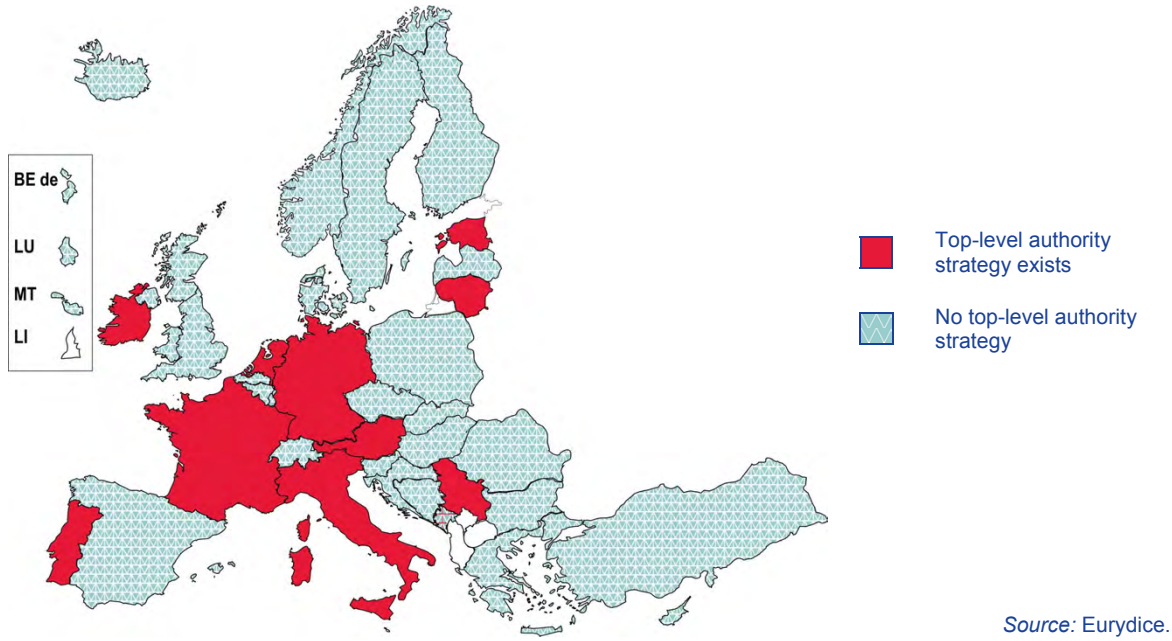
1.2.2. Strategic planning of human resources in academia

Previous studies have shown that in the majority of European countries higher education institutions have autonomy for human resource planning (Eurydice, 2008). In most systems, this task is undertaken by bodies composed solely or pre-dominantly of internal stakeholders. In nearly all countries, however, institutional autonomy is framed within broader societal goals, and strategic planning aligns with top-level policies and the priorities defined for the higher education sector. While this could be considered as a constraint to an absolute notion of institutional autonomy, higher education is always operating in a societal context and is therefore necessarily counter-balanced with accountability mechanisms required to demonstrate good use of public and private finance.

This section analyses if and to what extent top-level authorities have developed mid- or long-term strategies that steer academic human resourcing in higher education institutions.

Figure 1.7 shows that in only 10 higher education systems have top-level authorities developed a mid- or long-term strategy on human resources in higher education institutions.

Figure 1.7: Existence of top-level authority mid/long-term strategy on human resources planning in higher education, 2015/16



Source: Eurydice.

Such strategies usually cover a range of different aspects of staffing issues, such as for example gender distribution and the use of permanent and fixed-term contracts.

Gender distribution among academic staff is the most common element in top-level authority strategies on human resources in higher education. This is for example the case for Germany, France, Luxembourg, the Netherlands and Austria.

Strategies also deal, occasionally, with the distribution of fixed-term or indefinite contracts or staff categories. In Italy, the Netherlands and Austria, for example, strategies set maximum quotas for the use of different contracts. In Italy, such benchmarks are operationalized through budgetary measures with a maximum expenditure allowed for each institution. In Austria, the quotas are part of bilateral agreements between the Federal State and the single universities, while in the Netherlands it is a general framework without legally binding elements. Portugal, on the other hand, is the only country with a strategy developed around quotas for each staff category.

Other aspects that are reported as aims of the strategies are enhancing academic staff mobility and reinforcing professional development.

In some cases, strategies can serve to address specific challenges. In Ireland, for example, the National Strategy for Higher Education to 2030 ([3]) recommends significant reforms to the technological sector to meet national strategic objectives. The strategy suggests transforming institutes of technology into universities through a number of arrangements, among which are minimum requirements and qualifications for staff. In Serbia, among other aspects, the strategy aims at attracting Serbian academic staff working abroad in an effort to limit brain-drain.

([3]) See: http://www.hea.ie/en/policy/national-strategy [Accessed 6 June 2017].

Although the majority of countries do not have specific strategies, they may nevertheless undertake significant measures aimed at improving aspects of academic staff management. In this context, it is worth mentioning Latvia and Switzerland. On the basis of assessment and recommendations by the World Bank, Latvia will be launching in 2017-2019 a series of new initiatives and policy developments on academic staff remuneration, promotion and qualifications. In Switzerland, specific initiatives are being implemented since the year 2000 aiming to improve gender equality in higher education – an issue where the country has long been lagging behind.

It is also important to highlight that, in some cases, higher education systems will need to adjust in line with general top-level authority strategies and legislation that affect the entire public sector. Examples of this can be seen in Ireland and Greece where, following the economic crisis, top-level authority regulations have limited or frozen recruitment plans.

It is also interesting to note that the areas covered by strategic planning are highlighted by trade unions in the survey delivered specifically for this report as key issues of concern for them. In particular the issue of increasing use of temporary contracts was highlighted as a 'very important' policy concern in 12 out of the 16 countries from which information was received. Similarly trade unions report that equal opportunities policy is a major issue in 10 of the countries.

Conclusions

This chapter has provided contextual information to help understand the environment in which academic staff in Europe operate today. Academic staff, although found in every country, are far from being a homogenous category. Differences in the structure of staff categories between systems (see national diagrams in Annex 1) are significant, as are differences between types of institution within systems. Overall there is a wide variety of forms of professional differentiation that may be related to types of institution and programme, employment status, type of main activity (research, teaching, management), or to age and gender.

Demands on higher education have clearly been increasing in the last two decades, and this has had an impact on the academic staff profession. However, while some countries have experienced strong growth in student numbers, others have seen a more recent decline related to changing demography, and especially a decline in the secondary school leaving population. Similarly, numbers of academic staff have also changed significantly in the past two decades. However, the changes in staff numbers often move along a different path to those of student numbers or follow changing student trends with a time lag.

The way in which higher education institutions are organised and managed has a major impact on the life of academic staff. Research points to a general trend of increasing institutional autonomy, and to the emergence of new forms and models of governance. Indeed the past two decades have seen the growth and development of a variety of external steering mechanisms, including funding and quality assurance bodies and systems. The role of academic staff, and of their representative trade unions, in higher education discussions and decision-making varies considerably between countries.

The absence of mid- or long-term national strategies for human resource planning in higher education is a notable finding – the reality for all but 10 countries. Most countries appear to have delegated the responsibility for planning academic staff resources to higher education institutions themselves. Where national strategies exist, they commonly cover issues such as gender distribution, and the distribution of indefinite and fixed term contracts, but may also extend to topics such as mobility, training and career structures.

CHAPTER 2: ACADEMICS AND THEIR QUALIFICATIONS

Chapter 1 has presented a selection of statistical indicators which provide the context for this comparative report. It has also highlighted some key aspects to be considered when analysing the academic profession, including the fact that 'academics' cannot be seen as a homogenous group of professionals. Indeed, as the country diagrams annexed to this report reveal, the academic profession consists of a range of categories that may differ in terms of tasks, qualifications, contracts, etc. The picture is even more complex in higher education systems with several sub-sectors (e.g. universities, universities of applied sciences), since each sub-sector might involve a specific set of staff categories.

Building on the analysis presented in Chapter 1 and the country diagrams annexed to this report, this chapter examines qualification requirements towards academic staff. In a career development perspective, the chapter starts by looking at the doctoral degree, enquiring about the status of doctoral candidates, the role of the doctorate in an academic career and the content of doctoral training. The second part considers career progression in academia, looking in particular at procedures through which academics become recognised members of their community.

The chapter is mainly based on information supplied by top-level authorities, i.e. data collected from the Eurydice National Units ([1]). Whenever possible and appropriate, the Eurydice data is complemented by data from other sources, namely data from a survey conducted by Eurodoc – the European Council of Doctoral Candidates and Junior Researchers ([2]), and data produced within the EUROAC study ([3]).

2.1. Doctoral degree: a starting point of an academic career?

While the doctorate must increasingly meet the needs of an employment market that is wider than academia ([4]), it is commonly seen as a milestone in an academic career. Its preparation generally lasts at least three years and is characterised by a double affiliation: it is considered as an early stage of an academic career ([5]) and, at the same time, it corresponds to an extended, high level, research-based training period.

This section first examines the status of doctoral candidates from different perspectives. The second part discusses whether and to what extent the doctoral degree is a necessary condition for an academic career. Finally, the third part looks at the extent to which doctoral curricula prepare PhD candidates for their prospective teaching role.

([1]) For more details on the Eurydice data collection, see the Introduction to this report.

([2]) For more details on the Eurodoc survey, see the Introduction to this report.

([3]) For more details on the EUROAC study, see the Introduction to this report.

([4]) This has been highlighted, for instance, in the set of guidelines known as 'Salzburg Principles' (Bologna Seminar on 'Doctoral Programmes for the European Knowledge Society', Salzburg, 3-5 February 2005. Conclusions and Recommendations. [pdf] Available at: http://www.eua.be/Libraries/cde-website/Salzburg_Conclusions.pdf?sfvrsn=0 [Accessed 11 July 2016]). These principles were confirmed and enriched, in 2010, in the 'Salzburg II Recommendations' (EUA, 2010).

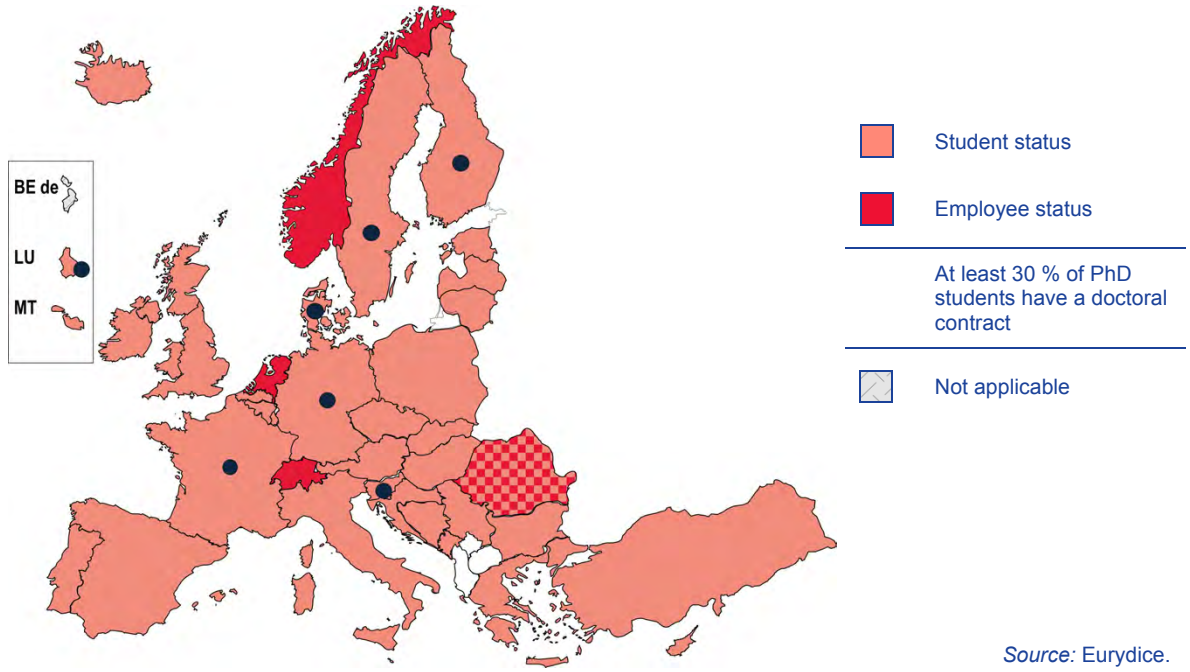
([5]) The Commission's document 'Towards a European Framework for Research Careers' issued in 2011 (European Commission, 2011c) refers to doctoral candidates as to 'first stage researchers'. It defines this category as 'individuals doing research under supervision in industry, research institutes or universities' (ibid., p. 7).

2.1.1. Formal status of doctoral candidates

Despite the fact that the Bologna process recognises doctoral training as the third cycle of higher education studies ([6]), the extensive research practice – which is at the heart of doctoral education – makes it fundamentally different from the first and second cycles (EUA, 2010). For this reason, doctoral candidates are also widely recognised as early or first stage researchers (EUA, 2010; European Commission, 2011c). This double affiliation raises the question of the legal status of doctoral candidates, i.e. whether they are regarded as students or whether they are perceived as employees. This question is examined here from two perspectives: first, from the point of view of top-level authorities, using the information reported by the Eurydice National Units; second, from the perspective of doctoral candidates, using sources other than Eurydice.

As Figure 2.1 shows, in almost all European higher education systems, the primary status of doctoral candidates is a student status (i.e. doctoral candidates have access to a student card and to various student services/benefits). This could partly reflect the impact of the Bologna process, namely the fact that since the introduction of doctoral degrees in the Bologna framework, there has been a greater focus on the taught elements of doctoral programmes. Only in three higher education systems is the primary status of doctoral candidates an employee status, whereby doctoral candidates have a contract linked to the PhD that complies with labour legislation. This is the case in Switzerland and Norway, where most doctoral candidates have an employment contract related to their PhD, and in the Netherlands, where it is the case for around half of all doctoral candidates (a further 5 % are students and 45 % are 'external candidates', which generally means that they work outside academia). A rather specific situation can be observed in Romania, where all doctoral candidates have a combined 'student-employee' status, meaning that neither of the two statuses is dominant.

Figure 2.1: Primary legal status of doctoral candidates, 2015/16



Source: Eurydice.

([6]) Bologna Seminar on 'Doctoral Programmes for the European Knowledge Society', Salzburg, 3-5 February 2005. Conclusions and Recommendations. [pdf] Available at: http://www.eua.be/Libraries/cde-website/Salzburg_Conclusions.pdf?sfvrsn=0 [Accessed 11 July 2016].

Explanatory notes (Figure 2.1)

'Primary legal status of doctoral candidates' refers to a legal status that is dominant, i.e. applies to all or most doctoral candidates. 'Student status' refers to a legal status officially recognised in the country and by higher education institutions. Commonly, the student status provides access to a student card and various student services and/or benefits, including subsidised accommodation and student insurance. 'Employee status' refers to situations where PhD candidates have a doctoral contract referring to their PhD in accordance with employment legislation (e.g. pension scheme, health insurance, social security, etc.).

Country-specific notes

Belgium (BE de): The only higher education institution in the system provides programmes at ISCED 2011 level 6 (bachelor). There are no doctoral programmes.
Croatia: By law, all PhD candidates have a student status, albeit with much reduced range of student rights compared to bachelor and master degree students (e.g. they are not entitled to state-subsidised student housing or meals).
Slovenia: All PhD candidates have a student status and around one third (37 % in 2015/16) are involved in the 'Young Researchers Programme', which implies a double 'student-employee' status.

Countries where doctoral candidates are primarily students can be clustered into further categories. In some of them, at least 30 % of all doctoral students have an employment contract related to their PhD, meaning that they have both a student and an employee status. For example, in Denmark, virtually all doctoral candidates have a student status and most candidates (90-95 %) have a contract linked to the PhD. A similar situation – though with lower proportions of doctoral contracts – can be observed in Luxembourg (80 % of doctoral students have a doctoral contract), Germany (64 %), Sweden (62 %), Finland (50 %), Slovenia (37 %) and France (32 %). Some other countries report the existence of doctoral contracts either with a lower proportion of beneficiaries (e.g. 13 % in the Flemish Community of Belgium) or with no data on the number of beneficiaries (e.g. Spain). Still, in the majority of higher education systems (around 20 systems), the primary status of doctoral candidates is the student status and doctoral contracts (i.e. employment contracts linked to the PhD) are either non-existent or rare. This means that when doctoral candidates work in academia – which is a very common situation – their employment contract is independent from their PhD.

It is also noteworthy that in some countries (Bulgaria, Denmark, Latvia, Lithuania, Hungary, the Netherlands, Poland and Norway), it is possible to prepare a doctoral degree with no formal PhD status. As pointed out previously, this is quite common in the Netherlands, where almost half of all doctoral candidates (45 %) prepare their PhD in an external mode, i.e. with no formal PhD status. However, in most higher education systems where this option exists (seven systems out of eight), it is not a mainstream route to a PhD, but an alternative option for those who are already in academia. For example, in Bulgaria, the option is designed for academics in junior positions, namely different categories of assistants and research associates. In Hungary, Latvia, Lithuania and Poland, it is possible to defend a PhD thesis without taking part in a doctoral programme, but the candidates are expected to present an academic record in addition to their thesis (e.g. work experience in academia, articles in academic journals, monographs, etc.). A similar situation can be observed in Denmark, where the option is open only to candidates who are deemed sufficiently qualified by higher education institutions, and it only concerns around 1-2 % of doctoral graduates per year. A slightly more open approach can be observed in Norway, where all interested candidates can prepare their thesis independently, without formal supervision. However, even though the thesis has to follow the same academic standards as the one prepared within PhD programmes, the degree awarded is not the same: the independent option leads to a qualification known as 'Dr.Philos', whereas traditional doctoral programmes lead to a PhD.

Besides the system-level perspective, the status of doctoral candidates can also be evaluated from the candidates' perspective. This can be done using data from a survey that was conducted in 2008-2009 by Eurodoc (Ates et al., 2011). The survey covered 12 countries ([7]) and one of its questions

([7]) Belgium, Germany, Spain, France, Croatia, the Netherlands, Austria, Portugal, Slovenia, Finland, Sweden and Norway

enquired whether doctoral candidates and junior researchers ([8]) qualify themselves as having a student status (ibid., p. 21). In three countries – France, Austria and Sweden – more than 90 % of respondents indicated that they had a student status. This is consistent with data presented in Figure 2.1, showing that doctoral candidates in these countries are primarily students (though some may also have a doctoral contract). In Belgium, Finland, Germany, Portugal, Slovenia and Spain, the proportion of those identifying themselves as having a student status was situated between 60 % and 90 %, which again confirms that doctoral candidates in these countries are primarily students. In contrast, in the Netherlands and Norway, more than half of all respondents – respectively 70 % and 63 % – indicated that they did not have a student status. This confirms data provided in Figure 2.1, which indicates that the primary status of doctoral candidates in the Netherlands and Norway is the employee status. Among all the participating countries, Croatia presents the most indistinct pattern, with around half of all respondents (52 %) indicating a student status, and another half not identifying themselves as students. This could reflect the fact that while formally considered as students, PhD candidates in Croatia have a reduced range of student rights compared to both the first- and second-cycle students (see Country-specific notes related to Figure 2.1).

2.1.2. Role of the doctorate in an academic career

When discussing doctoral training in a career-advancement perspective, a key question is whether and to what extent a doctoral degree is necessary for career progression in academia. This question is addressed here from two angles: the angle of formal/legal qualification requirements for academic staff and the angle of common practice in academia.

Looking at formal qualification requirements, Figure 2.2 shows that in most European countries the doctorate is legally required for the appointment to some positions in academia. In most cases, the requirement applies to intermediate or senior positions, but junior positions may also be affected (for more details, see Annex 1).

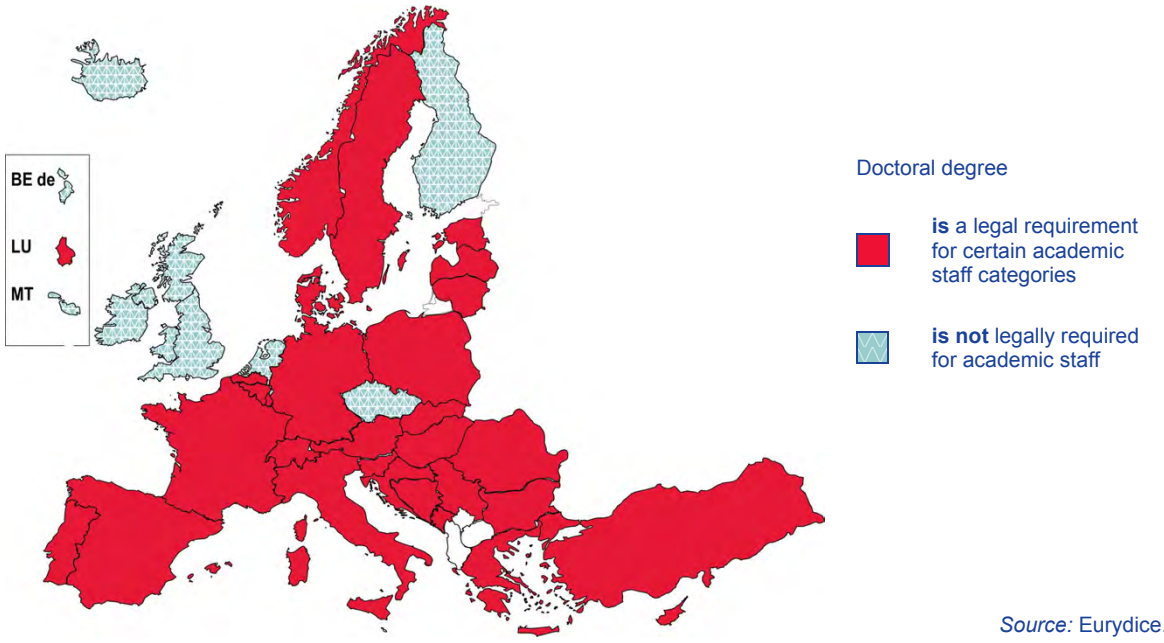
Sometimes, candidates can be appointed to a position without having a doctorate, but they are expected to complete it within a defined period. For example, in Poland, those with only a master's degree can be recruited as assistants, but they have to complete their PhD within eight years from their engagement. A comparable situation can be observed in Hungary, where assistants are expected to complete their PhD within ten years. In Croatia, junior academics without a PhD have a contractual obligation to obtain it within the duration of their first contract, which is always fixed-term. In Slovenia, assistants without a PhD can be appointed to a position three times for three years, and, after this period, they can only be reappointed if they hold a PhD. Further example is provided by France, where those finalising a doctoral thesis can sign a junior fixed-term contract 'ATER' (*attaché temporaire d'enseignement et de recherche*), but they are expected to obtain their doctorate within one year and, subsequently, continue their 'ATER' contract as PhD holders. All other positions within the main academic career path – namely *maître de conférences* and *professeur des universités* – are only open to PhD holders.

It is also noteworthy that the doctorate can enhance the stability of the employment contract. A relevant example is provided by Romania, where assistant lecturers without a PhD are only eligible for fixed-term contracts, whereas assistant lecturers with a PhD can be offered an indefinite contract. As in most countries, in Romania, positions above assistants are only open to PhD holders.

([8]) The survey covered doctoral candidates as well as junior researchers, meaning young researchers who have finished their doctorate and are working at the postdoctoral level (Ates et al., 2011, p. 1).

The extent to which the doctorate is legally required may vary according to the type of higher education institution and/or sector. In general, in countries with several types of institutions that involve different academic staff categories, the doctorate is more commonly required at universities than at institutions outside the university sector. For example, in the French Community of Belgium, Slovenia and Switzerland, the doctorate is a legal requirement for most staff categories at universities, whereas this requirement does not apply to staff at other higher education institutions. In Denmark, most academics at universities need to hold the doctorate, whereas the same applies only to some staff categories at other higher education institutions. In Italy, since 2010, one staff category at universities needs to hold the doctorate (*ricercatori universitari a tempo determinato*, i.e. temporary academic researchers), whereas at other higher education institutions (i.e. colleges of fine arts, music and dance), no staff category is affected by this requirement.

Figure 2.2: Doctoral degree as a legal requirement for accessing certain academic staff categories, 2015/16



Source: Eurydice.

Explanatory note

Countries with several higher education sectors that differ in terms of qualification requirements towards academic staff are represented by the university sector.

Country-specific notes

Belgium (BE fr): The figure represents the situations in universities. In other higher education institutions (*Hautes Écoles* and arts colleges), no staff category needs to hold a doctorate.
Belgium (BE de): The only higher education institution in the system has a non-university character and provides programmes at ISCED 2011 level 6 (bachelor). Staff are not required to hold a doctorate.
Denmark: Legislation refers to the PhD level rather than to the PhD degree.
Italy: The doctorate as a legal requirement was introduced in 2010. It applies to 'temporary academic researchers' (*ricercatori universitari a tempo determinato*) – the staff category that can be found at universities.
Austria: Doctoral degree is a legal prerequisite for the staff categories *Universitätsdozent* (*Ao. Univ.-Prof.)* and *Nicht-habilitierter Wissenschaftlicher/Künst-lerischer Mitarbeiter*. These categories are being phased out.
Slovenia and **Switzerland**: The figure represents the situations in universities. It does not apply to other higher education institutions.

In around a quarter of all European higher education systems – namely the German-speaking Community of Belgium, the Czech Republic, Ireland, Malta, the Netherlands, Finland, the United Kingdom and Iceland – top-level regulations do not formalise the doctorate as the minimum qualification for any academic staff category. However, most of these countries indicate that while not a legal requirement, the doctorate still plays an important role in an academic career. For example, in the Netherlands, despite institutional autonomy, all research universities require a PhD for all new scientific positions. Likewise, Ireland reports that higher education institutions commonly specify that

applicants must have a PhD qualification. The same applies to the Czech Republic, Malta and Iceland, where the doctorate is not required by legislation, but by internal regulations of higher education institutions. For instance, at the University of Malta – which is the only public university in this country – internal regulations specify that assistants without a PhD are bound to achieve it within six to eight years from engagement. All the other staff categories (i.e. lecturers, senior lecturers, associate professors and professors) must have a PhD. In the Czech Republic, internal regulations of higher education institutions impose the PhD to senior assistants, associate professors and professors.

The regulatory perspective presented in Figure 2.2 may be complemented by data from available studies, namely the 12 country data set ([9]) on the proportion of university professors holding a doctoral degree produced within the EUROAC study. The study identifies a cluster of six higher education systems – namely Germany, Austria, Poland, Portugal, Finland and Switzerland –, where more than 90 % of university professors hold a doctoral degree (Höhle and Teichler, 2013a, p. 252). This is coherent with Figure 2.2, showing that in most of these systems (five out of six) the doctorate is a formal legal requirement for some academic staff categories. In five higher education systems, the proportion of university professors with a doctoral degree is situated between around 60 % and 80 %. These are Croatia, Ireland, the Netherlands, the United Kingdom and Norway (ibid.). As Figure 2.2 indicates, these systems differ in terms of their regulatory frameworks: in Ireland, the Netherlands and the United Kingdom, the doctorate is not legally required for any academic staff category, while in Croatia and Norway it is required for some staff categories. Finally, Italy shows an exceptional profile, with only one third of university professors holding a doctoral degree (ibid.) ([10]). Overall, this shows that contrary to common assumptions, the doctorate is not necessarily a 'must' for a career in academia in all higher education systems (ibid.).

However, even if the doctorate does not play the same role in all higher education systems, data presented in this section suggests that it plays a key role in most systems. This is confirmed by other studies, including a qualitative interview-based research conducted within the EUROAC study (Fumasoli, Goastellec and Kehm, 2015), which suggests that 'the doctorate affirms itself as an entry requirement to academic careers in most countries and higher education sub-sectors' (ibid., p. 205). Moreover, the research also puts forward that while being an entry requirement, the doctorate alone is often not enough to start a career in academia. Indeed, as noted by Kwiek and Antonowicz (2015, p. 43), 'in massified systems of doctoral education, only selected doctorate holders have a chance to ever enter the academic profession'. In other words, alongside the doctoral degree, additional factors influence the entry to the academic profession. Among them, Kwiek and Antonowicz highlight the role of the supervisor, suggesting that '[r]egardless of the legal and institutional status of doctoral candidates, they need an academic mentor who provides them with intellectual support during the entire research process leading to a PhD thesis' (ibid., p. 43). Other closely related aspects include the quality of the doctoral thesis, publication activity, participation in conferences, international experience, working experience in academia during PhD, the size/quality of the network created during PhD, etc. (ibid.).

([9]) Germany, Ireland, Croatia, Italy, the Netherlands, Austria, Poland, Portugal, Finland, the United Kingdom, Norway and Switzerland

([10]) Yet, the share of doctoral degree holders at universities in Italy is substantially higher among junior academics (65 %). This suggests that the doctorate has only recently become the typical entry qualification to an academic career (Ates and Brechelmacher, 2013).

2.1.3. Teaching experience of doctoral candidates

Irrespective of the legal status of doctoral candidates, the core element of doctoral training is the advancement of knowledge through original research (EUA, 2010). Beyond research, the doctorate may comprise other activities, such as teaching, following training courses, correcting exams, supervising masters' degree thesis, doing laboratory jobs, drafting articles, supporting supervisor in his/her tasks, etc. (Brechelmacher et al., 2015). The range and the distribution of these activities commonly vary not only from one institution to another, but also from one field to another and/or one supervisor to another. To some extent, this diversity appears as a necessity, because '[d]octoral education is an individual journey, and structures must give support to individual development' (EUA, 2010, p. 5). However, since PhD holders may decide to stay in academia and, consequently, their duties may include teaching, a question can be raised as to the extent to which doctoral curricula adequately prepare candidates for a teaching role, for example, by including teaching assignments. The present section investigates this question from two different perspectives: the top-level perspective and the candidates' perspective.

According to data reported by top-level authorities, teaching assignments within doctoral training are regulated only to a limited degree. In other words, legal frameworks generally do not stipulate teaching as an element to be included in doctoral programmes. However, there are exceptions to this general pattern.

In a few countries (Bulgaria, Denmark, Estonia, Poland and Slovakia), legal frameworks are phrased in a way that establishes teaching assignments as a standard part of all or most PhD curricula. For example, in Slovakia, legislation obliges all full-time doctoral students – i.e. 56 % of all doctoral candidates in 2015/16 – to teach in the average range of four hours per week. In Poland and Bulgaria, teaching practice is legally expected from almost all doctoral candidates, the only exception being so called 'independent students', i.e. those who do not participate in an organised doctoral training (see Section 2.1.1). While in both countries the exact number of teaching hours is set by universities, legislation in Poland specifies that PhD teaching assignments cannot exceed 90 hours per year. In Denmark, legislation stipulates that doctoral candidates should gain either teaching or another knowledge dissemination experience, but it does not quantify the extent of the experience. According to central-level statistics, virtually all doctoral candidates (95-98 %) are involved in teaching. Another way of mainstreaming teaching can be observed in Estonia, where the legal framework indicates teaching and supervising among competencies expected from PhD holders, meaning that doctoral programmes should target these competencies. However, legislation does not provide any further details, i.e. it does not quantify the extent of expected teaching and/or supervising practice.

Another way of framing PhD teaching practice is to expect teaching only from those PhD candidates who benefit from a doctoral contract (see Section 2.1.1). This is the case in Spain, where PhD candidates with a doctoral contract are legally required to complete teaching assignments corresponding to around 60 hours per year. However, among the three main types of doctoral contracts – for prospective university professors, assistant professors and research staff –, only two are affected by compulsory teaching assignments, since the prospective 'research-only' staff are not required to teach. A comparable situation can be observed in France, where doctoral contracts can either be exclusively dedicated to research or they can include teaching assignments, dissemination of scientific and technical information, promotion of the results of scientific and technical research, or external expert missions.

Although not stipulated in legislation, estimates from some other countries indicate that doctoral contracts are often linked to teaching. For example, Sweden evaluates the proportion of doctoral

candidates who teach at around 60 %, which corresponds to the proportion of PhD students with a doctoral contract. In Germany, around two-thirds of all PhD students have a doctoral contract and, according to central-level estimates, around one third of them are involved in teaching.

Still, most countries belong to the category where the legal framework does not impose teaching on any category of doctoral candidates, leaving the decision-making power in the hands of higher education institutions. Sometimes, when teaching assignments are not a standard element of PhD curricula, regulations may still provide some framing for this area. For example, in Lithuania, legislation states that higher education institutions may require teaching practice corresponding to up to 100 hours per year, but it cannot be obligatory during the first or the last year of doctoral training. In Romania, legislation stipulates that doctoral candidates may be required to teach between four and six hours per week, but it is not a standard compulsory element of all PhD curricula. Most other countries (except countries mentioned in this section above) do not refer to teaching assignments of PhD candidates in their legal frameworks.

The top-level perspective can be complemented by data from other sources, in particular by the already quoted Eurodoc survey (Ates et al., 2011) conducted in 2008-2009 in 12 countries. One of the survey questions enquired about the number of hours that doctoral candidates and postdoctoral researchers spend on teaching related to their thesis or dissertation. The results point to a rather striking pattern dividing respondents into two major groups: those who teach many hours (more than 21 hours per week) and those who do not teach at all (0 hours per week) (ibid., p. 69). More specifically, when considering all surveyed countries, between 32 % and 58 % respondents indicated that they were teaching more than 21 hours per week, and, in contrast, between 36 % and 60 % reported that their teaching workload was equal to zero hours per week. In no country was the proportion of those teaching between zero and 21 hours per week above 15 %. This suggests that the content of doctoral and postdoctoral training within borders of individual countries is highly diverse. As the survey report notes, the engagement in teaching depends on several factors, including the supervisor, the department or the university where the programme is undertaken (ibid.).

Another item included in the Eurodoc survey was the perception that doctoral candidates have of their teaching skills at the beginning of their programme. The survey asked candidates to evaluate their teaching skills on a five-point rating scale, with options ranging from 'very low' to 'very high' (ibid., p. 34). Across countries, the two lowest levels of teaching skills were indicated by between a quarter and a half of all respondents. The highest proportion of doctoral candidates rating their teaching skills as low or very low was recorded in France (51 %) and Spain (48 %). In these countries, only around 20 % of respondents rated their teaching skills at the beginning of their doctorate as high or very high (i.e. the two highest options). In contrast, in Croatia and Norway, around 25 % of respondents rated their teaching skills as low or very low, and 46 % and 38 % in the two countries respectively, rated them as high or very high. The other eight participating countries were situated between these two extremes.

In addition to evaluating their teaching skills at the beginning of the doctorate, the Eurodoc respondents were asked to indicate how satisfied they were with their training in teaching skills. Again, the survey used a five-point rating scale, with options ranging from 'not at all satisfied' to 'very satisfied' (ibid., p. 41). Across the 12 surveyed countries, the percentage of unsatisfied respondents (i.e. those who selected the two lowest options) was situated between 25 % and almost 60 %, with Spain (59 %) and Slovenia (54 %) having the highest proportion of respondents unsatisfied with their training in teaching skills. In contrast, between 20 % and 40 % of respondents reported a high or a very high

degree of satisfaction with their training in teaching, with Belgium and Sweden recording the highest proportion of those satisfied with the received teacher training (both 40 %) ([11]).

In summary, the above survey data suggest that a substantial proportion of doctoral candidates consider themselves to have insufficient teaching skills at the beginning of their doctorate, and a substantial proportion report having no teaching experience during their PhD and/or being unsatisfied with their training in teaching skills. While there is no data linking these phenomena among the doctoral candidate population, these findings nevertheless raise some concerns about the quality of teaching to be expected from tomorrow's European academic staff.

2.2. Qualification requirements within academic careers

As outlined in Section 2.1.2, the long journey into an academic career generally starts with the doctorate ([12]). The EUROAC survey shows that academics are, on average, in their 30s when they obtain their doctoral degree (Ates and Brechelmacher, 2013) ([13]). Following the doctorate, academics generally enter into the transitional postdoctoral phase – the period regarded as the hardest and most crucial during an academic career (Brechelmacher et al., 2015). Often, this phase comprises periods in postdoctoral or assistant positions, during which academics build their research and/or teaching credentials. As discussed in Chapter 4 (Section 4.1), the postdoctoral phase is often linked to project-based (i.e. temporary) positions and contracts, whereas the advancement towards intermediate and senior-rank academic positions generally brings more stable employment conditions. However, career advancement within the academic profession is far from a process of simple progression from one staff category to another. Instead, academia appears as a competitive market, where the access to intermediate and senior-rank positions follows a set of system-specific rules and procedures. Indeed, '[o]ne hardly becomes an academic by chance, and every country has set us its own tracks and hurdles, its own procedures and decision-making levels' (Musselin, 2010, p. 13). The procedures in question cover, on the one hand, the recruitment process, and, on the other hand, conditions for career advancement that are relatively independent from recruitment. While the former aspect is discussed in a dedicated chapter (see Chapter 3 on recruitment processes), the latter is outlined in the remainder of this section.

Career advancement in academia includes a set of steps and milestones validating research and/or teaching competences of academic staff. Throughout these steps, academics are gradually recognised as competent members of their community and become eligible for supervising projects, units, as well as younger researchers, in particular doctoral candidates. The steps or requirements necessary to achieve such recognition are formalised to varying degrees. In some higher education systems, they are stipulated in top-level regulations, whereas in other systems, they are defined in regulations of individual higher education institutions or their units. They may also be implicit, embedded in shared understanding of academic careers.

In some higher education systems, top-level regulations define specific qualification requirements that are necessary for career progression in academia. This means that recruitment to a position is not

([11]) Here, the Eurodoc survey can be complemented by data from the EUROAC study, showing that on average, across European countries for which data is available, less than one-fifth of academics reported that their doctoral training comprised instruction in teaching skills and methods (Ates and Brechelmacher, 2013, p. 19). However, Poland is a noteworthy country in this respect, with more than one third of academics stating that their doctoral programme included training in teaching skills and methods (ibid.).

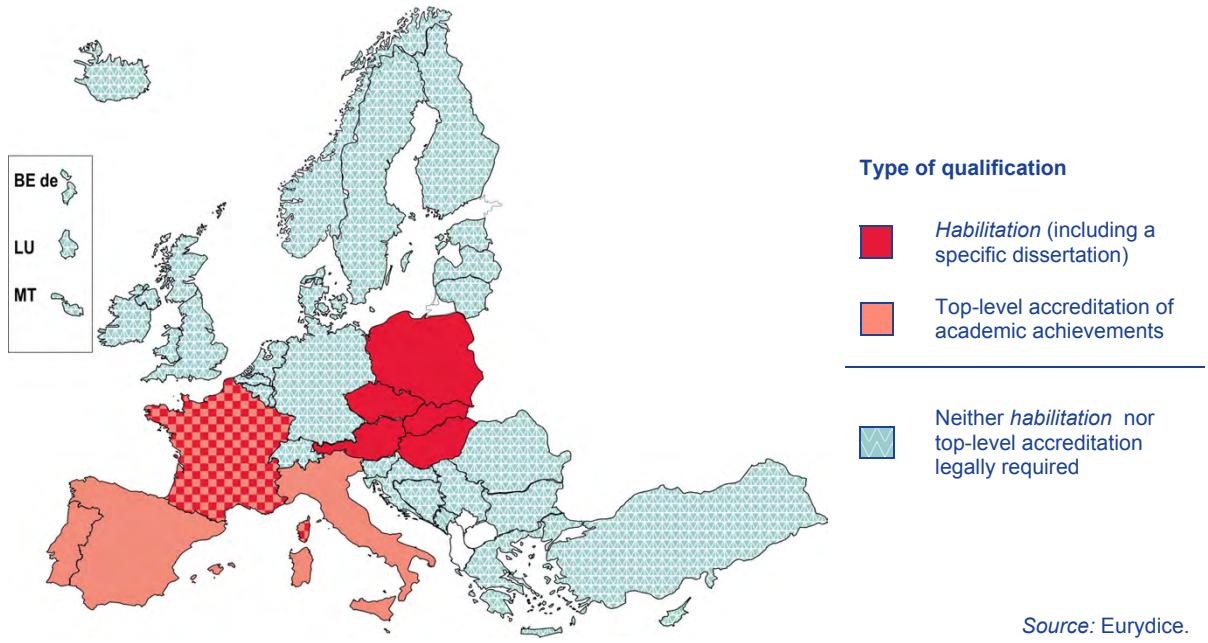
([12]) This does not mean that academia offers no employment opportunities for those without a doctorate degree, but, as Figure 2.2 shows, the absence of a PhD may imply limited career prospects in academia.

([13]) Depending on the country, the average age may be lower or higher (for more details, see Ates and Brechelmacher, 2013, pp. 16-17).

only dependent on a selection process, but also on an assessment process through which the candidate qualifies for the selection. Generally, these requirements apply to candidates intending to progress towards intermediate and/or senior categories, in particular positions of associate professors and professors.

As Figure 2.3 indicates, academics sometimes have to present their accumulated research within a procedure known as *habilitation* (see Figure 2.3). A clear example of such practice can be observed in France, where, prior to supervising PhD students and achieving a full professorship, academics have to defend a postdoctoral dissertation (*habilitation à diriger des recherches* – HDR), which is akin to another PhD. The *habilitation* requires consistent research that must be accompanied by a substantial publication activity, and it is evaluated primarily by external referees. A comparable procedure is stipulated in regulations of several central-European countries. For example, in the Czech Republic and Slovakia, to become an associate professor (*docent*), it is necessary to undergo a *habilitation* procedure that comprises the assessment of academic achievements, including a *habilitation* thesis, a *habilitation* lecture and the evaluation of a candidate's teaching experience. Being an associate professor is a legal prerequisite to become a professor.

Figure 2.3: Postdoctoral qualification as a legal prerequisite for accessing certain academic staff categories, 2015/16



Source: Eurydice.

Explanatory notes

Countries with several higher education sectors that differ in terms of qualification requirements towards academic staff are represented by the university sector.

A postdoctoral qualification is understood either as *habilitation* or as top-level accreditation of academic achievements. Qualifications that do not fall under these categories (see the related definitions) are not considered.

Habilitation refers to an advanced academic qualification that may be the minimum requirement for a particular staff category, role or position. It does not give access to a concrete position within an institution, but may be necessary for being recruited or progress through one's career to that position. It is usually organised through a formal and structured evaluation of achievements and experiences, but it is not based on open competitions or other competitive testing. The figure only considers *habiltation* procedures that include a specific dissertation/thesis (with or without other elements).

'Top-level accreditation of academic achievements' refers to a formal, structured and centrally coordinated evaluation of academic achievements and experiences. It does not give access to a concrete position within an institution, but may be necessary for being recruited or progress through one's career to that position. Contrary to the *habilitation*, the top-level accreditation does not include a specific dissertation/thesis and may include some elements of competition.

Country-specific notes (Figure 2.3)

Italy: The figure represents the situations in universities. It does not apply to other higher education institutions.
Hungary: The figure represents the situations in universities. The *habilitation* is a prerequisite to become a professor (see Annex 1). To become a scientific advisor or a research professor, it is necessary to achieve the doctorate title of the Hungarian Academy of Sciences, which is regarded as a *de facto* academic title. This title is not considered in the country diagram in Annex 1.
Austria: *Habilitation* is a legal prerequisite for the staff category *Universitätsdozent (Ao. Univ.-Prof.)*. However, this category, which can be found at universities, is being phased out and only few academics now come into consideration for accessing it.
Romania: Legislation adopted in 2016 has reinstated the *habilitation* as a legal requirement for university professors. However, the requirement will only apply starting from the academic year 2017/18. It is therefore not indicated in the figure.
Slovenia: Regardless of the type of contract, all academics except professors have to be reappointed every five years. The (re)appointment procedure (*izvolitev v naziv* and *ponovna izvolitev v naziv*) is commonly referred to as 'habilitation'. However, this process does not include a specific dissertation and is therefore not represented in the figure.
Switzerland: The *habilitation* remains important in the German-speaking part of Switzerland, while it is only rarely requested in the Western (French-speaking) part. Moreover, its importance varies from one discipline to another.

There are also cases where academics may be appointed to a specific position without the *habilitation,* but the procedure must be completed within a defined period of time. This can be observed in Poland, where assistant professors who do not hold the *habilitation* – which is considered as a degree – have to achieve it within eight years, whereas associate professors and professors have to hold it.

In some higher education systems, candidates for intermediate and/or senior positions have to qualify through a centrally coordinated accreditation system (see Figure 2.3). For example, in Spain, before applying for civil servant positions in academia – i.e. either *Profesor Titular de Universidad* or *Catedrático de Universidad* –, it is necessary to obtain a national accreditation (*acreditación nacional*) awarded by quality agencies and, once the accreditation is achieved, to pass a selection procedure at institutional level. The accreditation applies separate standards for each staff category, but in both cases, the assessment considers the same aspects, namely academic, professional, teaching, research and management merits. A comparable situation can be observed in Italy, where, since 2010, academics intending to become associate professors or professors have to obtain a national scientific *habilitation* (*abilitazione*) ([14]), which is a procedure comparable to the one that exists in Spain. Once qualified, candidates are eligible to apply for job openings at institutional level. In Portugal, in order to become a professor, it is necessary to achieve the *agregação*, which involves the evaluation of a candidate's research and teaching achievements. France also belongs to this cluster, as there is a formal accreditation process (known as *qualification*) for those intending to become associate professors (*maîtres de conférences*). Associate professors may afterwards pass the *habilitation* (*habilitation à diriger des recherches* – HDR), which enables them to supervise PhD candidates and is a prerequisite to become a professor.

There are also countries, where procedures covered by Figure 2.3 do exist, but are not legally required. For example, in Germany, the *habilitation* used to be a legal requirement, but this is no longer the case. Still, it has a strong tradition within the system, and is commonly used to demonstrate academic achievements. Similarly, in Turkey, prospective associate professors generally undergo a two-stage evaluation that includes (1) a dedicated dissertation which brings together a candidate's academic work and (2) an oral examination in front of a committee of five professors. However, as in Germany, the procedure is not a legal prerequisite to become an associate professor.

Alongside requirements covered by Figure 2.3, regulations may stipulate other qualification requirements (beyond degree requirements) that are a precondition for accessing certain academic staff categories. In Denmark, for instance, regulations specify that candidates for the position of associate professor or professor must receive a positive peer assessment of their academic

([14]) The *habilitation* (*abilitazione*) in Italy does not include a specific dissertation/thesis.

competencies and qualifications. Without the assessment, they cannot be appointed to one of the above positions. In Germany, regulations stipulate that candidates for the position of *professorin/professor* may be required to prove additional academic achievements, or particular achievements in the application or development of academic or scientific knowledge and methods. In Slovenia, all academics except full professors have to undergo a reappointment every five years. The appointment and the reappointment (*izvolitev v naziv* and *ponovna izvolitev v naziv*) must be based on evidence covering various areas, including educational attainment, academic achievements (proved by publications, monographs, articles, cooperation in research projects, etc.), teaching skills (demonstrated by a probationary lecture and an assessment by students) and linguistic competences. A further example is provided by Croatia, where before claiming for an academic position for the first time, candidates must prepare and deliver a so-called 'inaugural lecture'.

Besides qualification requirements, regulatory frameworks sometimes stipulate the period during which academics have to stay at a certain career stage, before moving to a following stage. While this aspect is not depicted by a dedicated figure, several examples of such regulatory practice can be found across Europe. In Greece, for instance, access to the category of associate professor requires a minimum of six years in the position of assistant professor, and access to the category of first rank professor a minimum of four years in the position of associate professor. Similarly, in Latvia, legislation stipulates that access to the category of professor is possible only if the candidate has at least three years' experience in the position of associate professor. In Bulgaria, in order to access the category of associate professor, the candidate must have a minimum of two years of experience as assistant or senior assistant or equivalent teaching and research experience. To access the category of professor, he/she must have served as associate professor for at least two years or alternatively have at least five years' experience in teaching and/or research. Overall, these examples point to the fact that career progression in academia sometimes follows not only predefined steps in terms of academic achievements, but also in terms of the duration of experience within a specific staff category.

Finally, in most countries with top-level requirements for academic career progression, higher education institutions have the freedom to make additional requirements. These, however, are usually concerned with access to specific positions, rather than preconditions for progressing towards a particular staff category.

Conclusions

Following a career development perspective, this chapter has examined qualification requirements towards academic staff. The chapter has first looked at the doctoral degree, enquiring about the status of doctoral candidates and the role that the doctorate plays in an academic career. The analysis has shown that in almost all European countries, the primary status of doctoral candidates is the student status, which can partly be explained by the impact of the Bologna process. Yet, while being a part of the three-degree Bologna structure, doctoral training differs considerably from the first- and second-cycle studies. For example, in several higher education systems, a substantial proportion of doctoral students have a contract related to their PhD, meaning that they have a combined 'student-employee' status, and, in a few systems, doctoral candidates are primarily employees. Moreover, in around a quarter of all European higher education systems, it is possible to prepare a doctoral degree independently, without any formal PhD status, this option being generally offered to those who are already in academia.

While the doctorate does not necessarily lead to an academic career, it plays an important role in the career path of academics. Indeed, in most European countries, the doctorate is legally required for the appointment to some academic staff categories or positions. In most cases, the requirement applies to intermediate or senior positions, but junior positions may also be affected. In higher education systems with several sub-sectors, the extent to which the doctorate is legally required often varies according to the type of higher education institution and/or sector. In general, the doctorate is more commonly required from academics at universities, compared to staff at other higher education institutions. In around a quarter of all European higher education systems, legislation does not formalise the doctorate as the minimum qualification for any academic staff category. However, in these systems, the requirement to hold the doctorate is often stipulated in documents other than legislation, including internal regulations of higher education institutions.

Since the doctorate often represents a starting point of an academic career, the question can be raised as to the extent to which it prepares prospective academics for their different roles, including the delivery of higher education courses. The evidence presented in the chapter shows that central authorities generally do not intervene in the content of PhD curricula, leaving higher education institutions to decide on these matters autonomously. Only a few countries have legislation requiring teaching practice to be a compulsory element of doctoral degree programmes. However, when teaching assignments are stipulated in regulations, the obligation to teach generally applies only to some categories of PhD candidates (e.g. full-time candidates, candidates with a PhD contract, etc.). These findings can be complemented by available survey data, showing that a substantial proportion of doctoral candidates consider themselves to have insufficient teaching skills at the beginning of their programme, and a substantial proportion report having no teaching experience during their PhD and/or being unsatisfied with their training in teaching skills. All these elements raise some concerns about the quality of teaching to be expected from tomorrow's academic staff.

Following the doctorate, academics generally enter into the transitional postdoctoral phase – the period regarded as the hardest and most crucial during an academic career. Often, this phase comprises periods in postdoctoral or assistant positions, during which academics build their research and/or teaching credentials. Those intending to progress towards intermediate and/or senior positions commonly have to comply with a range of qualification requirements that are formalised to varying degrees. In some higher education systems, academics are legally required to pass a procedure known as *habilitation* and/or to qualify through a centrally coordinated accreditation system. In some other systems, the same requirements are implicit, embedded in shared understanding of academic careers rather than regulations. Alongside qualification requirements, academics are sometimes

requested to stay at a certain career stage during a defined period of time, before moving to a following stage.

The picture of qualification requirements for the academic profession would be incomplete without recalling that academics cannot be seen as a homogenous group. Indeed, while the chapter concentrated on qualification requirements towards those following the most typical career path, academia often provides teaching and/or research opportunities outside the main career ladder. As the national diagrams annexed to this report show (see Annex 1), these parallel job openings are commonly less demanding in terms of qualification requirements. The diagrams also enable selected aspects analysed in this chapter – in particular legally required qualifications – to be considered per country and per staff category.

CHAPTER 3: THE RECRUITMENT OF ACADEMIC STAFF

Following the analysis in Chapter 2 of the qualifications required by academic staff, this chapter examines how staff are recruited. Academic recruitment methods and processes are profound shapers of the labour market in higher education. The way staffing is regulated and organised determines to some extent the human, professional and scientific capital of academia in any given country. This process is not neutral. On the one hand, it responds to wider dynamics typical of labour markets, such as supply and demand, employment conditions, contractual relations, evaluation of skills, and so on. At the same time, it has peculiar elements specific to its own environment. It reflects cultural values and beliefs regarding who should be part of the academic world, how to access it, and who should decide. Furthermore, higher education institutions are challenged by a wider environment characterised by globalisation, competition, commodification of education, shrinking resources and other factors, all of which influence policies and management of human resources. Recruitment in higher education is also related to key concepts that resonate in the public discourse: autonomy, accountability, transparency, accessibility, equal opportunities, to name a few. Ultimately, the way recruitment is conceived and carried out tells us how the tensions between these dimensions are displayed and solved in one way or another, and how higher education systems are adapting to the challenges they are facing.

Recruitment of academic staff is conceived here as a process aimed at filling a job vacancy in higher education institutions for teaching and/or research. It is usually linked to a specific position and based on the evaluation of one's merits, knowledge and competences against other candidates, through a process of selection.

Different players influence the process of recruiting staff in academic institutions: public authorities, higher education institutions, and other stakeholders, such as quality agencies or trade unions. In addition, as highlighted by Fumasoli et al. (2015) other levers play a role, such as for example, general and specific economic relations between employees and employers, or disciplinary settings.

Legislation on academic careers and recruitment can be articulated around two main areas: 1) the minimal requirements to access posts, such as holding a PhD or a post-doctoral qualification, and 2) the process of recruiting, expressed in terms of the methods used and the process followed, such as, for example, the way selection committees are composed. While the former has been discussed to some extent in Chapter 2, the focus of this chapter is to analyse the latter elements.

The chapter is organised in five sections. The first one looks into the scope and coverage of legislation issued by top-level authorities regulating recruitment in higher education. The second section discusses the main recruitment methods and the obligation to make vacancies public. The third section examines some of the aspects of the recruitment process regulated by top-level authorities, particularly the composition of selection committees. Part four analyses the legislation and policies on equal opportunities that influence recruitment processes, with a focus on gender. Finally, the chapter explores the role that top-level authorities play during the recruitment process, if any, as direct actor, guarantor of the system, or impartial referee. As highlighted elsewhere (see Chapters 2 and 4), in some countries legislation for other types of higher education institutions, such as universities of applied science, can be different. Such variances are briefly discussed when they occur.

The chapter is mainly based on data collected from the Eurydice National Units ([1]).

([1]) For more details, see Introduction to this report explaining the methodology of the data collection.

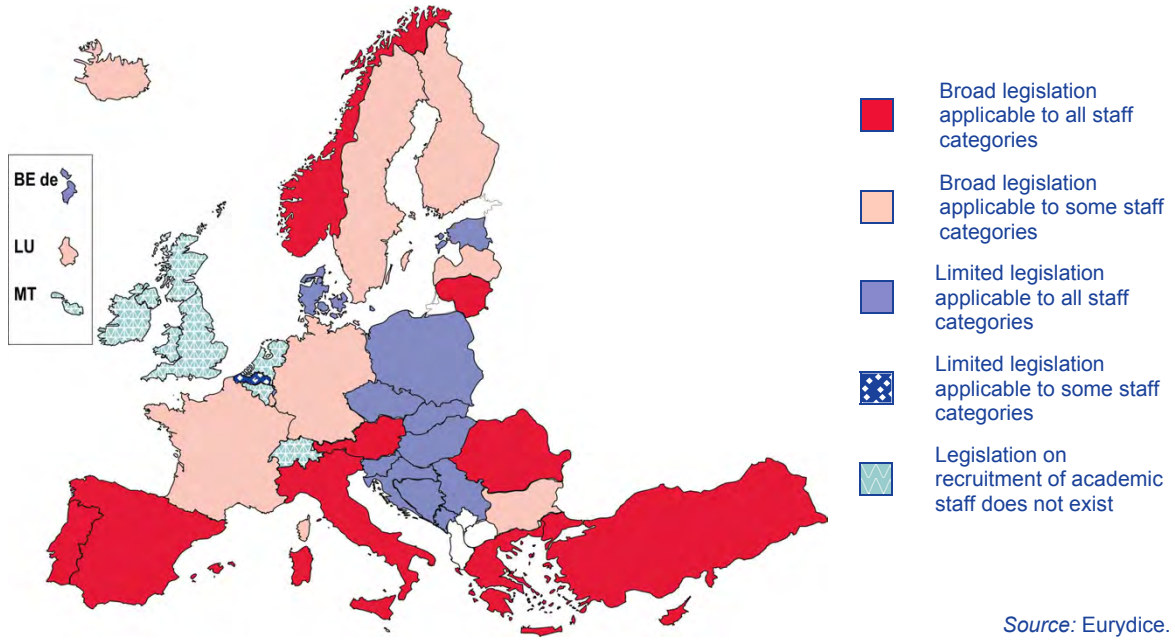
3.1. Top-level authorities' legislation on recruitment of academic staff

Legislation on recruitment of academic staff, when existent, can vary in scope and coverage. Its articulation is the result of a delicate balancing between the degree of autonomy of higher education institutions and the role played by top-level authorities as guarantors of equal treatment and consistency of the system. In some countries, certain academics are civil servants (for more details on the employment status of academic staff see Chapter 4, Figure 4.3) engaged by the state through a recruitment process strongly influenced by top-level authority regulations. In others, higher education institutions act as independent employers who have full autonomy in the recruitment of their academic staff under general labour legislation. In most cases, however, European higher education systems fall within the spectrum between these two extremes with legislation aiming at ensuring coherence within and across the system while guaranteeing institutional autonomy.

Figure 3.1 displays information on the scope and coverage of legislation on the recruitment of academic staff.

First, it distinguishes between countries where legislation exists and those where it does not. Approximately three quarters of European higher education systems have in place top-level authority legislation governing recruitment of some or all academic staff. On the other hand, in the remaining quarter recruitment is not regulated by the top-level authority and higher education institutions have full autonomy.

Figure 3.1: Scope and coverage of top-level authority legislation on recruitment of academic staff, 2015/16



Source: Eurydice.

Explanatory notes

Broad legislation indicates that regulations cover the recruitment method (see the Glossary) and aspects of the recruitment process. Limited legislation indicates that regulations cover only the recruitment method. The figure relates to specific top-level authority legislation on recruitment of academic staff. The figure does not consider general employment legislation that may still apply, such as for example laws aiming at ensuring equal opportunities. In countries where regulation covers all categories, staff employed on very short term contracts might still be recruited outside the main regulated framework and follow general employment legislation.

Country-specific notes (Figure 3.1)

Belgium (BE fr): The figure refers to universities. For other higher education institutions (*Hautes Écoles* and the arts colleges) some areas of the recruitment process are regulated by top-level authority legislation.
Denmark: The figure refers to universities. For other higher education institutions, some areas of the recruitment process are regulated by top-level authority legislation.
Ireland: The figure refers to universities. Specific legislation applies to the Institutes of Technology regulating aspects of the recruitment process for accessing certain staff categories.
Malta: The data refers to the University of Malta (UOM) and the Malta College for Arts Science and Technology (MCAST). The top-level authority regulates the recruitment at the Institute for Tourism Studies (ITS).
Switzerland: The data refers to legislation at federal level. With the exception of the EHT in Zurich and the EPF in Lausanne, both institutes of technology run by the Confederation (i.e. on the national level), all other higher education institutions are under the authority of the cantons.

Although regulations on recruitment exist in the vast majority of systems, their scope and coverage varies. Figure 3.1 distinguishes countries that have broad legislation from those where the legislative intervention of top-level authorities is limited. 'Broad legislation' means here that both the recruitment method and aspects of the recruitment process are regulated. For example, in Germany legislation requires that posts need to be filled through a selection process based on a public vacancy. In addition, it also contains general requirements on how the selection committee should be composed. On the contrary, 'limited legislation' is used here to indicate that only the recruitment method is regulated. In the Czech Republic, for example, the legislation on higher education requires that institutions recruit on the basis of a competitive selection, and that vacancies are made public. The process of selecting candidates, however, is completely left to the autonomy of higher education institutions.

On the basis of the above distinction, 13 higher education systems in Europe have limited legislation in the area of academic staffing. With the exception of parts of Belgium (the German-speaking and Flemish Communities) and Denmark, they are all in Eastern Europe.

In the remaining 16 systems, legislation by top-level authorities has a broader scope, regulating both the way vacancies should be filled, and parts of the process. How broad legislation is, however, can differ from one country to the other. In Portugal, for example, the top-level authority regulates the composition of the selection committee, the appeal procedures, and access to documents of the evaluation, just to name a few aspects of the recruitment process. In the case of the selection committees, regulations establish the number of panellists, the expertise, the category, and the number that should come from institutions other than the one recruiting. Similar patterns can be found in Greece, Spain, Cyprus, Romania and Turkey. In Lithuania, on the other hand, although the composition of the selection committee is regulated by law, legislation is restricted to ensuring that one-third of the members belong to higher education institutions other than the one recruiting, and that when recruiting professors there is at least one international expert. The number of members of the selection committee, their position or their expertise is left to higher education institutions to decide. The top-level authority does not regulate other aspects of the recruitment process. Legislation covers only some aspects of the process also in Italy and Norway leaving substantial parts in the hands of institutions.

Finally, the third element displayed in Figure 3.1 is the coverage of legislation in terms of staff categories. The figure shows that in 20 higher education systems, legislation is applicable to all staff categories, while in another nine, only to some categories. In Bulgaria for example, legislation requires that posts be filled through a selection process based on a public vacancy. Legislation also prescribes specific aspects of the recruitment process such as the way candidates should apply or the composition of the selection committee. However, such legislation is not applicable to all staff categories. Higher education institutions have in fact autonomy in employing assistants, the entry position in an academic career.

Elements of the example of Bulgaria can be found in other parts of Europe. As in Bulgaria, the most common pattern is to regulate the recruitment of staff categories with indefinite (or permanent) contracts or civil servant status, while leaving higher education institutions full autonomy when recruiting on temporary positions (see Chapter 4, Section 4.1, for further analysis on contractual and employment conditions of academic staff). In many countries, this distinction coincides with the seniority of staff categories. Senior categories usually have a higher level of job security, while junior categories or categories placed at the beginning of the academic career often have temporary contracts. In France, for example, the recruitment of senior and intermediate staff categories, which have indefinite contracts, follows top-level authority regulations, while institutions have more autonomy when recruiting junior staff (e.g. *attachés temporaires d'enseignement et de recherche*). This is also the case of Luxembourg and Iceland.

In Germany, Latvia, Finland and Sweden, the link between senior academic staff categories and indefinite contracts is less pronounced or non existent. In Germany, the recruitment of professors, who have indefinite contracts, and junior professors, who have fixed-term contracts, both follow top-level authority regulations, while institutions have more autonomy when recruiting junior scientific and creative arts staff (*Wissenschaftliche und Künstlerische Mitarbeiterinnen und Mitarbeiter*). In Latvia, all staff categories have fixed-term contracts, including senior staff categories. In Finland and Sweden, junior staff categories can be employed on indefinite contracts, even though recruitment for such categories is less regulated than for more senior categories.

The Flemish Community of Belgium is the only system where legislation on recruitment is both limited and applicable only to some staff categories (see Figure 3.1). Higher education institutions, in fact, have no obligation to recruit staff through a selection process or to make vacancies public for contract research staff (*Wetenschappelijk personeel*), a category that is both outside the academic career path regulated by the top-level authority, and represents a substantial share of the whole academic workforce ([2]).

Similar staff categories however can be found also in higher education systems with broad legislation, such as Germany (freelance lecturers – *Lehrbeauftragte*) and France (associated teachers – *enseignants associés*). The recruitment of these staff categories is usually not regulated by top-level authority legislation, giving higher education institutions full autonomy and flexibility.

It is worth noting that in addition to conventional universities, higher education systems are composed of different types of institutions, such as specialised colleges or universities of applied science. In some countries, regulations from top-level authorities apply differently, depending on the type of institution. In Denmark, for example, while for universities legislation on recruitment is limited, university colleges, academies of professional higher education and maritime education institutions are required to follow specific recruitment procedures defined by the top-level authority. In Austria, the federal law regulates recruitment procedures for senior categories in universities, with the exception of universities of applied sciences which enjoy full autonomy. On the other hand, recruitment in university colleges of teacher education is fully regulated. Among the systems that are displayed in Figure 3.1 as not having regulations on the recruitment of academic staff, specific legislation applies to the *Hautes Écoles* and arts colleges in the French Community of Belgium, to the Institutes of Technology in Ireland, and to the Institute for Tourism Studies in Malta.

([2]) Contract research staff comprises a broad category of staff members that is not remunerated through the operating budget granted by the Flemish Department of Education and Training to universities. It concerns staff on a scholarship as well as contractual staff paid with European, international or national subsidies, own means from the universities or financing from companies. Part of the contract research staff is permanent with indefinite contracts.

3.2. Recruitment methods

This section analyses the main recruitment methods used in academia and the requirement of making vacancies public. These two aspects are common to most countries with top-level authority legislation on recruitment of academic staff, although approaches and coverage vary.

3.2.1. Typology of recruitment methods

Academic staff can be recruited following different methods, such as selecting the best candidate responding to a public vacancy, interviewing a restricted list of eligible candidates, or even through direct call.

In Europe, the most common recruitment method involves a selection process of candidates responding to a public vacancy. The higher education institutions themselves principally govern this process with substantial, but not necessarily total, autonomy and independence (see the Glossary for the full definition of 'public vacancy'). In many cases, restrictions in the way the vacancy needs to be made public, or the qualifications, provenance and general profile of members sitting on the selection committee, frame the autonomy of higher education institutions, while guaranteeing a harmonised approach in the recruitment of academic staff across the system. As seen in Chapter 2, legislation can also regulate which candidates are eligible to apply to a position by requesting specific qualifications for certain categories, such as postdoctoral qualifications for senior categories in some countries (see Figure 2.3). Furthermore, in some countries, legislation varies depending on the type of institutions. In Austria, for example, as far as universities are concerned, junior positions are recruited through a selection process based on a public vacancy, assistant and associate professors through career advancement, and university professors through a mix of the two. Recruitment in university colleges of teacher education, on the other hand, is made through a selection process at all levels.

It is interesting to note that this is the most common recruitment method also in all systems that do not have top-level authority regulations on recruitment. However, general employment legislation and rulings preventing discrimination may still apply. In addition, as already highlighted in the previous section, in some of these countries, such as Ireland and Malta, specific legislation applies to certain types of institutions with parts of the process subject to specific rules.

France is the only country reporting open competitions as a common recruitment method. This process is usually steered by the top-level authority competent in the area (see the Glossary for the full definition of 'open competition') with more stringent regulations in terms of process. Moreover, public vacancies are usually announced by single institutions and respond to their specific needs, while open competitions usually concern the entire system, without necessarily integrating ad-hoc needs of individual establishments. Theoretically, the former can be more flexible, although harmonised approaches across institutions and consistency within the system can be challenged by institutional autonomy. Open competition guarantees higher levels of consistency and harmonisation within the system, while tending to be more rigid.

Although in France open competition is the main recruitment method for most staff categories, under certain circumstances academic staff can be recruited through a public vacancy (e.g. *attachés temporaires d'enseignement et de recherche; enseignants associés, etc.*).

In addition to the two above methods, other ways of recruiting academic staff are possible, such as vacancies accessible only to internal candidates and direct call (or head-hunting) with no selection of candidates. Neither of these is commonly reported.

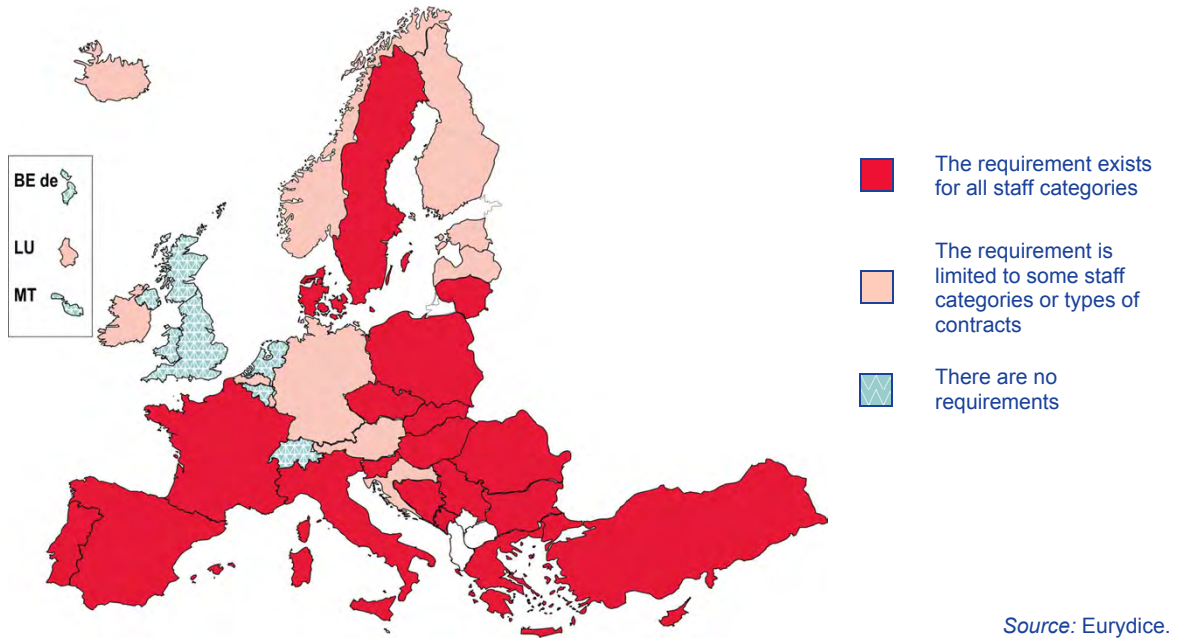
The process of filling a vacancy can also avoid recruitment altogether and take place through career advancement or promotion. This practice is limited to a handful of countries (the Flemish Community of Belgium, Estonia, Cyprus, Ireland (limited to the Institute of Technology), Malta (limited to the Institute of Tourism Studies), Austria, Finland, the United Kingdom and Norway), in most cases restricted to specific categories and not always regulated by top-level authorities.

3.2.2. Requirements to make vacancies public

As seen above, legislation on recruitment of academic staff, when existent, usually prescribes at least the recruitment methods that should be used, and in some cases the possible exceptions. Another common feature of such legislation is the requirement to make vacancies public. This applies to all methods that involve a selection of candidates, including open competition.

Figure 3.2 gives an overview of the countries where there is an obligation to make vacancies public and the coverage of this requirement. Overall, in 31 higher education systems, legislation requires vacancies to be made public. In two-thirds of them this is applicable to all staff categories, while in the remaining one-third it applies only to some staff categories or types of contracts.

Figure 3.2: Existence of top-level authority requirements to make vacancies public, 2015/16



Source: Eurydice.

Explanatory notes

The figure relates to specific top-level authority legislation on recruitment in higher education institutions. In systems where the requirement is extended to all staff categories, exceptions may exist for specific situations, such as very short term contracts.

Country-specific notes

Belgium (BE fr): The figure refers to universities. For the *Hautes Écoles* and arts colleges, there is an obligation to publish vacancies on the Belgian Official Journal (*Le Moniteur Belge*). Similarly, there are top-level authority regulations on appeal procedures and ratification of the appointment (see Section 3.5: Recruitment management).
Switzerland: The two federal institutes of technology (ETH in Zurich and EPF in Lausanne), which are federally run higher education institutions, have an obligation to publish their vacancies.

Among the countries that limit the requirement of making vacancies public, two possibilities emerge: legislation differentiates either according to staff categories, or to the type of contract.

As far as the first distinction is concerned, as seen in Section 3.1, regulations by top-level authorities seem to be more prescriptive when it comes to senior categories. In Germany, for example, it is mandatory to publish vacancies only for professors and junior professors. A similar approach,

distinguishing between senior and junior categories, is taken in Luxembourg. This approach often coincides with higher levels of job security, but it is not always the case. In Finland, the obligation to publish vacancies is applicable only to the 'leading researcher' but junior positions also have access to indefinite contracts. In Latvia, although the obligation to publish vacancies is limited to elected professors and associate professors, all categories are appointed with fixed-term contracts (see Section 4.1.1).

In other countries, the type of contract is the distinguishing factor between the obligation to make a vacancy public or not. In these countries, under certain circumstances, higher education institutions offering temporary positions have no obligation to publish vacancies (see Chapter 4, Section 4.1.1 for different contractual arrangements). This is the case for Estonia, Croatia, Austria, Iceland and Norway. However, there are some limitations. In Croatia, for example, only hourly-paid contracts are exempt from this obligation, while in Norway only contracts that are shorter than six months and fixed-term contracts funded by third-parties. In Austria, this exemption applies only to lecturers and project staff. In Iceland, there are a number of conditions that need to apply in addition to the post being temporary.

In the Flemish Community of Belgium an exemption to publish vacancies is made for contract researchers, a special staff category that can access both indefinite and fixed-term contracts and are outside the mainstream academic career path.

In addition to regulating if and when the vacancies are to be published, some countries also require the use of specific official and formal means. In Greece, Cyprus, Portugal, Romania and Slovakia, vacancies are published through official communication channels, such as the official journal or gazette. In addition, in Greece and Cyprus, the competent ministry must approve the vacancy before it is published. In Iceland, the Ministry of Finance publishes the vacancy, and exceptions are highly regulated. In Spain, vacancies for hired teaching and research staff categories need to be communicated to the Council of Universities, responsible for its dissemination, and posts are usually advertised within the institution publishing it and in the official journal of the relevant Autonomous Community. However, for posts with an employment status of career civil servant, the vacancy needs to be published in both the national official journal and that of the relevant Autonomous Community. In France, positions filled following the open competition method are announced through official channels and in particular all vacancies must be accessible on the central portal of the competent ministry ([3]). Institutions are also requested to publish vacancies for which they have autonomy of recruitment following principles of transparency.

Finally, as for other aspects of legislation on recruitment, in some countries the requirement for publishing vacancies can vary depending on the type of institution. In Denmark, for example, positions in university colleges, academies of professional higher education and maritime education institutions do not need to be published in case of a fixed-term contract for up to two years for associate professors, for positions funded for more than 50 % by external funds, and in exceptional cases on recommendation of an expert committee.

Among the countries that do not have an obligation to publish vacancies, practices tend towards disseminating them as much as possible, both for transparency reasons and to reach out to the best possible candidates. For example, in the Netherlands, the Academic Transfer ([4]) network, where all

([3]) See: Galaxie: https://www.galaxie.enseignementsup-recherche.gouv.fr/ensup/candidats.html [Accessed 19 May 2017]; Public Employment Interministerial Appointments (*Bourse Interministérielle de l'Emploi Public*): http://www.fonction-publique.gouv.fr/biep/bienvenue-sur-la-bourse-interministerielle-de-lemploi-public-biep [Accessed 19 May 2017].

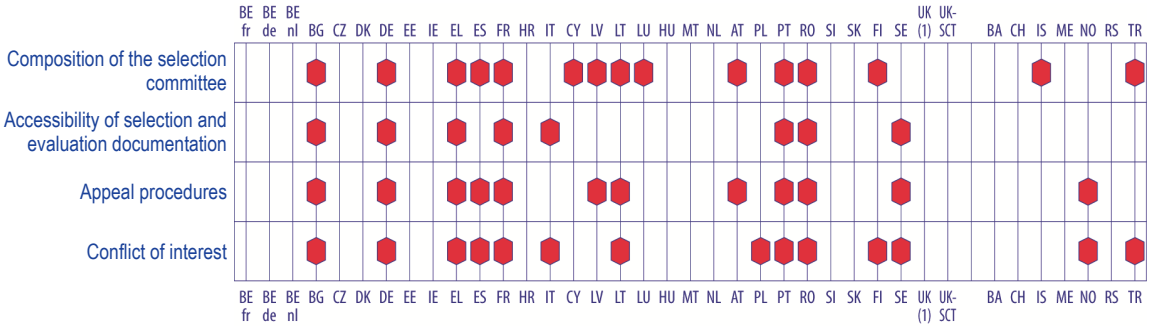
([4]) Academic Transfer is a joint initiative of the Association of Universities in the Netherlands, the Dutch Federation of University Medical Centers, and the Dutch Employers Association of Research Institutions. For more details, see: https://www.academictransfer.com/ [Accessed 19 May 2017].

vacancies are made available, supplements the legislative void, while in the United Kingdom the Quality Code for Higher Education published by the Quality Assurance Agency for Higher Education indicates that higher education institutions should act transparently in all their activities relating to recruitment and promotion. Higher education institutions in these systems are considered active players in a free job market within a competitive environment, and therefore it is in their interest that vacancies are widely disseminated and attract the best candidates.

3.3. Recruitment process

This section looks into the legislation governing some of the key features of the recruitment process. These aspects shape the level of autonomy of institutions and the degree of transparency of the recruitment system. Figure 3.3 displays some of the most commonly regulated elements.

Figure 3.3: Existence of top-level authority regulations in selected aspects of academic staff recruitment, 2015/16



Source: Eurydice.

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

Explanatory notes

The data refers to the most common recruitment methods described in Section 3.2.1

Country-specific notes

Belgium (BE fr): The figure refers to universities. For the *Hautes Écoles* and arts colleges, there are top-level authority regulations on appeal procedures and ratification of the appointment (see Section 3.5: Recruitment management)
Denmark: The figure refers to universities. University Colleges, Academies of Professional Higher Education and Maritime Education Institutions can have additional regulations on various aspects of the recruitment process.
Ireland: The figure refers to universities. Specific legislation related to the Institutes of Technology regulates the composition of the selection committees.
Spain: Regulations on the composition of the selection committees and appeal procedures by the national competent authority apply only to the recruitment of career civil servants. Regulations on conflict of interest and equal opportunities apply to all staff.
Malta: The data refers to the University of Malta (UOM) and the Malta College for Arts Science and Technology (MCAST). The top-level authority regulates the composition of the selection committees at the Institute for Tourism Studies (ITS) and a representative of the competent ministry sits on the panel.
Austria: The data refers to legislation at federal level.

The comparative analysis among countries reveals three main patterns. Firstly, 19 higher education systems do not regulate any aspect of the recruitment process. In these systems, higher education institutions have full autonomy, although the top-level authority legislation may require rules to be explicitly specified in the statutes of the institution. Secondly, countries where every aspect under scrutiny is regulated by top level authorities. This is the case for Bulgaria, Germany, Greece, France, Portugal and Romania. Thirdly, the remaining 13 countries fall in between the first two. However, within this group, the degree of intervention of the top-level authority in regulating the recruitment process, and as a consequence the level of autonomy of higher education institutions, varies enormously. Sweden, for example, regulates almost all aspects under analysis except the composition of the selection committee, a distinguished feature of institutional autonomy. On the other hand, in Cyprus, despite the general framework that grants institutions much autonomy in their staffing, the composition of the selection committee is regulated.

The comparative analysis of single aspects listed in Figure 3.3 shows that the most regulated aspect is the composition of the selection committee, closely followed by legislation on conflict of interest. The least regulated one appears to be accessibility to the selection and evaluation documentation, while 12 countries have specific legislation on the appeal procedures.

Figure 3.3 shows that 15 countries across Europe have regulations issued by top-level authorities on the composition of committees that will select candidates to be recruited. Such legislation usually indicates how the selection committees should be composed specifying the number of its members (usually not less than three), the staff category (usually equivalent or superior to the post), and the expertise in the specific subject field. While this latter element ensures that the members of the panel are experts in the relevant subject field, in some ways it also confirms that disciplinary settings contribute to shaping the academic labour market (Fumasoli et al., 2015).

Moreover, in some countries (Bulgaria, Greece, France, Latvia, Lithuania, Luxembourg and Portugal), selection committees must include members that do not belong to the institution recruiting, and in Greece, Cyprus and Lithuania, the prescription goes as far as requiring the number of international experts on the committee. Similarly, in Latvia, candidates for the position of professor receive an independent international evaluation.

It is also worth noting that in some countries, different stakeholders sit on the panel. In Germany, it is the representatives of students and in Latvia, for senior positions, representatives of professional associations whose activities are linked to the field of the vacancy may be invited to be part of the selection committee. In Austria, for positions that fall under employment conditions regulated by collective agreements, both representatives of employers' organisations and trade unions participate in the selection committees.

In all other education systems, higher education institutions have full autonomy in setting up selection committees, although practices in terms of minimum number of members, expertise of the panel, and participation of external or international experts might not differ enormously from countries where the composition of selection committees is regulated. Moreover, in such countries, general employment and anti-discrimination laws might still apply and contribute to shaping the process.

3.4. Equal opportunities

Recruitment of academic staff, as for other professional areas, can be subject to policies deriving from the wider context. This is particularly the case for policies that aim at preventing discrimination on the basis of sex, age, nationality, ethnic origin and so on. Figure 3.4 shows that 24 higher education systems have legislation on equal opportunities directly applicable to the recruitment of academic staff. However, this means that there are still almost half of the systems that do not have such legislation in place.

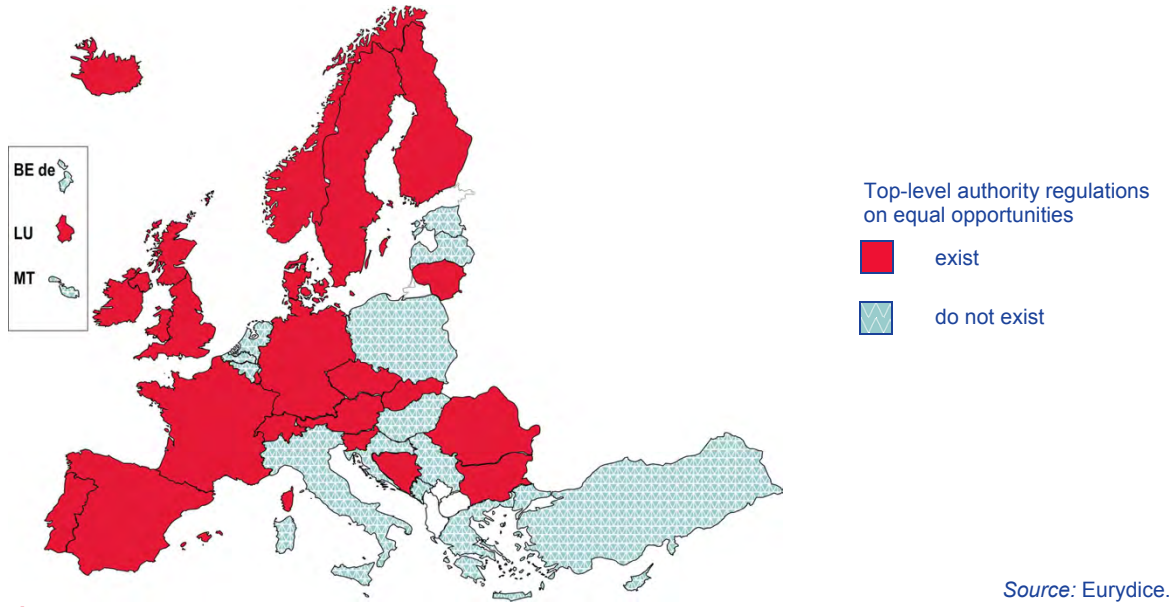
In most cases equal opportunities is regulated through general legislation. In five countries, specific norms or articles on equal opportunities are to be found in the regulations on higher education (Luxembourg, Austria, Romania, Iceland and Bosnia and Herzegovina), while in Germany, France and Spain both general and specific legislation apply.

Regulations on equal opportunities usually cover gender, ethnicity, disability, religion, age, political beliefs and sexual orientation. However, in Germany, Luxembourg and Iceland, it is limited to gender, while in Spain and Portugal to gender and disability.

Despite the nature of the legislation (general or specific to higher education) its concrete implementation is largely left to employers, and examples of laws containing concrete targets, guidance or actions are rare. When they exist they are generally limited to gender balance. France is

the only country reporting specific targets and actions for the employment of staff with disabilities. The government has a national target of 6 % of all staff working in higher education institutions being personnel with disabilities, and regularly monitors the evolution of this indicator. In addition, every year, the government provides 25 specific PhD grants to students with disabilities.

Figure 3.4: Existence of top-level authority regulations on equal opportunities affecting recruitment of academic staff, 2015/16



Source: Eurydice.

Explanatory notes

The figure shows both general and higher education-specific top-level authority legislation on equal opportunities affecting recruitment of academic staff.

In all the countries under analysis, one of the goals of existing legislation on equal opportunities is to prevent gender discrimination.

At European level gender equality has been high on the policy agenda for decades. It is explicitly considered as a fundamental value and a central objective in the treaties on the European Union ([5]). Various directives have been issued at European level to legislate on equal treatment for men and women, such as those covering social security ([6]), employment and occupation ([7]), parental leave ([8]), and self-employment ([9]). Numerous conclusions of the Council of the European Union ([10]) tackle

([5]) Articles 2 and 3 of the Treaty on the European Union and Articles 8, 10, 19 and 157 of the Treaty on the Functioning of the European Union. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12012M%2FTXT

([6]) Council Directive 79/7/EEC of 19 December 1978 on the progressive implementation of the principle of equal treatment for men and women in matters of social security, OJ L 6, 10.1.1979, pp. 24-25. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31979L0007

([7]) Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast), OJ L 204, 26.7.2006, pp. 23-36. http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1435216807215&uri=CELEX:32006L0054

([8]) Council Directive 2010/18/EU of 8 March 2010 implementing the revised Framework Agreement on parental leave concluded by BUSINESSEUROPE, UEAPME, CEEP and ETUC and repealing Directive 96/34/EC (Text with EEA relevance), OJ L 68, 18.3.2010, pp. 13-20. http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1438166150420&uri=CELEX:32010L0018

([9]) Directive 2010/41/EU of the European Parliament and of the Council of 7 July 2010 on the application of the principle of equal treatment between men and women engaged in an activity in a self-employed capacity and repealing Council Directive 86/613/EEC, OJ L 180, 15.7.2010, pp. 1-6. http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1438161891337&uri=CELEX:32010L0041

([10]) Since 1999, the Council of the European Union has issued conclusions almost every year to tackle different aspects of gender inequality, such as women in decision-making processes, reconciliation of work and family life, equal participation in the labor market and equal pay, to mention a few.

outstanding issues, seeking further action at European level ([11]). The European Commission has provided stimuli in developing gender equality policies through its Communications ([12]) and Recommendations ([13]), and monitoring through its reports ([14]). Since 2010, the European Commission has launched a more systematic approach with the Strategy for Equality between Women and Men 2010-2015 (European Commission, 2011b), followed by the new Strategic Engagement for Gender Equality 2016-2019 (European Commission, 2016b). The strategy sets priorities, objectives and concrete actions which provide the basis for common action at European level and for reporting on progress ([15]).

In the areas of higher education and research, since its first communication in 1999 (European Commission, 1999), the European Commission has consistently worked to enhance the value, presence, and recognition of women through regular monitoring and reporting ([16]), support for instruments that measure institutional policies on gender issues ([17]), and funding through programmes such as Erasmus+ and Horizon 2020. Nevertheless, as stated in the latest She Figures 2015 (European Commission 2016a, p. 126), 'the academic career of women remains markedly characterised by strong vertical segregation', and 'women continue to be severely underrepresented in top-level positions despite having made some progress'. In its analytical paper 'Integrating gender equality into academia and research organisations', EIGE (2016, p. 34) concludes that not all member states have gender equality in research as an explicit policy aim and that less than two-thirds of European Member States have 'provisions related to gender-sensitive recruitment and career promotion and to gender balance in decision-making in research'.

As far as higher education institutions are concerned, data from 2013 available in the European Tertiary Education Register (ETER) ([18]), and displayed in Figure 3.5, shows the share of women among all academics and among professors.

When looking at the whole academic staff population, women represent less than 40 % of the academic workforce in nine countries, while in Belgium, the Netherlands, Portugal, Sweden, and the United Kingdom less than 45 %. In Bulgaria, Ireland, Croatia, Finland, Norway and Serbia, the share of women and men is close to parity. Exceptions to this generalised trend in favour of men are Denmark, Latvia and Lithuania where women represent more than 50 % of the entire academic workforce.

However, when it comes to the rank of professor, disparities are striking. In five countries (Belgium, Ireland, Greece, Cyprus and the Netherlands), women make up less than 20 % of professors, the

([11]) See for example: *Council conclusions on Women and the economy: Economic independence from the perspective of part-time work and self-employment*. Employment, Social Policy, Health and Consumer Affairs. Council meeting. Luxembourg, 19 June 2014. http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/143269.pdf

([12]) See for example: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *Strategy for equality between women and men 2010-2015*, COM/2010/0491 final. http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0491

([13]) See for example: Commission Recommendation of 7 March 2014 on strengthening the principle of equal pay between men and women through transparency (Text with EEA relevance), OJ L 69, 8.3.2014, pp. 112-116. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014H0124

([14]) See for example: European Commission, 2015b

([15]) See for example: European Commission, 2016

([16]) See for example: European Commission/EACEA/Eurydice, 2010 and European Commission, 2016a

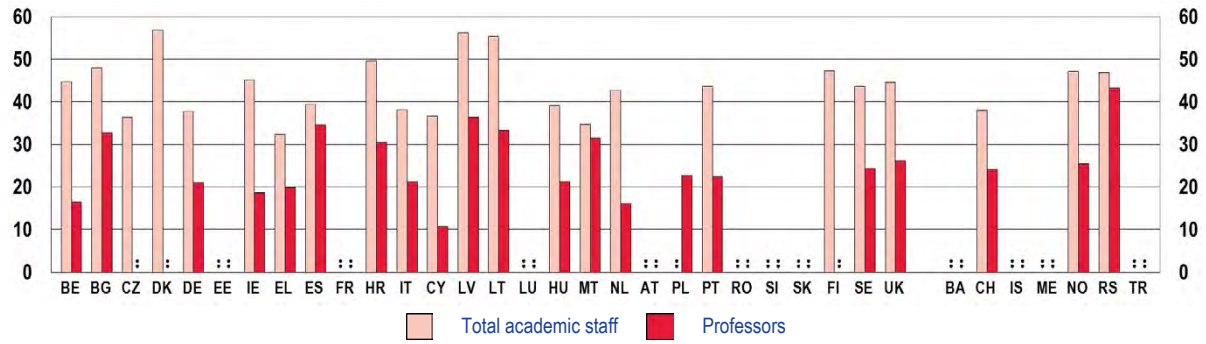
([17]) See for example: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *A Reinforced European Research Area Partnership for Excellence and Growth,* COM/2012/0392 final http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2012:0392:FIN

([18]) The European Tertiary Education Register (ETER) is a database of higher education institutions in Europe. See: https://www.eter-project.com/ [Accessed 15 May 2017].

lowest share being Cyprus, where only one out of ten professors is a woman. In Germany, Italy, Hungary, Poland and Portugal, only one professor out of five is a woman, and in Sweden, the United Kingdom, Switzerland and Norway only one out of four. Bulgaria, Spain, Croatia, Latvia, Lithuania and Malta have one third of their professor positions held by women, while Serbia is the only country with over 40 % of female professors.

Across Europe women are therefore still underrepresented among academic staff – especially in higher ranks. This aspect is particularly important when taking into consideration the fact that in many countries employment legislation for academic staff grants more job security to senior categories in the profession. Women are thereby likely to be underrepresented in prestigious and influential positions, and more exposed to precarious employment conditions.

Figure 3.5: Share of women among total academic staff and professors, 2013



	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT
All academic staff	44.7	47.9	36.3	56.8	37.7	:	45.1	32.2	39.4	:	49.6	38.2	36.7	56.2	55.3	:	39.1	34.7
Professors	16.4	32.7	:	:	20.9	:	18.6	19.9	34.6	:	30.5	21.2	10.7	36.3	33.2	:	21.2	31.4
	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK		BA	CH	IS	ME	NO	RS	TR
All academic staff	42.7	:	:	43.5	:	:	:	47.3	43.6	44.6		:	38.0	:	:	47.1	46.9	:
Professors	16.1	:	22.7	22.5	:	:	:	:	24.4	26.2		:	24.0	:	:	25.5	43.2	:

Source: European Tertiary Education Register (data extracted November 2016).

Explanatory notes

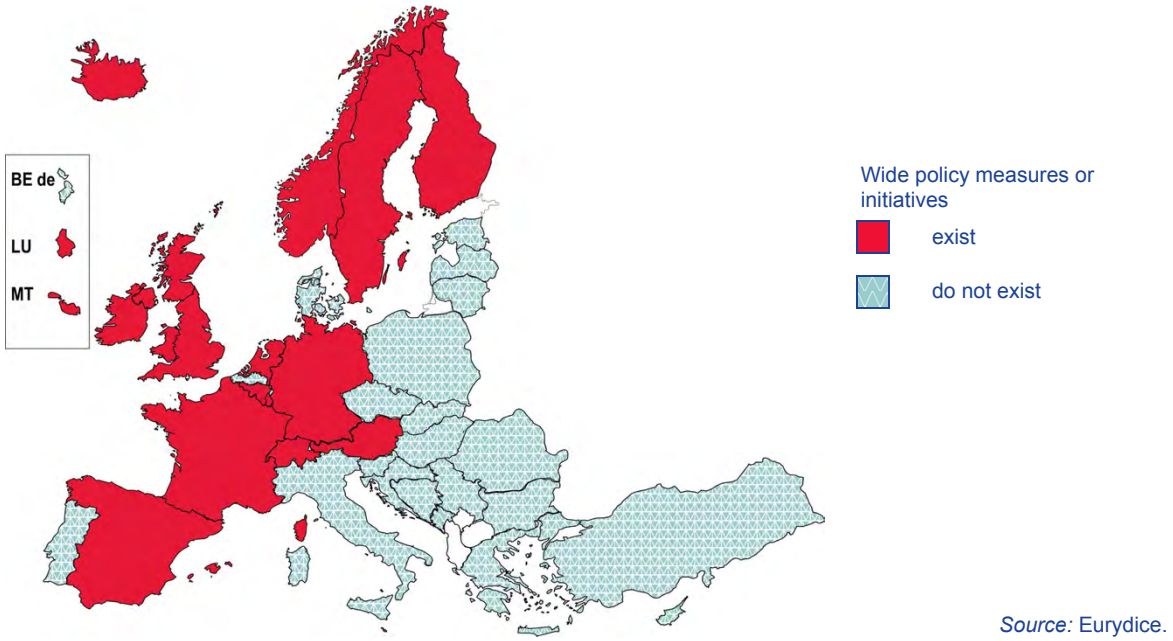
While the European Tertiary Education Register (ETER) includes data on academic staff in three types of institutions – public, private and private government-dependent –, the figure only considers public and private government-dependent institutions.

The definition of professors (referred to as 'full professors') used for the ETER data collection is available in Lepori et al. (2016, p. 58).

In some countries, specific measures that pursue gender balance among academic staff have been put in place (see Figure 3.6). These can either be part of equal opportunities legislation, be specific additional initiatives supporting legislation, or in some cases, they have been designed to cover a legislative vacuum.

Overall, 18 higher education systems report the existence of policy measures or initiatives aimed at preventing or limiting gender differences . In three of these cases, initiatives exist in spite of the lack of general or specific legislation on equal opportunities directly applicable to higher education institutions. This is the case in the French Community of Belgium, Malta and the Netherlands. The French Community of Belgium and Malta have specific committees with the objective of balancing gender participation in scientific and academic careers. In 2015, in the Netherlands, the Ministry of Education addressed the Parliament setting the objective of at least 30 % of female professors and 30 % of women on boards of academic institutions. As a follow-up, the ministry is engaging in agreements with universities with the aim of achieving these targets and formulating more ambitious ones.

Figure 3.6: Existence of wide policy measures or initiatives aimed at preventing or limiting gender differences in academic ranks, 2015/16



Source: Eurydice.

In 15 higher education systems, general or specific legislation on equal opportunities (see Figure 3.4) is complemented by concrete measures either formulated within the legislation itself or conceived as separate wide policy measures or initiatives.

Although approaches are very different, some countries present some commonalities in terms of setting targets or introducing a gender perspective in the recruitment process.

In France, Iceland and Norway, for example, the measure consists of ensuring that selection committees are composed of both genders. In France, at least 40 % of the members of any selection committee must be women and in disciplines where there is greater disparity between genders this rule can be derogated in favour of the least represented gender.

In Iceland, in addition to the minimum requirements for gender representation on the selection committee, there is an Equality Rights Committee that oversees all issues related to gender equality. This kind of committee is also present in Spain, where the so called 'equality units' are developed at the level of each institution and part of a broader, more articulate plan. The Strategic Plan for Equal Opportunities 2014-2016, in fact, foresees different actions including awareness raising, boosting gender studies and monitoring the gender split in all public institutions and governing boards.

A second approach is to establish minimum shares of recruited staff for each gender. This is the case in Germany and Austria, and partly in Luxembourg. In Austria, all staff categories should have a 50 % share of each gender and an equal split of men and women should be sitting on university boards. Moreover, it is a requirement that women are recruited when they are equally qualified as men, and each institution must have an equal opportunity board which deals with complaints in this field. In Germany, the research organisations involved in the Pact for Research and Innovation have set themselves the task of achieving target quotas for the recruitment of female researchers. The share for each staff category is based on the proportion of women at the career level immediately below. The long-term goal is to have an equal proportion of women and men at all career levels. Except for Nordrhein-Westfalen, however, this 'cascade model' is not mandatory for higher education institutions, there is no timeframe for implementation and institutions report on progress themselves to the German

Research Foundation. In Luxembourg, specific targets have been set only for the National Research Fund, the main funder of research activities in Luxembourg. As far as the University of Luxembourg is concerned, the fair balance in the representation of gender, including in executive positions, is part of the performance contract that the institution has signed with the government.

A group of countries (Ireland, Sweden, the United Kingdom and Switzerland) have policy measures aimed at incentivising gender balance in academia without prescriptive targets.

In Ireland, the Higher Education Authority (HEA) has carried out a comprehensive, system-wide review of higher education institutions' gender profiles and gender equality policies. An expert group conducted the review and a report was published in June 2016 ([19]). Among the recommendations are for example, the introduction of quotas on the basis of a cascade model similar to the one used in Austria; the use of the Athena SWAN institutional award similar to the models used in the United Kingdom (see below); and the introduction of a 40 % minimum representation of either of the two genders in the bodies taking decisions on resource allocation, appointments and promotions. The HEA also publishes annual data on gender breakdown of academic staff. Moreover, the Irish Research Council has adopted a Gender Strategy and Action Plan 2013-2020 supporting gender-equality in research careers, encouraging the integration of gender-analysis in the work of researchers and by gender-proofing the policies and procedures of the council itself.

In Sweden, an initiative aimed at mainstreaming gender equality, which is planned to run between 2016-2019, consists of committing higher education institutions to develop gender mainstream plans. This initiative is provided with five million kronor (SEK) allocated to the Swedish Secretariat for Gender Research to help institutions develop and implement these plans.

In the United Kingdom, top-level authorities have not directly developed policy measures. However, in 2005, the Equality Challenge Unit, a charity funded by the Scottish Funding Council, the Higher Education Funding Council for Wales and Universities UK, and through direct subscription from higher education institutions in England and Northern Ireland, established the Athena SWAN Charter. This encourages and recognises the commitment of institutions to advancing the careers of women in science, technology, engineering, maths and medicine. In 2015, the charter was expanded to work undertaken in arts, humanities, social sciences, business and law. In the academic year 2015/16 and 2016/17, the Scottish Government has reiterated its priority to address the underrepresentation of women on governing boards of colleges and universities and at senior academic levels.

The Swiss Federal Ministry of Education is running a federal gender-based equal opportunity programme since 2000, with the 10 Swiss cantonal universities, and each institution has an equality action plan as a consequence of this initiative. Moreover, there is specific monitoring in this area, with the availability of gender segregated data.

Finally, Finland is a case on its own, with concrete policy measures inscribed directly in the general legislation on equal opportunities. It consists of requiring each organisation employing more than 30 people to have in place a gender equality plan. Such a plan is produced annually, is prepared in cooperation with personnel representatives and must include: 1) an assessment of the gender state of the art in the organisation; 2) the planned measures for promoting gender equality; and 3) an evaluation of the extent to which measures previously developed have been implemented and were successful.

([19]) See: http://www.hea.ie/sites/default/files/hea_review_of_gender_equality_in_irish_higher_education.pdf [Accessed 19 May 2017].

Twenty-two systems report no wide policy measures or initiatives. Among these, only six countries (Bulgaria, Denmark, Lithuania, Portugal, Romania and Slovenia) have general or specific legislation on equal opportunities, leaving 16 countries with neither legislation nor policy initiatives in the field.

The above data shows the existence of different approaches to gender equality within the academic profession, probably reflecting local contexts and traditions. Although data shows that the largest differences in terms of gender distribution are in senior academic positions, measures are not necessarily tailored towards them, and concrete targets are rare. Moreover, Figure 3.6 visibly illustrates that half of the higher education systems, most of them on the eastern and southern parts of Europe, still do not have concrete policy measures or initiatives in place to ensure a more balanced distribution of staff across genders.

3.5. Recruitment management

The direct intervention of top-level authorities in the recruitment process is a rare phenomenon. Nevertheless, in some countries, public authorities might have an active role, especially as guarantors of the system or as impartial referee in the process. This also means that even in highly regulated systems, the lack of direct participation of top-level authorities in the recruitment process leaves institutions some margin of autonomy.

Figure 3.7 shows that in 10 higher education systems top-level authorities, under certain circumstances, play an active role in the management of the recruitment process.

The analysis of these 10 cases indicates that involvement in the recruitment process is conceived in different ways. The most common role taken by top-level authorities is to ratify the results or officially appoint academic staff. This is followed by initiating the recruitment process, managing appeals, and less frequently, joining the recruitment panels.

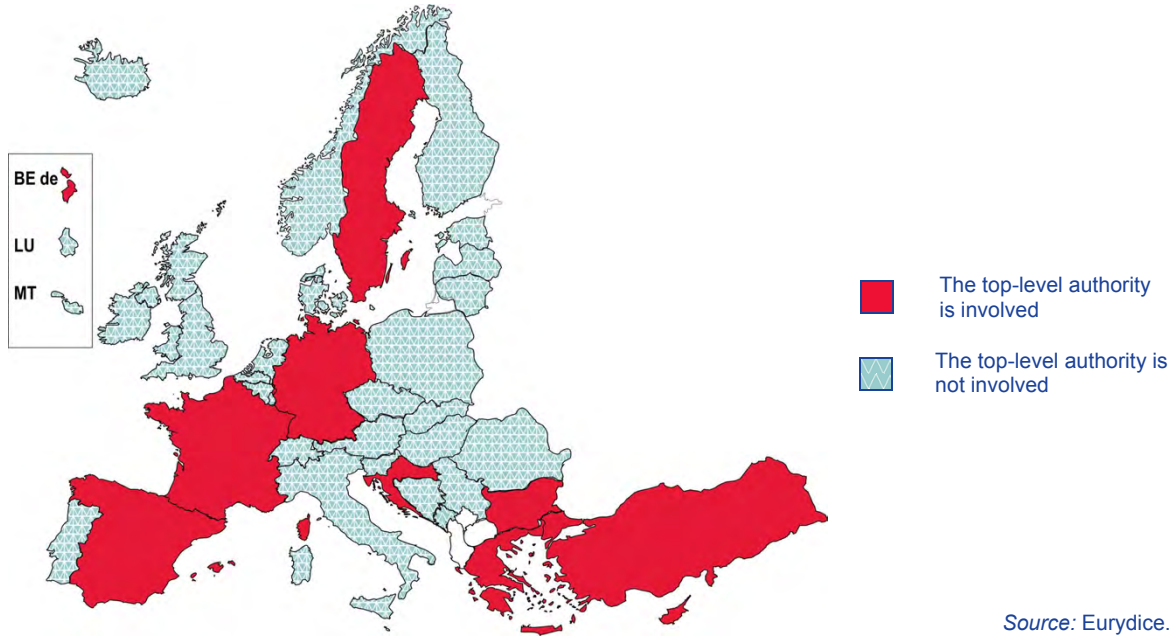
Top-level authorities ratify the results or officially appoint staff in Germany (some *Länder*), Spain, France and Turkey. In Turkey, this is applicable to all categories, while in Germany, Spain and France only for some staff categories: for professors and junior professors in Germany (some *Länder*), for career civil servant positions in Spain, and for associate professors (*maîtres de conférences)* and professors in France.

In four countries, prior authorisation from the competent authority is needed before initiating the recruitment procedure. For example, in Spain, the competent ministry (either at the central level or in the Autonomous Communities) intervenes in the initial phases through the approval of the employment offers for public universities and their publication in the official journal. Prior authorisation is also needed in Greece, Croatia and Cyprus.

In three systems (Bulgaria, Greece and Sweden), the top-level authorities are involved in case of appeals to the selection results. In addition to being involved by a candidate filing an appeal, Greece also conceives the possibility to initiate an inspection procedure of the recruitment process on its own initiative.

The Ministry of Education of the German-speaking Community of Belgium is the only case of direct involvement in the recruitment process. A representative of the public authority sits on the board of the higher education institution, the body in charge of the recruitment process. In addition, it plays a role in the ratification of the appointment by validating the formal qualifications of successful candidates.

Figure 3.7: Involvement of the top-level authority in the recruitment process, 2015/16



Source: Eurydice.

Explanatory notes

Involvement is considered here as direct participation of a representative of the top-level authority in the recruitment process, or the issuing of administrative acts that initiate the process or ratify the results.

Figure 3.7 shows that in the majority of systems, the top-level authority does not intervene in the recruitment process. However, as for other aspects of academic staff recruitment, in some countries regulations may differ depending on the type of higher education institution. For example, the French Community of Belgium validates application forms, manages appeals and ratifies appointments for the *Hautes Écoles* and the arts colleges. In Malta, a representative of the Ministry of Tourism sits on the recruitment panel for the Institute for Tourism Studies. In Austria, the Federal Ministry of Education manages appeal procedures, approves selection outputs and ratifies appointments for all university colleges of teacher education.

Moreover, in some systems, participation in the recruitment process by top-level authorities is indirect. Indirect participation means that the concerned authority does not have a role in the process itself, but participates in bodies and entities that supervise, control or guarantee the smooth functioning of those in charge of the recruitment. In Latvia, for example, the Ministry of Education and Science is a member of the Council of Higher Education, a body that oversees the work of the Councils of Professors carrying out the selection process. In France, regulations foresee that one third of the members of the National Council of Universities, the body that draws the list of candidates to be recruited, are nominated directly by the ministry in charge of higher education. In Lithuania, the Parliament appoints a supervisor of academic ethics and procedures who examines complaints and initiates investigations, also on recruitment processes.

Finally, in the Czech Republic, Hungary, Poland and Slovakia, the head of state officially grants the title 'professor'. Although this act cannot be considered a direct involvement of the public authority in the recruitment process, holding the title 'professor' is a condition to be recruited to such posts. Similarly, in Italy, the Ministry for Education, University and Research plays a role only in the *habilitation* process for associate professors and professors. Specifically, it publishes the competition, and establishes the evaluation committees. This process is not linked to recruitment itself, but is a compulsory step to access posts at senior levels.

Conclusions

In most European countries, top-level authorities play some role in regulating, the recruitment of academic staff. Only in a handful of systems do higher education institutions have full autonomy on all matters of academic staffing. In the systems that have regulations, rules vary both in scope and coverage. In terms of scope, in many countries legislation is limited to recruitment methods such as indicating that vacancies should be made public and filled through a competitive selection process. In such countries, higher education institutions are requested to regulate recruitment processes within their own statutes. In almost half of all European countries, the scope of legislation is broader and covers also aspects of the recruitment process, such as, for example, the composition of selection committees or the appeal procedures. In terms of coverage, in most countries, regulation on the recruitment of academic staff covers all staff categories, while in nine European countries it covers only some staff categories. In such cases, a common pattern is to regulate the recruitment of senior categories or categories that have access to indefinite contracts. In some cases the two aspects coincide.

Visibility and accessibility of vacancies, as well as the principle of selection of candidates is a common feature to countries with legislation in this domain. Even in countries that do not regulate recruitment of academic staff, practices seem to go in this direction. The most common recruitment method is through public vacancy, a method that grants higher education institutions full autonomy in the organisation and management of the process. Only in France are open competitions reported as a common recruitment method. Open competitions are based on more stringent regulations that ensure consistency of the system and are usually steered by top-level authorities. In both cases, publication of posts in the public domain is the rule.

In 19 European countries regulations cover some aspects of the recruitment process, with the most regulated aspect being the composition of the selection committee. Other aspects that are commonly regulated are appeal procedures, conflict of interest, and accessibility of evaluation documentation. Regulations on selection committees usually cover the number, expertise and provenance of its members. As far as the latter element is concerned, in some countries it is required that some members are from institutions other than the one recruiting and additionally from another country. In some countries, it is mandatory to have members sitting on the selection committee from the same subject field attached to the vacancy. Another common feature is that recruiters belong to the same or a more senior staff category than the one being recruited. Only sporadically, external stakeholders such as trade unions or representatives of employers' associations participate in such selections.

Legislation on equal opportunities directly affecting the recruitment of academic staff exists in the majority of European countries. Nevertheless many countries, particularly in eastern and southern parts of Europe, still lack legislation in the field. Where it exists, the most common aspect covered by such legislation is gender equality, an area that is also complemented in many cases by specific policy measures. However, women are still generally underrepresented in the academic world. Higher ranks of academia are largely a male-dominated world and policy measures do not usually target this issue specifically.

Top-level authorities rarely play a role in the recruitment process of academic staff. When this is the case, it is as initiator of the process, validator of the results or guarantor of the system.

CHAPTER 4: EMPLOYMENT AND WORKING CONDITIONS IN ACADEMIA

Choosing a career in academia and then progressing to the most senior positions requires a huge investment of time and effort all over Europe. The question can therefore be raised as to whether the academic profession offers benefits that compensate for such personal commitment. The purpose of this chapter is to examine this question.

One way of considering the benefits of a profession is to look at working conditions. This concept is defined in many ways. For example, the International Labour Organization (ILO) defines working conditions as 'a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace' (ILO, 2016). For the European Foundation for the Improvement of Living and Working Conditions (Eurofound), working conditions are 'the result of the interaction between characteristics of a job, the work, the company, and the individual' (Eurofound, 2014, p. 19). Szekér and Van Gyes (2015) note that working conditions are often mentioned in connection with the concept of job quality or quality of work. This approach is used in a model proposed by Vandenbrande et al. (2013) that refers to four dimensions of job quality, namely job content, working conditions, employment conditions and social relations at work.

Taking into consideration various ways of defining working conditions and, more generally, job quality, this chapter discusses benefits of the academic profession in five interlinked sections. The chapter starts by looking at employment conditions in academia, enquiring about job security of academic staff. The second section examines the way working time of academics is regulated, the content of regulations and, where possible, self-reported working hours. The third section considers academic staff remuneration, specifically the legal frameworks that regulate this area and, in some instances, the amount of income as reported by academics. The fourth section discusses opportunities for continuing professional development (CPD), looking at organising principles of CPD in academia, the provision of training in some specific areas and possibilities for academic staff to take paid or unpaid leave for CPD or other purposes. Finally, the fifth section examines the extent to which central authorities monitor employment and working conditions in academia. While the selection of topics discussed is by no means exhaustive, it is meant to illustrate some key issues relevant to employment and working conditions in academia in a cross-country comparative perspective.

The chapter is mainly based on data collected from the Eurydice National Units. Whenever possible and appropriate, the Eurydice data is complemented by data from other sources, in particular the EUROAC study and the UNESCO/OECD/Eurostat (UOE) data collection ([1]).

4.1. Employment conditions in academia

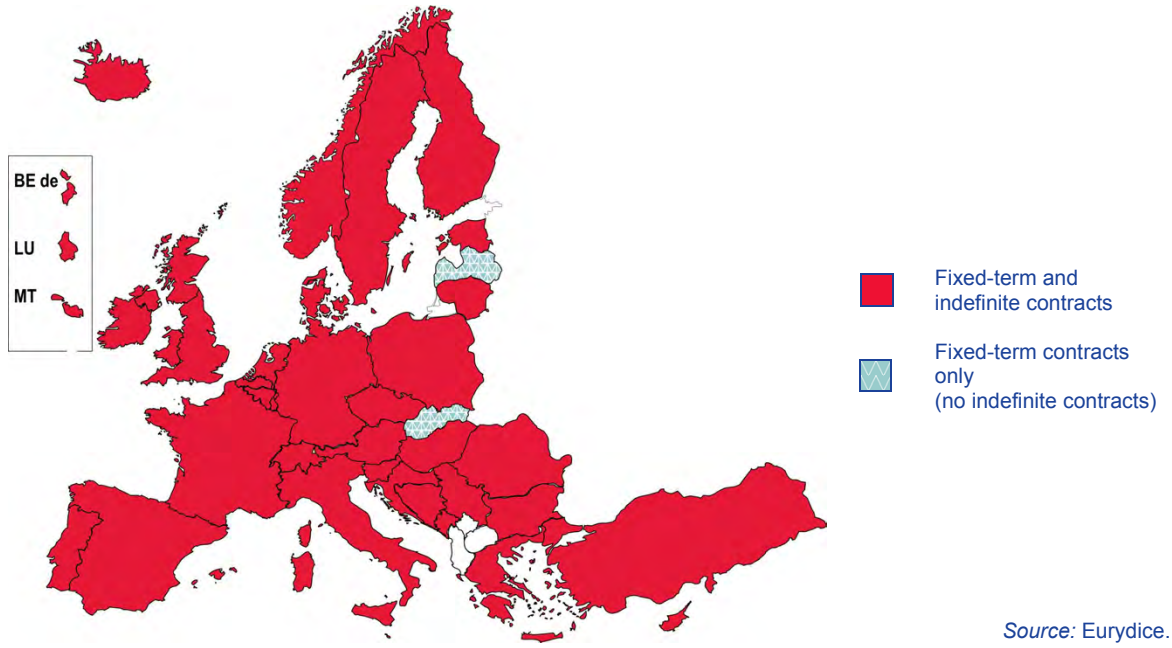
The concept of employment conditions refers to the contractual arrangements between employer and employee (Vandenbrande et al., 2013, p. 20). When discussing contractual arrangements, the distinction is commonly made between indefinite (or permanent) contracts and fixed-term (or temporary) contracts. The first contract type is generally associated with a high degree of job security, whereas the second type with less stable and less secure employment conditions. Starting from the above distinction, this section first looks at the extent to which the academic profession benefits from secure contractual arrangements. The second part enlarges the first perspective by looking at the employment status of academics, namely whether they benefit from civil servant status or whether they have an employee status. The third part looks at whether employment conditions in academia are changing over time, and, if so, in which direction.

([1]) For more details on data sources and methodology, see the Introduction to this report.

4.1.1. Employment contracts in academia

As Figure 4.1 shows, in almost all European countries, both fixed-term and indefinite contracts are used to employ academics. Latvia and Slovakia are the only exceptions to this pattern, providing no opportunity for academic staff to conclude a contract for an indefinite period of time. More precisely, in Latvia, legislation limits the duration of contracts with staff in the main academic career path – including professors, associate professors, assistant professors, lecturers and assistants – to six years. In order for their contracts to be renewed, the staff categories listed above have to undertake a procedure known as 'election', within which they have to demonstrate their professional competence according to defined criteria. Contracts with other staff categories (including, for instance, visiting professors or staff delivering specific courses) are shorter, either concluded for a period of up to two years or hourly-paid. A comparable situation can be observed in Slovakia, where employment contracts of academics are generally concluded for a period of up to five years. Only professors and associate professors who have been working in academia for at least nine years and are signing a third contract can be offered a longer-term definite contract, and this may extend to the age of 70.

Figure 4.1: Employment contracts in academia, 2015/16



Source: Eurydice.

Explanatory notes

'Indefinite contracts' refer to contracts for an indefinite period of time. This concept includes permanent contracts as well as contracts without permanent guarantee, but with no predefined term. 'Fixed-term contracts' refer to contracts that expire at the end of the period specified.

Country-specific note

Slovenia: Regardless of the type of contract, all academics except professors have to be reappointed every five years. The reappointment procedure considers various areas, including educational attainment, academic achievements, teaching skills and linguistic competencies (for more details, see Chapter 2, Section 2.2). If staff fail in the procedure, the contract is terminated.

Statistics reported by countries in which both contract types exist – i.e. fixed-term and indefinite – suggest substantial cross-country differences in the proportion of academics with an indefinite contract. The highest proportion of indefinite contracts – 80 % or more – is reported by France, Malta and Turkey, followed by Sweden, where around 70 % of academics have an indefinite contract. At the other end of the spectrum are Germany, Estonia, Austria (the university sector), Finland (the university sector) and Serbia, with 30 % or fewer academics with an indefinite contract. Other countries reporting

national statistics (namely the French Community of Belgium ([2]), Ireland, Spain, Italy and the United Kingdom) are situated between these two extremities.

National statistics on contractual arrangements of academics should, however, be interpreted with caution, since their production does not follow a harmonised methodology. Indeed, staff categories considered are not necessarily the same (i.e. the scope of the concept of 'academic staff' may be wider or narrower), and there are also variations in how countries define and interpret 'indefinite' and 'fixed-term' contracts. This suggests that a further investment in developing shared concepts and definitions would be needed to achieve comparable cross-European data on contractual arrangements of academics.

It is also noteworthy that top-level authorities in a number of countries do not collect data on contractual conditions of academic staff (see Figure 4.8). This opens the question of the monitoring of employment and working conditions in academia that is further discussed in Section 4.5.

Career progression and contractual stability

One strong determinant of contractual stability is the stage of academic career. Indeed, the research evidence – including the diagrams annexed to this report – shows that junior positions often involve fixed-term or project-based contracts, whereas advanced stages of academic career go hand in hand with more stable contractual arrangements. In other words, young academics must face periods of contractual uncertainty, whereas seniority generally brings an opportunity for permanent employment (Aarrevaara, Dobson and Wikstrom, 2015; Brechelmacher et al., 2015; Kwiek and Antonowicz, 2015). Evidence also suggests that there is a strong relationship between contractual stability, part-time/full-time employment and the stage of academic career. More precisely, indefinite (or permanent) contracts prevail for full-time and senior positions, whereas fixed-term contracts are often linked to part-time assignments and junior positions (Ates and Brechelmacher, 2013). In this context, the transition from fixed-term employment to a full-time permanent position can be seen as a milestone in an academic career (Kwiek and Antonowicz, 2015).

Beyond the general pattern linking seniority to contractual stability, there are further noteworthy cross-country differences. They are particularly noticeable when comparing contractual arrangements of university professors across European higher education systems. Indeed, as the Eurydice data collection shows (see Figure 4.2), in around two-thirds of European higher education systems, all or virtually all university professors (more than 90 %) have an indefinite employment contract. In contrast, in around one-third of systems, indefinite contracts coexist with fixed-term contracts, meaning that some university professors have an indefinite contract, whereas others have a fixed-term contract. Moreover, as mentioned in this section previously, in two higher education systems – Slovakia and Latvia – there are no indefinite contracts in academia (see Figure 4.1) and, consequently, all professors at universities work on a fixed-term basis.

The same topic can also be examined through available surveys, namely data produced within the EUROAC study ([3]). According to EUROAC (Ates and Brechelmacher, 2013, p. 25), more than 90 % of senior academics at universities in Germany ([4]), Ireland, the United Kingdom and Norway, and more than 80 % in Portugal and the Netherlands, benefit from a permanent contract or a contract with no

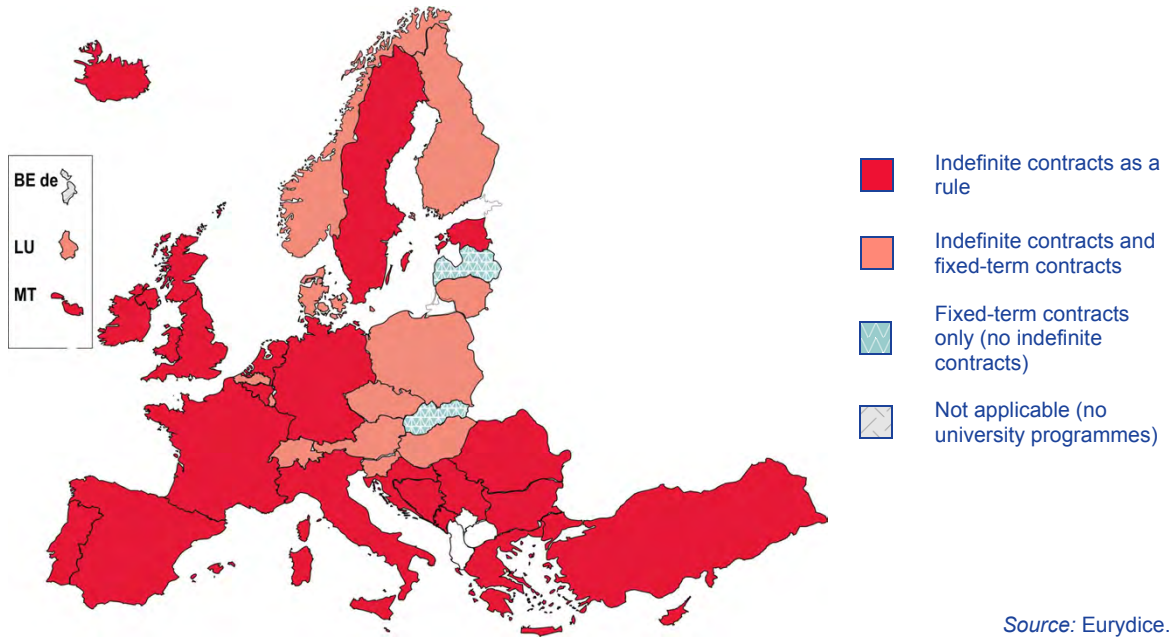
([2]) Statistics reported cover *Hautes Écoles* (68 % of academic staff with an indefinite contract) and arts colleges (47 % of academic staff with an indefinite contract). No data is available on the proportion of academic staff with an indefinite contract at universities.

([3]) For more details on the EUROAC study, see the Introduction to this report (countries covered by the study: Germany, Ireland, Croatia, Italy, the Netherlands, Austria, Poland, Portugal, Finland, the United Kingdom, Norway and Switzerland).

([4]) According to more recent national data, around 80 % of professors in Germany have an indefinite contract (Statistisches Bundesamt, 2015).

predefined term. In contrast, fixed-term contracts are quite common among senior academics at universities in Finland (34 %) and Poland (30 %) (ibid.). Overall, these EUROAC findings are coherent with information presented in Figure 4.2.

Figure 4.2: Employment contracts of university professors, 2015/16



Source: Eurydice.

Explanatory notes

'Indefinite contracts' refer to contracts for an indefinite period of time. This concept includes permanent contracts as well as contracts without permanent guarantee, but with no predefined term. 'Fixed-term contracts' refer to contracts that expire at the end of the period specified.

When referring to 'indefinite contracts as a rule', the figure refers to situations where all or virtually all university professors (more than 90 %) have an indefinite contract.

When referring to 'university professors', the figure refers to academic staff reported at the highest stage of the academic structure (see the national diagrams annexed to this report) designated as 'professors' (or equivalent).

Country-specific notes

Belgium (BE de): There are no university programmes.
Denmark: There are two categories of professors (see Annex 1): one working with indefinite contracts and the other with fixed-term contracts. The figure combines these two patterns (i.e. both contract types are indicated).
Germany: The figure does not cover junior professors who work with fixed-term contracts.

Type of higher education institution and contractual stability

In higher education systems with several sub-sectors (i.e. different types of institutions), contractual conditions may vary from one sector to another. The most extreme situation can be observed in Finland where, according to the Eurydice data collection, almost 80 % of academics at vocationally-oriented higher education institutions (polytechnics) have an indefinite contract, whereas the same applies only to around 30 % of those working at universities. Austria is another example of substantial cross-sector differences, with around 75 % of academics at university colleges of teacher education benefiting from indefinite contracts, compared to only around 30 % of academics at universities ([5]). A comparable situation, though with less substantial difference between sectors, can be observed in Malta, where all academics at the Malta College of Arts, Science and Technology (MCAST) benefit from an indefinite contract, compared to around 80 % of staff at the University of Malta (UoM). Beyond the above examples reported within the Eurydice data collection, the EUROAC project ([6]) indicates the

([5]) No data is available for universities of applied sciences.

([6]) For more details on the EUROAC study, see the Introduction to this report.

same pattern – i.e. a higher share of indefinite contracts outside the university sector – for the Netherlands and Switzerland, and confirms it for Finland (Ates and Brechelmacher, 2013, p. 27). In contrast, in Poland, indefinite contracts are more common in universities than in other higher education institutions (ibid.). However, this applies only to senior staff and not to junior academics. Finally, still according to EUROAC, in Germany, Ireland and Portugal, there are no substantial differences in terms of contractual arrangement between academics at universities and at other higher education institutions (ibid.).

Other factors influencing contractual stability

The EUROAC study also points to other characteristics related to contract stability, including age and gender. When age is considered, data show that at comparable positions, older academics are more likely to have a permanent contract than younger staff. More specifically, when considering all the countries for which EUROAC data is available ([7]), 77 % of university professors between the ages of 36 and 45 have a permanent or continuous contract, whilst this holds true for 91 % of university professors who are over 45 (Ates and Brechelmacher, 2013, p. 26). As regards gender, the EUROAC data suggests the permanence of some barriers to women's careers, yet, calls for further research in this area (Goastellec and Pekari, 2013).

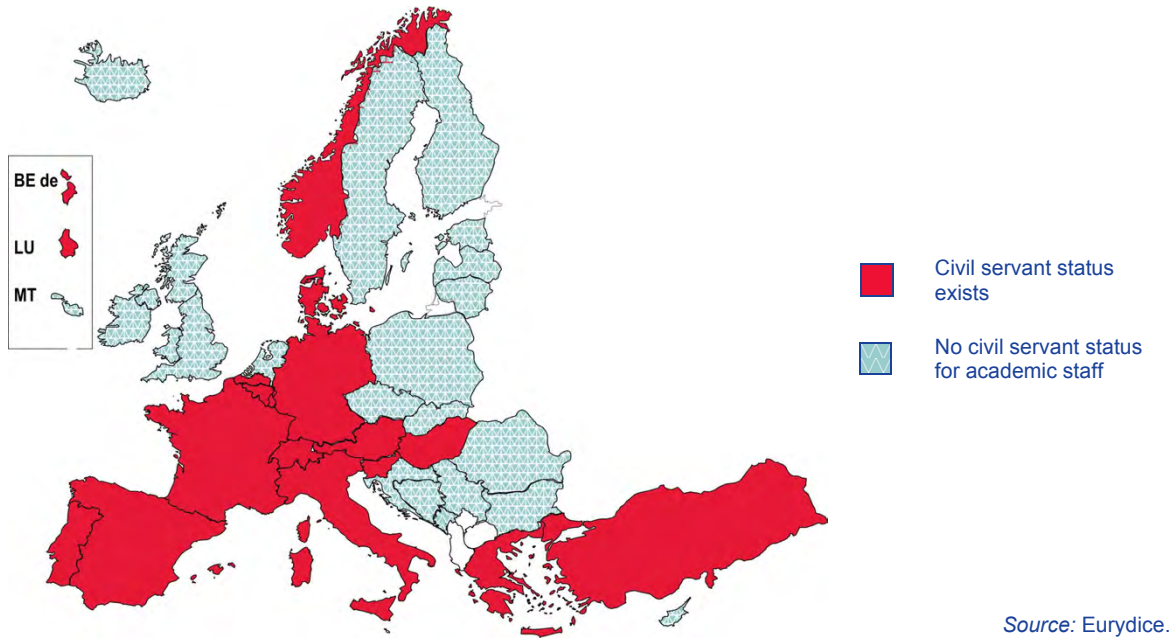
4.1.2. Existence of civil servant status

In around half of all European higher education systems, academics at public higher education institutions are, or may be, civil servants, meaning that they are employed by the public authority in accordance with legislation regulating the functioning of public administrations. As Figure 4.3 shows, civil servant status is more common in south-western Europe than in north-eastern Europe.

However, the existence of the civil servant status does not imply that all academics at public institutions are civil servants. Indeed, a generalised civil servant status in public/state higher education institutions exists only in a few countries (e.g. Greece, Hungary, Slovenia, Switzerland, Norway and Turkey), whereas in other instances only some academics are civil servants. In the latter case, factors that influence the civil servant status are similar to those that determine the type of employment contract (see Section 4.1.1). In particular, the civil servant status is closely linked to certain stages of the academic career, meaning that it is often associated with medium-rank and senior positions, rather than junior positions. For example, in France, the civil servant status applies to *maîtres de conférences* and *professeurs des universités*, which are the two highest positions in the academic career ladder, but not to junior staff. Moreover, in countries with several types of public higher education institutions or sectors, the civil servant status may characterise employment arrangements in a particular type of institution or sector. For example, in Austria, civil servants can be found at universities (where this status is being phased out) and university colleges of teacher education, but not at universities of applied sciences.

([7]) For more details on the EUROAC study, see the Introduction to this report.

Figure 4.3: Existence of civil servant status for academic staff, 2015/16



Source: Eurydice.

Explanatory notes

Across Europe, the term 'civil servant' is not defined in the same way and the status does not bring the same benefits. When referring to 'civil servants', the figure refers to staff employed by the public authority/administration, usually following an open competition. The employment/appointment is in accordance with legislation regulating the functioning of public administrations, distinct from the one governing contractual relations in the public or private sector. In some countries, academic staff may be appointed with the expectation of a lifelong career as career civil servants. Usually, mobility from one institution to another does not affect the contractual status. Common synonyms: 'public official', 'official', 'functionary'.

Country-specific notes

Denmark: The civil servant status is being phased out. At present, only a limited number of academics at universities and university colleges (universities of applied sciences) still maintain civil servant status.
Austria: Academic staff with the civil servants status can be found at universities and university colleges of teacher education. However, since 2002, academics at universities are no more hired as civil servants and this status is being phased out. There are no civil servants at universities of applied sciences.
Luxembourg: Since the creation of the University of Luxembourg in 2003, civil servant positions are being phased out. Currently, civil servants make up for a minority of academics.
Finland: A recent reform (2014) of the universities of applied sciences has changed the employment status of the personnel in some of these institutions. While prior to the reform some universities of applied sciences were municipal entities whose employees were civil servants, there are now companies with employee contracts.

4.1.3. Policy changes and trends

One key question is whether employment conditions of academic staff are changing over time, and, if yes, in which direction. Within the Eurydice data collection, countries were asked to specify whether during the past five years there have been any policy changes impacting job security of academic staff. While most countries indicated no such changes, about a dozen provided information on revised regulations or noteworthy trends. These go in the direction of both improving and declining working conditions.

Four higher education systems – namely the German-speaking Community of Belgium, the Czech Republic, Estonia and the Netherlands – have recently adopted regulatory changes that facilitate the access of academics to indefinite contracts. The most substantial change concerns Estonia, where, since 2015, academics can sign indefinite contracts, whereas previously, all contracts in academia were fixed-term. Similarly, in the Czech Republic, until 2012, junior and intermediate categories of academic staff had to be employed on a fixed-term basis before signing an indefinite contract, whereas now they can be hired directly on an indefinite basis. In the German-speaking Community of Belgium, regulatory changes adopted in 2014 shortened the duration of work experience in academia

necessary for a permanent appointment: instead of six years, regulations now refer to 720 days. Another country belonging to this cluster – the Netherlands – adopted in 2015 a legal framework reducing the maximum cumulative duration of temporary contracts from six to four years (sometimes two years), meaning that employees with a fixed-term contract now receive an indefinite contract sooner than before. This legal framework, however, applies to all sectors, not only to higher education.

Austria partly belongs to the above cluster; yet, not because of regulatory changes, but based on recent strategic policy documents. More specifically, two strategic documents – the 2015 'Action Plan for a Competitive Research Area' and the 2016 'University Development Plan 2016-2021' – promote an increased share of academics in universities with permanent contracts and, consequently, the reduction of fixed-term contracts.

In contrast, some countries report trends pointing to declining employment conditions of academics and, more generally, reduced employment opportunities in academia. For example, in Finland, the consolidation of the state budget and cuts in the funding for higher education and research have led to a significant decrease in the number of personnel employed in higher education institutions. In Latvia, the higher education sector is yet to recover from a dramatic budget reduction experienced during the economic crisis (almost 50 % in 2009/10). This has had an impact on various aspects of academic life, including the remuneration of academic staff, the number of contact hours delivered within study programmes as well as the research activity of higher education institutions. The situation has been partly counterbalanced by a new higher education funding model that is being implemented since 2015 and provides some financial incentives for academia. Similarly, recent trends reported by the United Kingdom include a growth in the use of short-term contracts and so-called 'zero hours' contracts (i.e. contracts where the employer is not obliged to provide regular work), as well as 'teaching-only' contracts, especially among part-time academic staff. In contrast, in Greece, short-term or temporary contracts in academia are now almost non-existent as, due to severe budgetary cuts, most staff on these contracts lost their employment, and few new contracts have been issued.

Some changes have a less clear-cut character, including the 2011 regulatory change adopted in Hungary in relation to senior academics. Under the previous framework, higher education institutions could not oblige professors to retire before the age of 70, whereas now they can be required to retire when they reach the official retirement age of 62. While this regulatory change aligns the situation of senior academics with the general labour market rules, it also decreases their job security.

Trends and changes related to job security of academic staff have also been examined within various research projects, including the EUROAC project ([8]). The outcomes of the project suggest that the direction of transformations in the higher education sector during the last two decades most often implies less stable and less secure working conditions (Kwiek and Antonowicz, 2015). In particular, due to budgetary constraints, there has been an overall increase in fixed-term contracts, often based on external project-based resources (Brechelmacher et al., 2015). According to Fumasoli, Goastellec and Kehm (2015, p. 206), this 'comes with an increased competition among academics for positions, financial and symbolic resources (prestigious fellowships, publications in top journals of the discipline, etc.)'. Research evidence also suggests that these transformations have an impact on academic career pathways, with traditional hierarchical structures being replaced by a flatter (or more egalitarian) senior-junior relationship. More precisely,

> the creation of these temporary positions allows to go against the historical hierarchical structure and to promote accelerated careers for a small number of distinguished junior scholars. Even if the number of individuals concerned remains marginal, the existence of these new career models signals the possibility of an alternative and constitutes incentives for universities and disciplines to rethink the internal structure of academic careers (Fumasoli, Goastellec and Kehm, 2015, p. 206).

([8]) For more details on the EUROAC study, see the Introduction to this report.

4.2. Duties and working time of academic staff

Alongside contractual arrangements, job content is yet another important aspect of job quality. An appealing job is generally associated with qualities such as challenging and interesting work, task variation, responsibility and autonomy. Closely related to job content are working time arrangements, i.e. working hours, overtime work, weekend work, etc.

This section examines duties and working time of academics in three parts. The first part, based on the Eurydice data collection, looks at the extent to which duties and working time of academics are subject to top-level regulations. Building on the information on regulatory frameworks, the second part provides details on the actual working time of academics, using the outcomes of the EUROAC project ([9]). Finally, the third part, based on the UNESCO-UIS/OECD/Eurostat (UOE) data collection, discusses part-time work in academia.

4.2.1. Regulatory frameworks

Top-level authorities intervene in defining duties of academics only to a limited extent. Commonly, regulations include general references to some duties – e.g. 'teaching', 'research' – as a way to define the concept of academic staff and/or differences between different staff categories. Beyond these general statements, top-level regulations often do not provide further guidelines on tasks and duties of academics, and the amount of time they should allocate to them. Indeed, as Figure 4.4 shows, only around one-third of all European higher education systems have regulations providing more details on these aspects, defining, in particular, the minimum time academics should allocate to distinct activities. However, the existence of these frameworks does not necessarily mean that they cover all academic staff categories and/or all higher education sectors that may exist within a single higher education system. Regulations may, for instance, concentrate on staff with civil servant status (where such status exists) or cover only universities or only vocationally-oriented higher education institutions (for more details on these aspects, see Country-specific notes related to Figure 4.4).

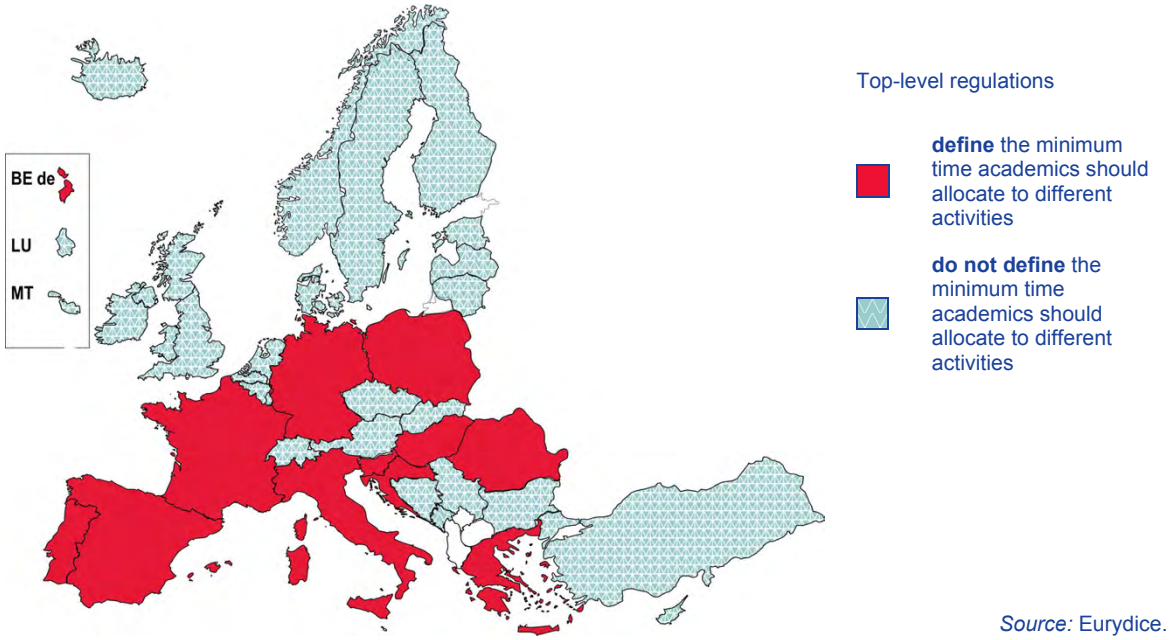
The table associated with Figure 4.4 provides information on the minimum time academics are expected to allocate to teaching and/or teaching-related activities. It shows that regulations covering these aspects are phrased in very different ways. For example, some regulatory frameworks quantify teaching and teaching-related activities in terms of weekly hours, whereas other frameworks refer to annual workload. Beyond hours, regulations also refer to other concepts, including 'units' lasting at least 45 minutes (Germany), ECTS (Spain), or 'normative hours' (Croatia) that, in terms of real time, depend on the type of teaching activity (e.g. teaching at undergraduate level, teaching at postgraduate level, delivering classroom exercises, etc.).

While the above aspects limit cross-country comparability, the content of regulations still points to some patterns that can be observed across several higher education systems. In particular, teaching workload is commonly defined according to academic staff categories, with a tendency to impose less teaching on senior academics, compared to junior and middle-rank staff or staff outside the main academic career path. For example, in France, secondary school teachers working at universities are expected to deliver 384 teaching hours per year, whereas academics in the two highest positions within the main academic career path (i.e. *maîtres de conférences* and *professeurs des universités*) are only expected to deliver between 128 and 192 teaching hours, depending on the type of teaching activity. A comparable situation can be observed in Hungary, where full professors are required to deliver at least eight contact hours per week, whereas the minimum expectation towards associate professors (docents) is ten hours, and towards staff in lower ranks, including assistant professors, 12 hours. The same pattern can be observed in Poland, Romania and Slovenia. Only Germany and

([9]) For more details on the EUROAC study, see the Introduction to this report.

Croatia show a different profile, with regulations imposing a higher number of teaching hours to staff in higher ranks than to staff in lower ranks. In Germany, full professors are expected to deliver eight teaching 'units' per week (i.e. sessions lasting at least 45 minutes), whereas junior professors are only expected to deliver between four and six 'units'. In Croatia, professors are expected to deliver 300 'normative hours' per year, while assistants are expected to deliver only 150 'normative hours'.

Figure 4.4: Top-level regulations on the minimum time academics should allocate to different activities, 2015/16



Source: Eurydice.

Minimum time that academics should allocate to teaching and/or teaching-related activities

BE de	Staff with the civil servant status: 16 hours per week
DE	Between 4 and 8 'units' per week, depending on the staff category (a teaching unit = at least 45 minutes)
EL	6 hours per week (all full-time academic staff)
ES	Career civil servants: teaching activity corresponding to 24 ECTS per year (approx. 8 hours per week) + 6 tutoring hours per week (variations possible, depending on both professional status and research activity)
FR	Between 128 and 384 hours per year, depending on the staff category
HR	Between 150 and 300 normative hours per year, depending on the staff category
IT	Professors: at least 350 hours per year; research staff: up to 350 hours per year
HU	Between 8 and 12 hours per week, depending on the staff category
PL	Between 120 and 540 hours per year, depending on the staff category
PT	Staff at universities: 6 hours per week (maximum set at 9 hours per week); staff at polytechnics: 6 hours per week (maximum set at 12 hours per week)
RO	Between 7 and 11 hours per week, depending on the staff category
SI	Staff at universities: between 5 and 10 hours per week, depending on the staff category; staff at vocational colleges: between 16 and 20 hours per week, depending on the staff category

Source: Eurydice.

Explanatory notes

Top-level regulations refer to legislation or other regulations issued by central (top-level) authorities.

Countries with several higher education sectors that differ in terms of regulations are represented by the university sector.

The figure does not cover regulations defining the overall working time of academic staff (e.g. 40 hours per week). It considers only regulatory frameworks that explicitly refer to time to be allocated to distinct activities/duties (e.g. teaching, research, administrative duties, etc.).

The table associated with the figure refers only to countries with top-level regulations on the minimum time that academic staff should allocate to teaching and/or teaching-related activities. Countries with no such regulations (or no regulations in the university sector) are not covered. The minimum time indicated refers to full-time positions.

Country-specific notes (Figure 4.4)

Ireland: There are no regulations on the minimum time academics at universities should allocate to different activities (e.g. teaching, research, supervision). However, in the institute of technology sector, the minimum teaching expectation is situated between 16 and 18 hours per week, depending on the staff category.
Austria: There are no regulations on the minimum time academics at universities and universities of applied sciences should allocate to different activities. However, in university colleges of teacher education, the minimum teaching expectation is situated between 160 and 480 hours per year, depending on the staff category.

Data also suggest that academics at vocationally-oriented higher education institutions are expected to deliver a higher number of teaching hours compared to those at academically-oriented institutions (universities). The clearest example is provided by Slovenia, where staff at vocational colleges are expected to deliver between 16 and 20 teaching hours per week (depending on the staff category), whereas staff at universities are expected to teach only between five and ten hours per week. Ireland points to a similar pattern, with staff in the Institute of technology sector expected to teach between 16 and 18 hours per week (depending on the staff category). However, in the case of Ireland, the comparison with the university sector is not possible as there are no regulations covering these aspects in the latter sector. In Portugal, the expected minimum number of teaching hours is the same at universities as at polytechnics (six hours per week), but the expected maximum number is higher at polytechnics (12 hours) than at universities (nine hours).

4.2.2. Actual working time of academic staff

As shown in the previous section, top-level authorities provide only limited guidance on duties and working time of academic staff. It is therefore interesting to examine this topic from a different perspective: from the viewpoint of academics. While there is no survey providing relevant data for all European countries, the EUROAC project allows assessing the situation in a dozen countries ([10]). Within the project, academics were asked to quantify their weekly working hours during the period when classes are in session and when classes are not in session. They were also asked to indicate the time they allocate to different activities, namely to teaching, research, administration, service and other activities (Kwiek and Antonowicz, 2013).

The EUROAC data show that the average working week varies substantially by country. When considering all academics (i.e. junior, senior, in all types of institutions) and the period when classes are in session, the longest working week – lasting between 45 and 47 hours – is reported by academics in Ireland, Italy and Poland; and the shortest – 33 and 38 hours respectively – by those in Norway and the Netherlands (Kwiek and Antonowicz 2013, p. 43). Other countries for which data is available – namely Germany, Austria, Portugal, Finland, the United Kingdom and Switzerland ([11]) – are situated between these extremities (ibid.). Beyond the average data, there are substantial differences between junior and senior academics. More precisely, while in the case of junior academics, the weekly average time ranges between 27 hours (Norway) and 45 hours (Ireland and Poland) ([12]), senior academics work, on average, between 40 hours (the Netherlands) and 52 hours per week (Germany) ([13]). In most countries for which data is available – 8 out of 11 – senior

([10]) Germany, Ireland, Croatia, Italy, the Netherlands, Austria, Poland, Portugal, Finland, the United Kingdom, Norway and Switzerland. For more details on the EUROAC study, see the Introduction to this report.

([11]) While Croatia also participated in the EUROAC study, its data on working time is not included in Kwiek and Antonowicz (2013).

([12]) Slightly different average working hours of junior academics are presented in Höhle and Teichler (2013a, p. 258). This is related to the fact that the latter source considers only junior academics at universities employed on a full-time basis. Using this approach, the longest working week is reported by junior academics in Ireland (47 hours on average), whereas junior academics in almost all other countries report on average between 41 and 45 weekly hours. Norway – with junior staff reporting 28 weekly hours – is an exception, but this can be explained by the fact that data also includes doctoral candidates who are expected to work fewer hours, even though their employment is not regarded as a part-time one (ibid.)

([13]) Slightly different average working hours of senior academics are presented in Höhle and Teichler (2013a, p. 258). This is related to the fact that the latter source considers only senior academics at universities employed on a full-time basis. Using this approach, the

academics report working, on average, 45 or more hours per week (ibid.). Thus, the reported working week of senior academics tends to be rather long. This may be partly explained by additional responsibilities of senior staff, including administrative responsibilities and/or functions in various decision-making bodies (ibid.).

The EUROAC data also show that activities of academic staff follow quite closely the academic calendar. Unsurprisingly, when classes are in session (the lecturing period) academics commonly dedicate more time to teaching compared to periods when classes are not in session. However, beyond this general pattern that applies to all the surveyed countries, there are cross-country differences in the time budget that academics in different countries dedicate to research and teaching. For example, when classes are in session, academics at universities in Switzerland, Norway, Germany and Austria still spend considerable amounts of time on research, whereas their counterparts in Portugal, the Netherlands, Poland and Ireland devote substantial time to teaching (Kwiek and Antonowicz, 2013). Moreover, as shown by Bentley and Kyvik (2012) ([14]), the allocation of time to different activities follows the junior/senior divide, with senior staff allocating generally greater time to research over teaching. This is coherent with the content of regulatory frameworks presented in Section 4.2.1, showing that regulations tend to impose less teaching to senior academics compared to junior or middle-rank staff. It must be, however, noted that while professor positions typically entail fewer teaching hours, they generally involve more administrative duties (Bentley and Kyvik, 2012). Finally, in countries with several types of higher education institutions, self-declared hours spent on different activities vary between academics at universities and academics at other higher education institutions (Kwiek and Antonowicz, 2013). More precisely, activities of staff at universities are distributed more or less equally between teaching and research, whereas staff at other higher education institutions are predominantly in charge of teaching (ibid.). This is, once again, coherent with information presented in Section 4.2.1, showing some differences in terms of regulations between academically- and vocationally-oriented higher education institutions.

Overall, research on working time of academics points to substantial differences between countries, between institutions existing within countries and between different academic staff categories (see Bentley and Kyvik, 2012; Höhle and Teichler, 2013b; Kwiek and Antonowicz, 2013). These differences seem to be determined by a range of factors, including system structures (Kwiek and Antonowicz, 2013), institutional expectations, professional norms and the proportion of staff by academic field (Bentley and Kyvik, 2012).

4.2.3. Full-time and part-time employment

Full-time and part-time employment is one of the themes to be considered when discussing employment and working conditions in academia. This topic is linked not only to working time of academics, but also to their contractual arrangements. Indeed, part-time work in academia is generally associated with less stable employment and contractual conditions than full-time work. Consequently, the transition from part-time contracts to full-time employment is often seen as an important step in an academic career (Ates and Brechelmacher, 2013). However, beyond the perspective of contractual instability, part-time work can also be seen in other perspectives. For example, as noted by Höhle and Teichler (2013a), part-time employment of practitioners – such as professionals from the fields students may enter upon completion of their studies – represents an opportunity for enriching the

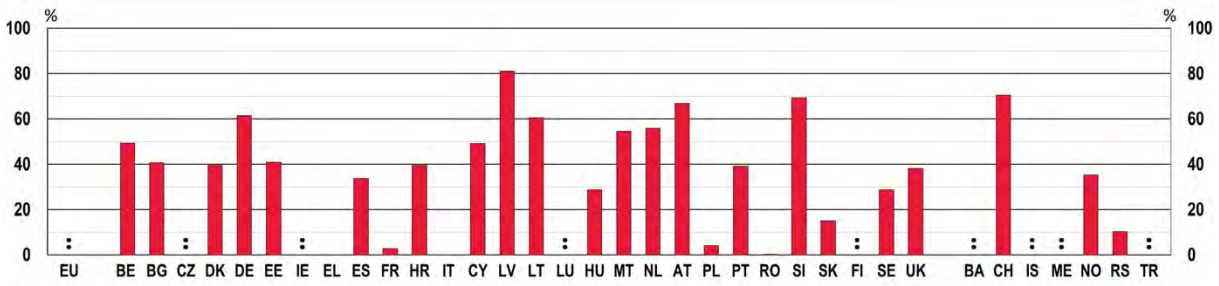
longest working week is reported by senior staff in Germany and Switzerland (both 52 hours on average) and Ireland (50 hours on average). In contrast, the shortest week is reported by senior staff in Portugal (41 hours) and Norway (39 hours). Other countries for which data is available are situated between 45 and 49 weekly hours (ibid.).

([14]) Based on data from the 'Changing Academic Profession' (CAP) survey. For more details on the CAP survey, see the Introduction to this report.

content of higher education curricula. Moreover, opportunities for part-time employment are often considered to contribute to gender equality (ibid.). Rather than entering into controversies on part-time work in academia, this section aims at presenting available statistical evidence relevant to this topic.

According to the UNESCO/OECD/Eurostat (UOE) data collection, the proportion of academics working part-time varies substantially across Europe (see Figure 4.5; see also the explanatory notes related to Figure 4.5). In some countries, part-time employment in academia is non-existent or very rare (Greece, France, Italy, Poland and Romania), or can be seen as an occasional phenomenon, concerning only up to 15 % of all academics (Slovakia and Serbia). In contrast, there are higher education systems where between around 60 % and 80 % of academics work part-time (Germany, Latvia, Lithuania, Austria, Slovenia and Switzerland). Other European countries for which data is available are situated between these two extremities.

Figure 4.5: Academic staff working part-time as % of all academic staff, 2015



EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
:	49.4	40.7	:	39.6	61.4	41.0	:	0.0	33.9	2.9	39.6	0.0	49.1	81.0	60.5	:	28.8
MT	**NL**	**AT**	**PL**	**PT**	**RO**	**SI**	**SK**	**FI**	**SE**	**UK**	**BA**	**CH**	**IS**	**ME**	**NO**	**RS**	**TR**
54.5	55.9	66.9	4.2	39.2	0.3	69.4	15.0	:	28.7	38.2	:	70.6	:	:	35.3	10.4	:

Source: UOE data collection. Online data code: *educ_uoe_perd05* (data extracted June 2017).

Explanatory notes

Data refers to academic staff at ISCED 2011 levels 5-8.

Within the UOE data collection (UNESCO-UIS/OECD/Eurostat, 2016, p. 42), the concept of academic staff includes:

- Personnel employed at the tertiary level of education whose primary assignment is instruction or research;
- Personnel who hold an academic rank with such titles as professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of these academic ranks;
- Personnel with other titles (e.g. dean, director, associate dean, assistant dean, chair or head of department), if their principal activity is instruction or research.

When referring to full-time and part-time employment of educational personnel – including academic staff –, the UOE data collection uses two concepts: 'contractual working hours' and 'normal or statutory working hours' (ibid., pp. 28-29). The contractual working hours of educational personnel are those specified in their contract of employment or implied by their type of employment. The normal or statutory working hours of educational personnel are those necessary to meet the requirements according to the official national policies or laws of full-time employment at a specific level of education – or in the job or role in which they are employed – over a full school or academic year. Within the UOE data collection, the contractual working hours and the normal or statutory working hours should be expressed as annual hours in order to allow a comparison between the two to determine the full- or part-time status of educational personnel. Full-time educational personnel are employed for at least 90 % of the normal or statutory working hours of educational personnel in the same job or role at the given level of education. Part-time educational personnel are employed for less than 90 % of the normal or statutory working hours of educational personnel in the same job or role at the given level of education.

Country-specific note

Greece: Reference year of data is 2014.

The EUROAC study ([15]), which also provides data on part-time employment in academia, points not only to substantial cross-country differences in this area, but also to some determinants of part-time work. In particular, it shows that part-time employment is closely linked to the career path of academics, with junior academics more likely to work part-time than senior staff (Ates and Brechelmacher, 2013; Höhle and Teichler, 2013a). Indeed, as discussed in this chapter previously (see Section 4.1.1.), junior positions often imply fixed-term part-time contracts, whereas seniority generally brings more stable contractual arrangements, i.e. indefinite full-time contracts.

4.3. Remuneration of academic staff

Remuneration is one of the key aspects of working conditions. Indeed, as noted by Rumbley, Pacheco and Altbach (2008; quoted in Kwiek and Antonowicz 2013, p. 49) 'successful universities and academic systems must offer their academic staff adequate and assured salaries, along with the option to pursue a full-time career path with appropriate guarantees of long-term employment. Without these conditions, no academic institution or system can be successful – let alone achieve world-class status'.

This section looks at the remuneration of academic staff from two different perspectives. First, it explores data supplied by top-level authorities (the Eurydice data collection) on regulatory frameworks that govern this area. Second, it presents data on actual salaries of academics produced within the EUROAC study ([16]).

4.3.1. Regulatory frameworks

In most European higher education systems, there are top-level regulations defining salaries and/or salary scales of academics (see Figure 4.6). This is the case in almost all systems where at least some academics are civil servants (see also Figure 4.3). Indeed, regulations on the civil service commonly stipulate salaries and salary scales applicable to different academic staff categories. In systems falling under this category, salaries of academics outside the civil service are regulated to various degrees and, in some cases, are not regulated at all. For example, in Austria, within the university sector, the remuneration of academics who are civil servants is defined within the civil service code ([17]), whereas salaries of other academics at universities follow a collective agreement. At universities of applied sciences, salaries are not regulated by any law or collective agreement. A similar situation can be observed in Belgium (German-speaking and Flemish Communities) and Luxembourg ([18]), where salaries of academics who are civil servants are fully regulated, whereas the remuneration of other academics is set by higher education institutions.

Among countries with no civil servant status in academia, there are some, where salaries of at least some academics are subject to top-level regulations (Ireland, Cyprus, Latvia, Poland, Romania, Slovakia, Bosnia and Herzegovina, Montenegro and Serbia). For example, in Slovakia, academics in public higher education institutions are categorised as 'employees in public interest' – which is a status different from the civil servant status – and their salaries are defined within a legal framework dedicated to this category.

([15]) For more details on the EUROAC study, see the Introduction to this report.

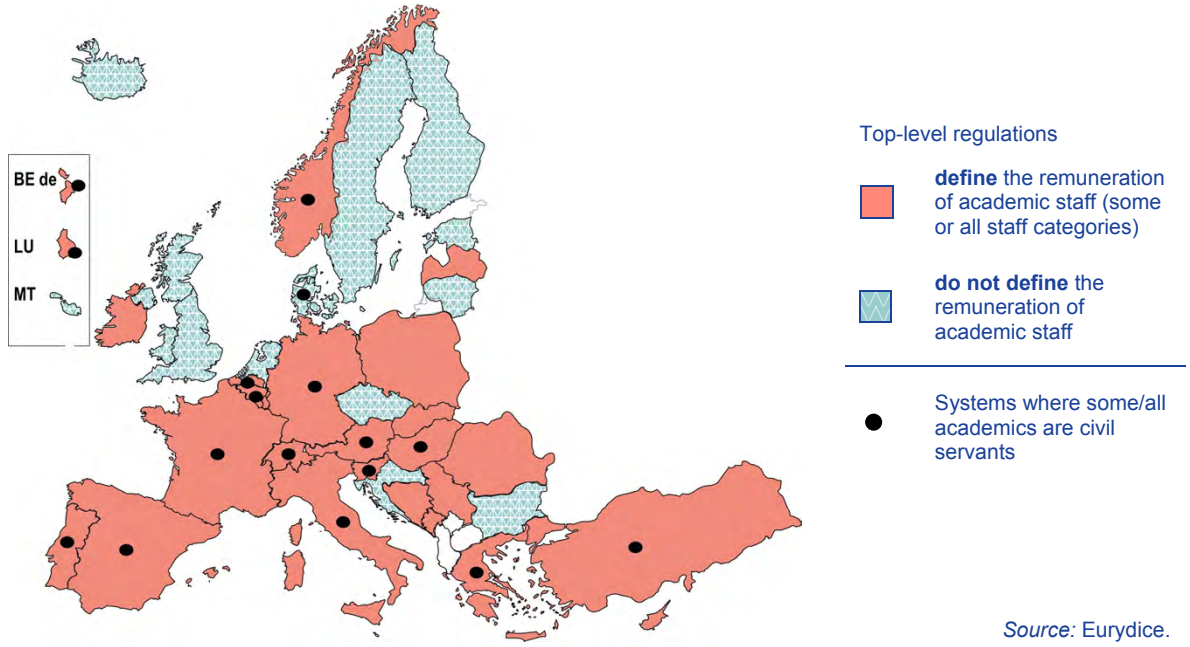
([16]) For more details on the EUROAC study, see the Introduction to this report.

([17]) Civil servant status at universities in Austria is being phased out. However, there are still academics who are civil servants (for more details, see Section 4.1.2).

([18]) Civil servant status at the University of Luxembourg is being phased out. However, there are still academics who are civil servants (for more details, see Section 4.1.2).

In around one third of European higher education systems (Bulgaria, the Czech Republic, Denmark, Estonia, Lithuania, Malta, the Netherlands, Finland, Sweden, the United Kingdom and Iceland), salaries of academic staff are not defined in top-level regulations. While this generally implies a high degree of institutional autonomy in matters related to the remuneration of academics, collective agreements or comparable steering documents may still provide some framing for this area (e.g. Denmark, Malta, the Netherlands, Finland, the United Kingdom and Iceland). For example, in the Netherlands, each higher education sub-sector (i.e. universities and universities of applied sciences) has its own collective agreement, which is negotiated between trade unions and employers' organisations. A comparable situation can be observed in Malta and Finland, where the remuneration of academic staff is referred to in collective agreements specific to each higher education sub-sector. Another type of framing is in place in the United Kingdom, where a national framework agreement defines five main academic grades that act as a (non-mandatory) reference point for setting salaries and grading structures at higher education institutions. In contrast, there are also systems with no top-level guidelines or frameworks for the remuneration of academic staff. For example, in the Czech Republic, salaries of academics follow internal regulations set by individual higher education institutions. In Sweden, the salary negotiations can be totally individual between the employee and his or her superior, or they can be carried out between the employer and the local teachers' union, if there is a local collective agreement in operation.

Figure 4.6: Top-level regulations on the remuneration of academic staff, 2015/16



Source: Eurydice.

Explanatory notes

Top-level regulations refer to legislation or other regulations issued by central (top-level) authorities. Collective agreements are not covered.

General labor legislation defining the statutory minimum wage applicable to all employees is not covered.

Countries with several higher education sectors that differ in terms of regulations are represented by the university sector.

Country-specific notes

Austria: The figure refers to universities and university colleges of teacher education. There are no regulations on the remuneration of academics at universities of applied sciences.
Switzerland: Top-level regulations refer to cantonal regulations (not to federal regulations).

One question that can be raised in relation to academic staff salaries is whether they are (or may be) differentiated according to staff performance. Although not covered by a dedicated figure, this question was integrated in the Eurydice data collection.

As can be expected, performance-related pay is possible in all higher education systems with no top-level regulations on the remuneration of academics. However, in most countries falling under this category, the performance-related pay is still subject to some framing and/or limitations. For example, in Finland, according to collective agreements covering each higher education sub-sector (i.e. universities and universities of applied sciences), only one part of the salary is performance-based, and this part generally does not exceed 25 % of the total pay.

What may be somewhat surprising is the fact that performance-related pay is possible in most higher education systems where salaries of academics are subject to top-level regulations. Obviously, in these systems, regulatory frameworks often include rather strict and precise rules on the attribution of various premium payments and their amount. Still, the overall picture is that performance-related pay is possible – at least to some extent – in almost all European higher education systems.

It is also noteworthy that performance-related pay seems to be gaining ground in European academia. Indeed, several countries have recently adopted reforms extending the possibilities for differentiated remuneration of academics. For example, in Sweden, since 2016, salaries of academics are mainly set through the so called 'salary talk' between the employee and his or her superior, whereas within the previous system, academic staff salaries were commonly negotiated between employers (i.e. higher education administrations) and staff unions' local representatives. Norway also reports changes in this area, namely a reform enhancing institutional autonomy regarding salaries of professors. While until mid-2016, the remuneration of professors had to be set within a pay-range defined centrally, at present, only the minimum wage of professors is defined centrally and there is no pre-defined maximum salary. Recent reforms promoting performance-related pay are also reported from highly regulated systems, although their scope is generally more limited compared to the above countries. For example, in Turkey, since 2015, academics can receive a bonus with a defined maximum amount aimed at rewarding their publication activity. Italy adopted in 2010 a legal framework creating public-private funds at universities that are meant to reward academic merit.

4.3.2. Actual remuneration of academic staff

Top-level authorities do not always have data on actual salaries of academics ([19]). This is related to the fact that salaries of academics are not always defined by top-level authorities and, in addition, they can be differentiated by staff performance (see Section 4.3.1). Therefore, it is interesting to examine the remuneration of academic staff from another perspective: through surveys including self-reported pay. Despite the fact that no survey provides relevant data for all European countries, the EUROAC study enables the situation to be discerned in some of them ([20]).

Prior to presenting available EUROAC data, it is necessary to highlight some methodological issues related to surveys on academic staff salaries. Indeed, as pointed out by Höhle and Teichler (2013a), comparing salaries on the basis of survey responses is far from an easy task. Ates and Brechelmacher (2013) in this context note that '[m]ost international comparisons of academics' income are misleading, because they do not take into consideration the context of the figures at hand' (ibid.,

([19]) This is shown is the OECD NESLI Survey on Tertiary Faculty Salaries that gathers information on average annual actual salaries of academic staff from top-level authorities. Within the 2012/13 data collection, around half of the surveyed countries were not able to provide such information. See: http://www.oecd.org/edu/educationataglance2015indicators.htm (Indicator D3 'How much are teachers paid?'; Data for Box D3.1. (2)) [Accessed 31 May 2017].

([20]) For more details on the EUROAC study, see the Introduction to this report.

p. 26). Several challenges are highlighted in this respect. First, the share of non-respondents to salary questions tends be higher than for most other questions (Höhle and Teichler, 2013a). Second, collecting information on monthly remuneration in a comparative perspective may be seen as problematic, because of cross-country differences in the number of monthly salaries paid per year and due to the fact that some supplements may not be paid on a monthly basis (ibid.). Another aspect to be considered is that in some countries, salaries may already include certain benefits, while in other cases, these may be paid in addition to salaries (ibid.). Finally, the actual value of academics' gross salaries can differ between countries, depending on tax rates, purchasing power, etc. (ibid.). Taking into account the above challenges, the EUROAC study asked academics about their annual gross income, and considered only salaries of those who are employed full-time (Ates and Brechelmacher, 2013). The annual salaries reported were adjusted to countries' price levels.

Following the above methodology, the EUROAC data, which is available for ten European countries ([21]), indicate substantial differences in the median annual gross income of academics ([22]). When looking at senior staff at universities, data show that university professors in Switzerland benefit from the highest median annual full-time salaries (around 90 000 euros), followed by, respectively, university professors in Germany, Portugal, the Netherlands and Austria (between around 66 000 and 67 000 euros) (Ates and Brechelmacher, 2013, p. 29). In a further four countries for which data is available – namely Italy, Finland, the United Kingdom and Norway – the median annual gross income of university professors ranges from close to 40 000 to just over 55 000. The lowest median annual gross salary of university professors is recorded in Poland (around 30 000 euros) (ibid.).

The EUROAC data also show that senior academics at other higher education institutions earn on average somewhat less compared to their colleagues at universities ([23]). Again, the highest median salary is paid in Switzerland (just over 80 000 euros), followed by Germany (close to 60 000 euros), Portugal (around 57 000 euros), Finland (around 48 000 euros) and Norway (around 37 000 euros). The lowest annual median salary of professors at other higher education institutions is recorded in Poland (around 17 000 euros); the country which also registers the most substantial difference between salaries of senior academics at universities and at other higher education institutions.

As can be expected, salaries of academics increase substantially with their career advancement. Indeed, professors in all systems report considerably higher income than junior staff (on average, professors earn approximately twice as much as their junior colleagues) (ibid.). Looking at salaries of junior staff at universities, the highest median annual full-time salary is recorded in the Netherlands (around 44 000 euros), followed by the United Kingdom (around 43 000 euros), Switzerland and Germany (both around 40 000 euros). In Italy, Austria, Portugal, Finland and Norway, the median annual salary of junior academics at universities is situated between 25 000 and 35 000 euros. The lowest median salary of junior academics at universities is recorded in Poland (around 17 000 euros).

Finally, the EUROAC data indicates that academics often have an income that is additional to their main salary (ibid.). This may go from small honoraria for presentations and publications, to the remuneration for a second professorial position. On average, across countries for which data is available, the amount of additional income of university professors corresponds to 10 % of their gross annual salary.

([21]) While Croatia and Ireland also participated in the EUROAC study their data on salaries is not included in Ates and Brechelmacher (2013).

([22]) Although the EUROAC study was conducted almost a decade ago (see the Introduction to this report), its results are used here to complement the regulatory perspective.

([23]) Data allowing the comparison of salaries between universities and other higher education institutions is only available for Germany, Poland, Portugal, Finland, Norway and Switzerland (see Ates and Brechelmacher, 2013).

4.4. Continuing professional development (CPD) of academic staff

When analysing working conditions in a broad perspective, training opportunities and, more generally, opportunities for continuing professional development (CPD) had to be taken into consideration. Indeed, a question may be raised whether and to what extent academia offers attractive CPD opportunities to its teaching and research staff. This section examines this question in two parts. First, it looks at organisational patterns of CPD in academia and the provision of training in some specific areas. Second, it explores one particular strand of CPD, namely frameworks that regulate the possibilities for academic staff to take paid or unpaid leave for research, professional development or other purposes. The analysis is mainly based on information provided by top-level authorities within the Eurydice data collection. Besides Eurydice data, the section presents some relevant data from the EUROAC study ([24]).

4.4.1. Organising principles of CPD in academia and availability of training provision

Top-level authorities generally play only a limited role in CPD of academic staff. From the operational perspective, their intervention is often limited to the provision of subsidies allowing higher education institutions to ensure adequate training opportunities for their staff. However, public subsidies for CPD are commonly provided as a part of general institutional budgets, meaning that higher education institutions can decide autonomously on the amount of funding they will allocate to this area. Top-level authorities may also intervene in CPD of academics through regulations defining, for instance, CPD as a right and/or a duty for academic staff (or employees), or as an obligation for higher education institutions (or employers). Still, beyond these general statements, regulatory frameworks provide almost no guidelines on CPD in academia, except specifications on paid or unpaid leave that are discussed in Section 4.4.2.

A high degree of institutional autonomy in the area of CPD goes hand in hand with a relative absence of large-scale training programmes targeting academics. Indeed, when considering CPD in areas such as teaching, information and communication technology (ICT) or foreign languages, most countries report having no programmes that would go beyond isolated activities of individual higher education institutions. In other words, higher education institutions commonly offer CPD in the above areas, but large-scale programmes/actions are scarce ([25]).

Among few examples of large-scale CPD programmes/actions targeting academics, there are system-wide frameworks that have been put in place in the United Kingdom and Ireland. More specifically, across the United Kingdom, the Higher Education Academy (HEA), the national body focusing on improving teaching quality in higher education, has established a set of professional standards in teaching and learning aligned with the Quality Code, which is the overall reference framework for higher education quality assurance ([26]). These standards aim to support higher education institutions in the development of their own training provision, including CPD provision ([27]). Moreover, taking into account the above standards, the Staff and Educational Development Association (SEDA), which focuses on promoting innovation and good practice in higher education, has put in place an accreditation scheme for professional development programmes and a system of qualifications

([24]) For more details on the EUROAC study, see the Introduction to this report.

([25]) Within the Eurydice data collection, large-scale programmes/actions were defined as programmes/actions that operate throughout the whole country or a significant geographical area (as opposed to initiatives limited to a particular institution or geographical location) and are intended as a long-term element of the system with resources planned to cover several consecutive years (as opposed to initiatives with short-term project-based funding covering only one or two years) (see the Glossary).

([26]) See: http://www.qaa.ac.uk/assuring-standards-and-quality/the-quality-code [Accessed 19 April 2017].

([27]) See: https://www.heacademy.ac.uk/ukpsf [Accessed 27 September 2016].

(awards) validating these programmes ([28]). In Ireland, the National Forum for the Enhancement of Teaching and Learning in Higher Education has developed a national professional development framework that provides guidance for planning, developing and engaging in professional development activities ([29]). In addition to the framework, there are several nationally funded collaborative projects targeting various skills of academics, including digital literacy and foreign language skills.

Further system-wide CPD actions targeting academic staff include programmes that have been put in place with the support of European funding. For example, in Bulgaria, the operational programme 'Human Resources Development' (2008-2014) provided academic staff with the opportunity to follow a range of CPD activities, including courses and seminars in teaching competencies, ICT and languages. While this governmental initiative ceased at the end of the programming period, the Ministry of Education and Science has recently started a new project to support CPD needs of academics. The project will run under the Erasmus+ Programme and will be implemented by the end of 2018.

The EUROAC study offers another approach to examining continuing training opportunities in academia, looking, in particular, at CPD targeting teaching competencies. Within the survey, academics were asked to report on institutional support for teaching, including the availability of adequate training courses for the enhancement of teaching quality. The survey shows that training for the enhancement of teaching quality is available to more than half of all academics at universities in Ireland, the United Kingdom and the Netherlands (Höhle and Teichler 2013b, pp. 94-95). In contrast, less than 10 % of academics at universities in Italy and Poland reported the availability of such training. Other countries for which data is available – Germany, Croatia, Austria, Portugal, Finland, Norway and Switzerland – are situated between these two extremities (ibid.). The EUROAC data also indicate that in some countries, junior academics report the availability of adequate training in teaching less frequently than senior staff. The junior/senior divide is particularly prominent at universities in Finland (where 37 % of junior academics reported adequate training courses for enhancing teaching quality compared to 53 % of their senior colleagues) and at other higher education institutions in Germany (11 % against 38 %) (ibid.). As noted by Höhle and Teichler (ibid., p. 94), '[o]ne could have expected the opposite because training programmes of that kind often put an emphasis on junior academics'. Alongside the junior/senior divide, data also show that academics at universities tend to be more satisfied with the availability of training courses in teaching compared to staff at other higher education institutions (ibid.). This is noteworthy in the context of previously presented evidence; in particular data indicating that teaching workload of staff at other higher education institutions tend to be higher compared to teaching workload of staff at universities (see Section 4.2).

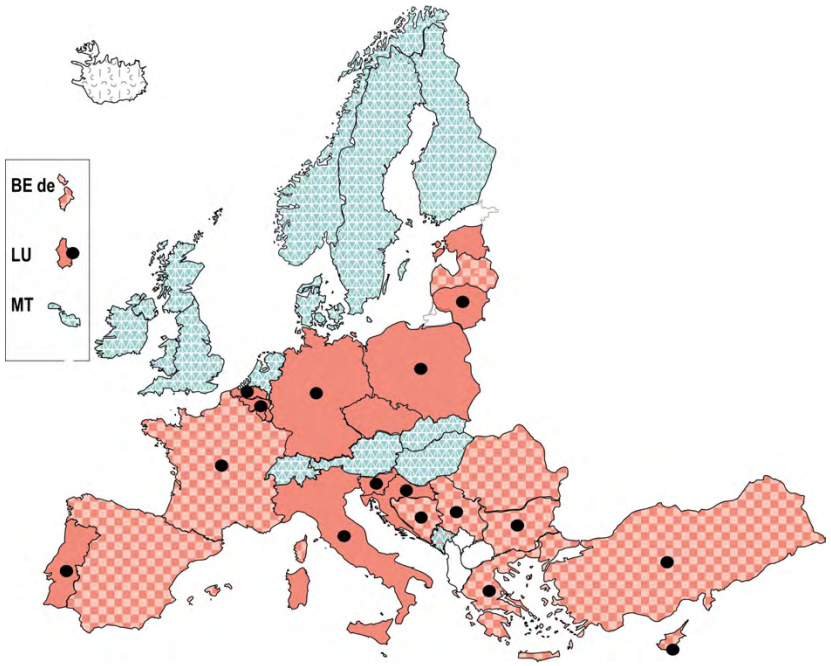
4.4.2. Opportunities for sabbatical leave

As shown in the previous section, continuing professional development (CPD) of academics is a loosely regulated area. However, one aspect of CPD – sabbatical leave – is an exception to this general pattern. Indeed, as Figure 4.7 shows, in most European countries, there are top-level regulations defining policy for sabbatical leave in academia. Most commonly, regulations refer to paid leave, but in some systems, unpaid leave is also covered.

([28]) See: http://www.seda.ac.uk/pdf [Accessed 27 September 2016].

([29]) See: http://www.teachingandlearning.ie/wp-content/uploads/2016/09/PD-Framework-FINAL.pdf [Accessed 6 October 2016].

Figure 4.7: Top-level regulations on sabbatical leave for academic staff, 2015/16



Source: Eurydice.

Duration and/or frequency of sabbatical leave (as defined in top-level regulations)

BE fr	**Paid**: up to 1 year during a career
BE de	**Paid** or **unpaid** (special mission): up to 1 year (renewable); **Unpaid**: up to 5 years during a career
BE nl	**Paid**: up to 2 years during a career
BG	**Paid** or **unpaid**: 1 year every 7 years
CZ	**Paid**: 6 months every 7 years
DE	**Paid**: 1 semester every 5-10 semesters
EE	**Paid**: 1 semester every 5 years
EL	**Paid**: 1 year every 6 years or 6 months every 3 years; **Unpaid**: up to 3 years.
ES	**Paid**: <3 months (full salary); >3 months – 1 year (80 % of salary) every 5 years; **Unpaid**: more than 1 year
FR	**Paid**: 1 year every 6 years or 6 months every 3 years; **Unpaid**: up to 6 years during a career
HR	**Paid**: 1 year every 6 years
IT	**Paid**: 1 year (in total) requested maximum twice in 10 years in two different academic years
CY	**Paid**: 1 year every 6 years or 1 semester every 3 years; **Unpaid**: up to 1 year
LV	**Paid**: 6 months every 6 years; **Unpaid**: up to 2 years
LT	**Paid**: 1 year every 5 years
LU	**Paid**: 6 months every 7 years (fully paid) or 12 months every 7 years (50 % of salary)
PL	**Paid**: 1 year every 7 years
PT	**Paid**: 1 year every 6 years or 6 months every 3 years
RO	**Paid**: 1 year every 6 years; **Unpaid**: two types: 3 years every 7 years or 1 year every 10 years
SI	**Paid**: 1 year every 6 years
BA	**Paid**: up to 2 semesters (no frequency defined); **Unpaid**: up to 3 years during a career
TR	**Paid**: up to 1 year; Unpaid: up to 1 year
RS	**Paid**: 1 year every 5 years; **Unpaid**: different duration for different purposes

Source: Eurydice.

Explanatory notes (Figure 4.7)

'Sabbatical leave' refers to a leave that provides the opportunity for academic staff to dedicate a certain period of time to specific activities (rather than to all their usual duties). Commonly, sabbaticals focus on research, but may also concentrate on other activities, such as professional development or teaching at another institution.

Top-level regulations refer to legislation or other regulations issued by central (top-level) authorities. Collective agreements are not covered.

Only top-level regulations referring to higher education are considered. General labour legislation on paid or unpaid leave applicable to employees in different sectors is not covered.

Sabbatical leave for academic staff explicitly dedicated to drafting PhD thesis is not covered.

Countries with several higher education sectors that differ in terms of regulations are represented by the university sector.

Country-specific notes

Malta: There is only one public university. The sabbatical leave is defined in institutional regulations. The leave is available to resident academic staff from the grade of lecturer and after completing six years of continuous service.
Austria and **Slovenia**: The information presented refers to universities. It does not apply to other higher education institutions.
Montenegro: There is only one public university. The sabbatical leave is defined in institutional regulations. The longest period of leave is one year.

When considering the duration and the frequency of paid sabbatical leave, existing regulations can be grouped into two main clusters. In the first cluster, covering most regulatory frameworks, academics are eligible to take up to one year every five to seven years (see the table related to Figure 4.7). In most other systems, the frequency is comparable, but the maximum duration is only around half a year (either six months or one semester, depending on how regulations are formulated). Beyond these main dimensions, regulations on paid leave include a range of system-specific details. For example, in Luxembourg, staff can take every seven years either fully paid six months or one year paid at 50 %. In France, Cyprus and Portugal, academics are eligible to either one year every six years or a half a year every three years. In Spain, where paid sabbatical leave can be taken every five years, academics can benefit from their full salary during the first three months and from 80 % of their salary during additional nine months (a sabbatical leave exceeding one year is possible, but is unpaid).

In several higher education systems with regulations on paid sabbatical leave, the main purpose of such leave can be both research and professional development other than research (e.g. the Czech Republic, Greece, Spain, Croatia, Lithuania, Austria, Romania, Slovenia and Serbia). In some other systems, regulations are more restrictive, limiting paid sabbatical leave either to research (e.g. Germany, Latvia, Luxembourg, Poland and Turkey) or to professional development other than research (e.g. Estonia and Portugal). In contrast, there are systems allowing academics to take paid sabbatical leave not only for research or professional development other than research, but also for other activities (e.g. France, Italy and Cyprus).

As Figure 4.7 shows, unpaid sabbatical leave covering the academic profession is regulated less frequently than paid leave. Moreover, regulations related to unpaid leave are often less prescriptive and such leave is more frequently open to activities other than research or professional development in a strict sense. Often, this option allows academics to spend a certain period of time at another higher education institution (at home or abroad), while keeping their position at their home institution. In Latvia, for instance, regulations refer explicitly to this option, providing a legal frame for academics (professors, associate professors and assistant professors) to spend up to two years as visiting lecturers elsewhere.

Another important aspect of regulatory frameworks on sabbatical leave in academia is that the leave is often restricted only to some academic staff categories (see Figure 4.7). More specifically, in several higher education systems, the entitlement applies only to senior and/or middle-rank staff, whereas junior academics are not concerned. For example, in Germany, the paid research leave is intended only for professors. In Bulgaria, the possibility to take paid or unpaid sabbatical leave is restricted to professors and associated professors, i.e. the two highest positions in the academic career ladder. In

Luxembourg, the Law on the University of Luxembourg defines paid research leave only in reference to professors and the top management, i.e. the rector, vice-rectors, deans and directors of interdisciplinary research centres. Serbia reports that paid sabbatical leave can only be taken by academics who have at least five-year teaching experience and are in the category *docent* (i.e. a medium-rank category) or above. Several other countries (Belgium – the French and the Flemish Communities, Greece, France, Croatia, Italy, Cyprus, Lithuania, Poland, Portugal, Slovenia, Bosnia and Herzegovina, and Turkey) also report that sabbatical leave is limited to some staff categories, most commonly the key categories in the academic career ladder. In contrast, there are countries reporting that all academics are entitled to take a sabbatical leave (e.g. the Czech Republic, Estonia, Latvia and Romania). However, the concept of 'all academic staff' must be interpreted with caution, as it may still exclude some academics. In particular, sabbatical leave is generally available only for 'regular' or 'ordinary' staff, so that staff working, for instance, on hourly contracts are excluded from the scope of regulations. Spain shows a rather specific profile, reporting that top-level regulations stipulate only the duration and the frequency of sabbatical leave, whereas it is up to higher education institutions to define the eligible staff categories.

Finally, when top-level regulations on higher education do not refer to the possibility to take a sabbatical leave, it does not mean that no such possibility exists within academia. Indeed, general labour legislation may stipulate the right to paid or unpaid leave for employees working in different sectors, including higher education (this aspect is excluded from the scope of Figure 4.7). Moreover, in countries with no top-level regulations on paid or unpaid leave, the area may still be covered by internal regulations of individual higher education institutions (e.g. see the country-specific notes related to Figure 4.7). Yet, the content of institutional regulations is beyond the scope of the present analysis.

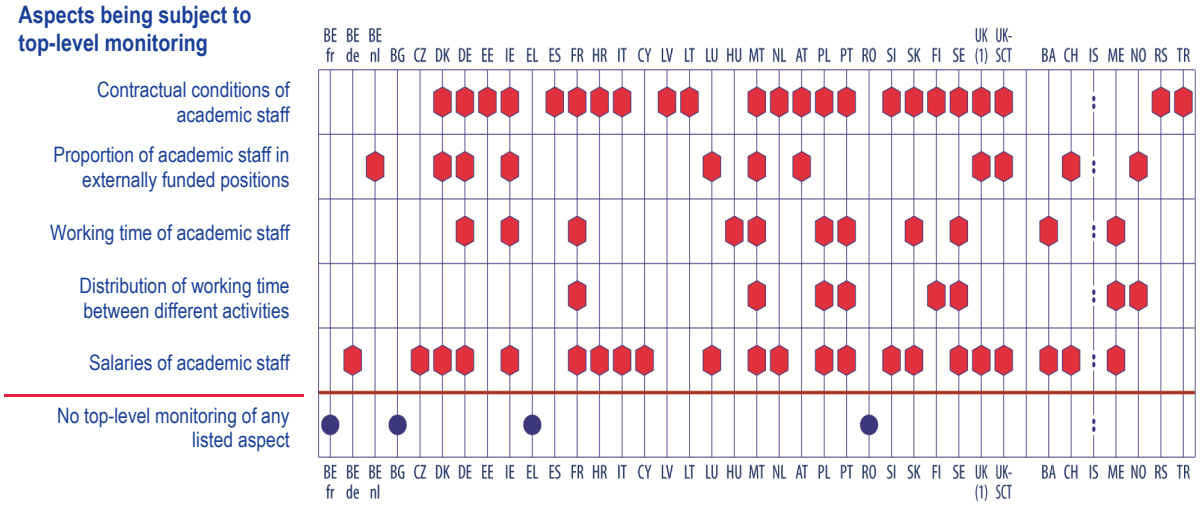
4.5. Monitoring of employment and working conditions in academia

One question not yet addressed in this chapter is the extent to which top-level authorities monitor employment and working conditions of academics. Within the Eurydice data collection, countries were asked to indicate which aspects of employment and working conditions are subject to monitoring by central (top-level) authorities or their mandated bodies. The proposed list included items relating to employment arrangements (contractual conditions, externally funded positions), working time and duties, as well as salaries.

Figure 4.8 shows that in around a half of all European countries, one or two proposed aspects are subject to top-level monitoring. Most commonly, top-level authorities collect data on contractual arrangements of academics and/or their salaries. In around one third of countries, the list of aspects that are subject to top-level monitoring is more extensive (i.e. three or more listed aspects). This applies to systems with various profiles, including systems characterised by a high degree of regulation in the area of staffing (e.g. France and Portugal), as well as systems where institutions benefit from a substantial degree of autonomy where staffing is concerned (e.g. the United Kingdom and Sweden) ([30]). In contrast, a few higher education systems report no top-level monitoring of any listed aspect.

([30]) For more details, see the University Autonomy Tool produced by the European University Association (EUA): http://www.university-autonomy.eu/ [Accessed 30 May 2017].

Figure 4.8: Top-level monitoring of employment and working conditions of academic staff, 2015/16



Source: Eurydice.

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

Explanatory notes

'Contractual conditions' refer to the type of contract under which academics work. 'Externally funded positions' refer to positions that are based on third-party (or project) funding rather than regular institutional or state funding. These positions are generally related to fixed-length contracts. Working in an externally funded position can be seen as an alternative to a regular higher education position (for more details, see the Glossary).

Countries with several higher education sectors that differ in terms of monitoring of employment and working conditions of academics are represented by the university sector.

Country-specific notes

Belgium (BE fr) and **Austria**: The figure refers to top-level monitoring at universities. It does not cover other higher education institutions.

The figure also indicates that in around one-third of European higher education systems, top-level authorities monitor the proportion of academics in externally funded positions. While conceptual differences make it impossible to compare the situation between systems, data point to some noteworthy trends within systems. Indeed, among countries/systems providing data on trends over the last years (the Flemish Community of Belgium, Luxembourg, Austria, the United Kingdom, Switzerland and Norway), most report an increased proportion of staff in externally funded positions. For example, in the Flemish Community of Belgium, the proportion of staff at universities in externally funded full-time equivalent positions increased from 56 % in 2005 to 68 % in 2015. In Switzerland, it increased from around 30 % in 2004 to around 40 % in 2014. In Austria, since 2010, the number of third-party funded (project) staff at universities increased by 16 % in headcounts and by 6 % in full-time equivalents. In Luxembourg, around 37 % of academics were in externally funded position in 2011 and around 45 % in 2013. In the United Kingdom, the underlying trend appears to be an increase in the proportion of academic staff whose posts are funded at least in part from external sources.

Finally, some countries report monitoring additional aspects related to employment and working conditions in academia, including mode of employment (i.e. full-time or part-time), employment at multiple sites, etc. These additional aspects are not captured by Figure 4.8 and are beyond the scope of this analysis.

Conclusions

Drawing upon evidence supplied by top-level authorities and data from other sources, this chapter has explored some key elements of employment and working conditions in academia, namely contractual arrangements, working time and duties, remuneration, and the opportunities for continuing professional development (CPD). While these areas do not provide an exhaustive account of employment and working conditions of the academic profession, they illustrate some key issues in a cross-country comparative perspective.

The analysis of employment conditions indicates that in almost all European countries, the higher education sector offers both fixed-term and indefinite job opportunities. The contractual stability is largely determined by the career stage, senior academics being the principal beneficiaries of indefinite contracts. However, behind this general pattern, there are cross-country differences. These are noticeable when comparing contractual arrangements of specific staff categories, in particular contracts of university professors. Indeed, while in around two-thirds of European countries, all or virtually all university professors benefit from an indefinite contract, in around one third of countries, it is common (or more common) for university professors to work under fixed-term contracts. Moreover, in countries with several types of higher education institutions (e.g. universities and universities of applied sciences), the proportion of indefinite and fixed-term contracts may vary substantially from one type of institution to another.

Higher education systems also differ in the employment status of academic staff, some considering academics as civil servants – i.e. staff employed by the public authority in accordance with legislation regulating the functioning of public administrations –, whereas others see them as employees. To further complicate the picture, systems in which academics are or may be civil servants, differ substantially in the proportion of staff benefiting from the civil servant status.

Research on the evolution of employment conditions in academia commonly points to decreasing job security of academics. This is confirmed by information supplied by top-level authorities, pointing to budgetary constraints, reduced employment opportunities in academia, and an increasing proportion of staff in externally funded positions. This pattern is partly counterbalanced by regulatory changes in some higher education systems aiming to facilitate the access of academics to indefinite contracts.

Working conditions in academia – including working time and duties of academics – are regulated only to a limited extent. In around one-third of all European countries, legislation stipulates the minimum time academics should allocate to specific activities, including teaching and/or teaching-related activities. The content of regulations suggests that teaching workload is commonly defined according to academic staff categories, with a tendency to impose less teaching to senior academics, compared to junior and middle-rank staff, and/or staff outside the main academic career path. Data also suggest that in systems with several higher education sectors, academics working outside the university sector are expected to deliver a higher number of teaching hours compared to their counterparts at universities.

Another aspect related to employment and working conditions in academia – the remuneration of academics – is regulated to varying degrees; and this is not only across countries, but also within countries. Generally, the salaries of academics who are civil servants are quite strictly framed, whereas salaries of those outside the civil service may or may not be subject to top-level regulations. In the latter case, salaries may still be framed by collective agreements or comparable steering documents. What applies to basic salaries, also applies to performance-related pay. Indeed, while performance-related pay is now possible in virtually all European higher education systems, it is framed to varying degrees. However, regardless of the degree of framing, performance-related pay

seems to be gaining ground across European academia, several countries reporting recent reforms that have extended possibilities for differentiated remuneration of academics.

A further aspect that has been examined in the chapter – continuing professional development (CPD) of academics – is characterised by a limited involvement of top-level authorities. From the operational perspective, top-level authorities provide subsidies for this area, yet, often as a part of general institutional budgets, meaning that higher education institutions can decide autonomously on the amount of funding they will allocate to CPD of their staff. A high degree of institutional autonomy goes hand in hand with a relative absence of large-scale CPD programmes for academics. Indeed, when considering CPD in areas such as teaching, information and communication technology (ICT) or foreign languages, most countries report having no programmes that would go beyond isolated activities of individual higher education institutions.

While CPD of academic staff is a loosely regulated area, one of its aspects – sabbatical leave – is an exception to this general pattern. Indeed, in most European countries, there are top-level regulations defining policy for sabbatical leave in academia. Most commonly, regulations refer to paid leave, but in some systems, unpaid leave is also covered. When considering the duration and the frequency of paid sabbatical leave, existing regulations generally refer to periods of leave of between six months and one year, that can be taken every five-seven years. While this can be seen as a rather attractive aspect of the academic profession, the opportunity to take paid sabbatical leave is usually open only to some staff categories, in particular medium-rank and senior academics.

Finally, after having explored selected aspects of employment and working conditions in academia, the chapter has enquired about the extent to which top-level authorities monitor this area. The analysis has shown that the extent of monitoring varies from one country to another, some top-level authorities monitoring a wider range of aspects compared to others. Data presented in the chapter also point to the lack of comparable European statistics on employment and working conditions of academics, including the lack of comparable data on contracts under which academics work and on the proportion of staff working in externally funded positions. Establishing comparable data sets in these areas would require an investment in the development of commonly shared concepts and definitions.

CHAPTER 5: QUALITY ASSURANCE AND EVALUATION OF ACADEMIC STAFF

This chapter aims to examine how quality assurance systems, which have been fast evolving in the past two decades, impact on issues related to academic staff. The first section outlines the main developments in quality assurance systems in Europe over the past two decades. The following section then investigates which issues are addressed in external quality assurance evaluations, whether common agreed criteria exist and who is responsible for determining such criteria. A third section focuses on individual staff evaluation. It shows which stakeholders intervene in defining evaluation criteria and establishing performance levels for different categories of staff, and who takes final decisions. The analysis also explores whether steering documents guide institutions on how academic staff performance should be linked to career advancement and how to reward outstanding performance and deal with unsatisfactory performance. While this chapter is mainly built on the data provided by the Eurydice Network, the second section is complemented by information gathered from a survey of national quality assurance agencies, members of the European Association for Quality Assurance in Higher Education (ENQA) ([1]).

5.1. The European context for quality assurance

There is no doubting the rapid development of quality assurance systems in the past two decades (European Commission, 2015), but there remains considerable discussion about the notion of 'quality' in higher education. Quality does not exist in any absolute sense, but must be related to other aspects of higher education in order to acquire meaning and sense. For example, the focus of the concept may be on quality of teaching, or quality of research. These notions also need to be broken down before any process of quality assurance can take place.

What might be considered as constituting quality in teaching, for example, and how could this be assessed? While different answers can be given according to the context in which the teaching is taking place, or to whom the question is asked, often a core aspect of the answer is that teaching has facilitated effective learning. Evidence for effective learning would then need to be sought, and this is a first quest for quality assurance systems. This process is also very context dependent, and related to defined teaching objectives, focusing for example on the acquisition of skills needed to find relevant employment, or developing competences and skills to serve throughout life.

Quality assurance of higher education has become a central pillar in the creation of the European Higher Education Area (EHEA). From its outset, the Bologna Process has acted as a catalyst to the development of quality assurance systems in Europe. A common agreement on the core elements for national quality assurance systems was reached at the Berlin Ministerial Conference in 2003 ([2]) and this was a starting point for re-thinking quality assurance systems in the EHEA, with the recognition that 'the primary responsibility for quality assurance lies with each institution itself and this provides the basis for rely accountability of the academic system…' ([3]). To promote mutual trust and increase transparency, the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) (ENQA, 2005) were adopted by the ministers at the Bergen meeting in 2005 ([4]).

([1]) For more details on the survey, see the Introduction to this report. Each time this survey is mentioned in the text, it will be referred to as the 'Quality assurance agencies survey' or the 'QAAs survey'.

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

([3]) Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003, p. 3.

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

Since then, they form a common European reference framework for internal and external quality assurance. A revised version of the ESG (ENQA, 2015) was adopted in 2015 by the Ministerial Conference in Yerevan.

The ESG include general guidelines and standards related to learning and teaching in higher education covering 'the areas which are vital for successful quality provision and learning environments in higher education' (ENQA, 2015, p. 4). In this context, quality of higher education is understood as the optimal interaction between teachers, students and the institutional learning environment. The European standards highlight the primary responsibility of higher education institutions for quality and its assurance, stress the independence of quality assurance agencies, promote accountability and enhancement as two main purposes of quality assurance of higher education and encourage integration of all stakeholders in the quality assurance process (ESG, 2015).

According to the 2015 Bologna implementation report (European Commission/EACEA/Eurydice, 2015), considerable progress in quality assurance has been made in recent years. All European countries have established national quality assurance systems and many higher education institutions have developed their own strategies for quality enhancement. While both external quality assurance agencies and higher education institutions tend to work in compliance with the ESG, it is noteworthy that there are still significant differences in the underlying approaches in national quality assurance systems. Indeed, quality assurance in Europe continues to be an area of dynamic evolution.

The Bologna implementation report (European Commission/EACEA/Eurydice, 2015) also reveals that in nearly all European higher education systems, higher education institutions are formally required to establish internal quality assurance systems, while in most of the systems, they can autonomously determine the focus of quality assurance. The report also reveals that in some countries, although higher education institutions are formally autonomous for quality assurance issues, they follow a tightly defined external quality assurance framework when deciding on their internal quality assurance processes.

Evaluation of quality of higher education can focus on different subjects ranging from governance, infrastructure and financing to curriculum design, programmes content, students learning and teacher competences. This chapter focuses only on the external quality assurance process, and how it impacts on academic staff.

5.2. External quality assurance

There is a wide consensus among policy makers, leaders of higher education institutions and researchers that the improvement of quality in higher education largely depends on the competences, proficiency and motivation of academic staff. Teaching performance is usually cited as one of the pillars of quality assurance processes in higher education. Other dimensions related to academic staff such as research activities, organisational structures and working conditions of staff, or student/staff ratio have been among the main standards for the evaluation and/or accreditation of programmes. The ESG (ENQA, 2015) extend this understanding of 'quality' stressing the importance of a supportive working environment. Alongside staff competence and proficiency, the ESG specific standard on teaching staff focuses on different aspects of the working environment, such as the recruitment process, employment conditions, professional development, career progression opportunities and the balance between teaching and research.

External evaluation of higher education in European countries is conducted by external quality assurance bodies. In most education systems, either one or several quality assurance agency/ies (QAAs) hold this responsibility; only in very few systems is the ministry or ministry body responsible for external quality assurance (European Commission/EACEA/Eurydice, 2015).

The Bologna implementation report (European Commission/EACEA/Eurydice, 2015) considers two main distinctions in how external quality assurance is organised. The first one is related to the primary aim and orientation of external quality assurance. External quality assurance bodies carry out accreditation of programmes and/or institutions in systems when they have the direct power to permit or refuse them to operate, or advise top-level authorities on such decisions. In such cases, the notion of quality is that certain pre-defined standards – threshold levels – are met. On the other hand, when quality assurance bodies have an enhancement-oriented advisory role, they evaluate programmes and/or institutions seeking areas where institutional practice could be more effective. The second main distinction is the focus of external quality assurance. In this respect, quality assurance bodies assess either the quality of programmes or look at institutions as a whole.

Based on the above distinctions, four widespread mechanisms of external quality assurance can be identified: programme evaluation for the purpose of quality enhancement; programme evaluation for the purpose of accreditation; institutional evaluation for the purpose of quality enhancement, and institutional evaluation for the purpose of accreditation. In some countries, institutional evaluation is considered to be an institutional audit, where the main purpose is to verify the implementation of internal quality assurance mechanisms.

An ENQA survey on quality procedures (ENQA, 2003) points out that most of the European quality assurance agencies use more than one mechanism to conduct external quality procedures and the methodologies applied vary considerably. Among the most common methods and instruments used for quality review are self-assessment, peer review, external review, document analysis, site visit, inspection and stakeholder survey. Consequences of external quality assurance also differ, ranging from funding and/or formal status approval to advice on quality enhancement.

This section considers which issues related to academic staff are addressed by external quality assurance bodies irrespective of the employed methods and mechanism(s). Starting from the ESG standard on teaching staff (ENQA, 2015, p. 11), six main topics related to academic staff, working environment and human resources management were determined (i.e. teaching, research, recruitment procedures, training opportunities, performance appraisal and promotion systems). Within the Eurydice data collection, countries were asked to indicate which of these issues are a focus of external quality assurance and whether commonly agreed criteria exist against which evaluations take place. This section also tries to specify how different aspects of quality are measured by looking at evaluation criteria applied by national QAAs. For this purpose, complementary information was collected in cooperation with the ENQA ([5]). Within the 'Quality assurance agencies survey', national QAAs, members of the ENQA, were required to report on the same main topics as the Eurydice Network. In addition, they were asked about particular aspects covered by each main topic and the evaluation criteria applied. Finally, this section also looks at the role of different stakeholders in specifying evaluation criteria for external quality assurance.

([5]) For more details on the survey, see the Introduction to this report. Each time this survey is mentioned in the text, it will be referred to as the 'Quality assurance agencies survey' or the 'QAAs survey'.

5.2.1. Academic staff related issues typically covered by external quality assurance

The data received from the Eurydice Network (see Figure 5.1) shows that, with the exception of Turkey, external quality assurance bodies in all countries, irrespective of which mechanism they actually use, address issues related to academic staff to some extent. External quality evaluation is usually built on a defined set of criteria. While some countries make reference to steering documents providing general guidelines or broadly defined criteria, others claim the existence of explicit criteria for internal and external quality assurance purposes.

As Figure 5.1 shows, almost all countries include teaching and research in external quality assurance procedures. This is an expected finding as teaching and research are at the heart of the higher education mission. However, it appears from the 'Quality assurance agencies survey' that different aspects of teaching and research are evaluated by external quality assurance bodies. Almost all QAAs focus on issues directly related to teaching such as teaching methods, innovation and good practices, distribution of teaching hours among different activities (seminars by topic, practice hours, evaluation, etc.) and tutoring (Bulgaria, Germany, Spain, France, Portugal, Romania, Finland and Norway). Some agencies consciously situate teaching in a global context, looking at the coherence of different aspects of teaching, learning and the learning environment (the French Community of Belgium and Romania). In addition to these main topics, some QAAs also examine issues indirectly related to the teaching process. In the Netherlands, Romania and Finland for instance, QAAs look at teaching qualifications and competencies. The French QAA assesses the workload of staff and the number of contact hours, while, in Finland, student well-being is considered as an indicator of good teaching. Some agencies provided examples of measurable criteria to assess teaching performance, such as the number of contact hours in France and the ratio of time dedicated to lectures, practical exercises and individual work in Lithuania and Romania.

The results of the 'QAAs survey' show that evaluation of research usually focuses on three main areas. Firstly, staff and students' involvement in research is assessed. In France, for instance, the QAA looks at the number of research oriented teaching staff and research opportunities for students (projects, research environment, etc.). In Bulgaria and Romania, in addition to staff and students' involvement in research, QAAs examine the availability of financial, human and logistical resources for research activities.

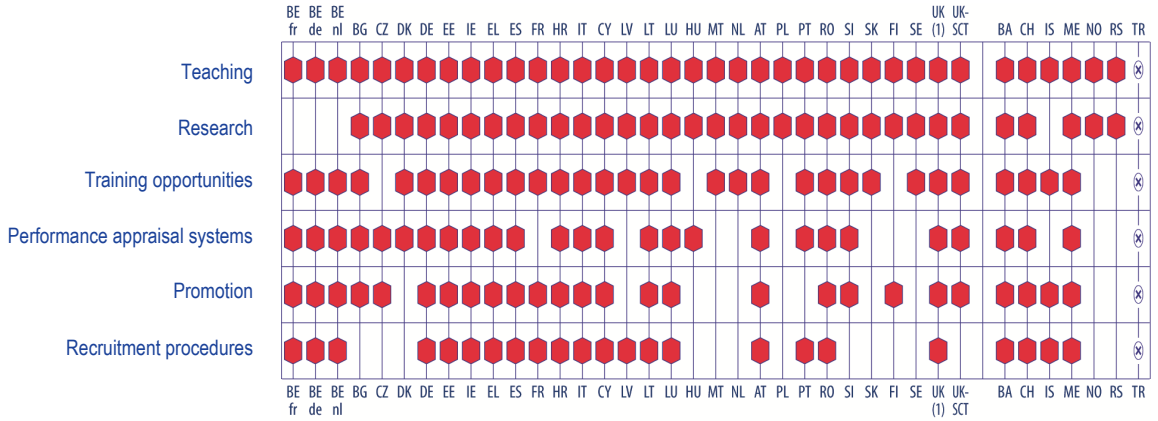
The second area is related to the research process, content and outcomes. The relevance of research and its alignment with the institutional mission, national/regional economic priorities, cultural and social development as well as the provisions of the European research area have been mentioned by the Lithuanian QAA. The Romanian QAA examines whether research planning and achievements are made in relation to the European and global framework, while the Bulgarian QAA looks at the use of international standards in research activities. The academic outputs are one of the quantitative criteria of research evaluation cited by QAAs. Whereas the Spanish QAA considers the total number of publications (articles, conference papers, doctoral theses, text books, scientific monographs, etc.), in Romania the number of research grants and publications are seen as evidence of the academic climate and culture strongly centred on research.

Finally, external quality assurance typically analyses institutional strategies, goals and planning in relation to research activities as well as international orientation. The Lithuanian QAA, for instance, attaches particular importance to participation in international research and researchers' mobility.

Figure 5.1 also indicates that in most education systems, external quality assurance looks at the existence of training opportunities for academic staff. The 'QAAs survey' reveals that evaluation of professional development of academic staff is usually limited to verification of availability of training

opportunities. Some QAAs, however, provided examples of more detailed approaches. In Norway, QAA's experts evaluate how needs for training are detected and what support is offered to staff as well as how continuing pedagogical development is maintained. The French QAA looks at training policies of higher education institutions and the support provided to academic staff for career progression.

Figure 5.1: Issues typically covered by the external quality assurance evaluation, 2015/16



Source: Eurydice.

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

Country-specific notes

Belgium: Research is only subject to external quality assurance if it is directly linked to an education programme.
Sweden: The monitoring of the issues marked above is done only in the accreditation procedure for new programmes.
Turkey: Issues related to academic staff are not included in external quality assurance procedures.

The topics related to human resource management (recruitment procedures, performance appraisal systems and promotion practices) are evaluated in slightly more than half of the systems. This finding reflects the large degree of autonomy of the European higher education institutions regarding staffing policies and procedures. Indeed, within the 'QAAs survey' many QAAs stated that they usually analyse institutional self-evaluation of these matters. The current QAAs' practice regarding evaluation of recruitment processes is to verify that higher education institutions employ adequately qualified staff according to legislative norms. With regard to performance appraisal of academic staff, QAAs usually look at the outcomes of such systems, as well as examine internal procedures, methods and criteria. Promotion practices are also usually evaluated by QAAs in the context of performance appraisal systems. In some countries, where promotion policies are strictly regulated, external quality assurance bodies may assess them separately.

Within the Eurydice data collection, some countries provided more detailed examples of the issues related to academic staff that are assessed by external quality assurance. A number of countries focus on issues related to the structure of staffing. In Croatia and Slovenia, for instance, the staff/student ratio is considered an important quality indicator, while in Slovakia the ratio of the number of qualified teachers to respective study fields is taken into account. In the German-speaking Community of Belgium, the Czech Republic, Latvia, Portugal and Slovenia, the composition of academic staff by study programme (i.e. the share between junior and senior staff categories) is one of the key issues addressed by external evaluations.

In some countries, different facets of working conditions also come under the scrutiny of external quality assurance. Employment conditions can be revealing about workforce stability, and in Croatia, Hungary and Portugal, quality assurance agencies examine the type of employment contracts given to academic staff (i.e. fixed-term/indefinite and full-time/part-time) and the proportion of staff with different types of contract. Many QAAs responding to the 'QAAs survey' also indicated that they look at the type

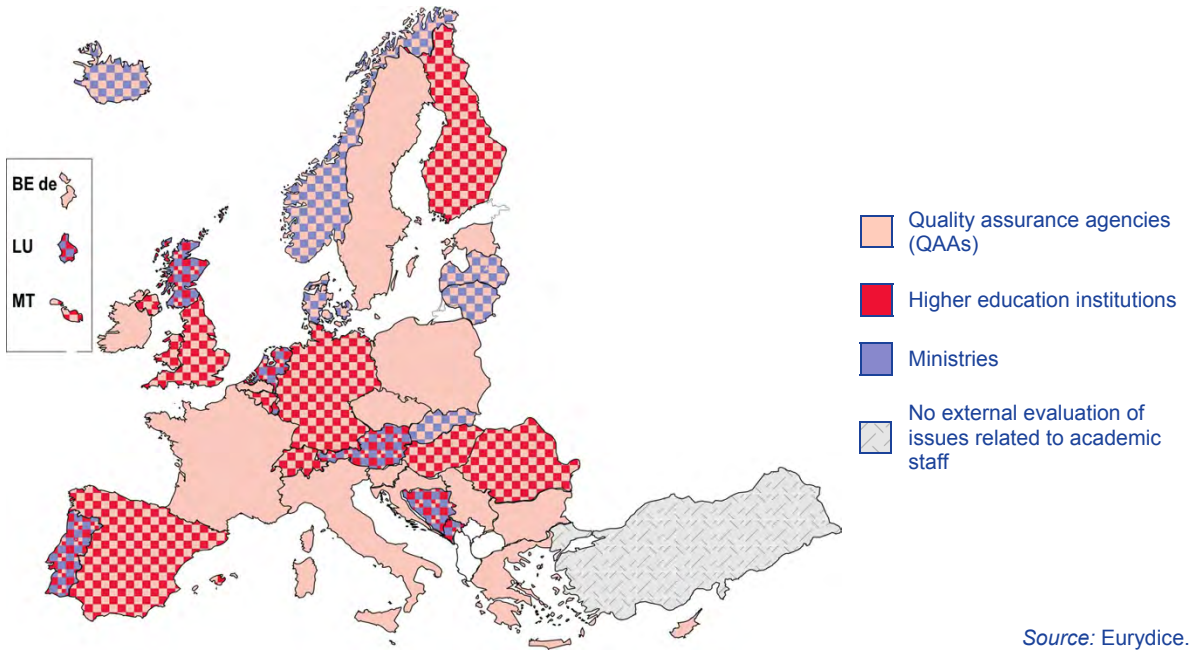
of employment contracts and when applicable check whether the ratio of permanent and temporary contracts corresponds to legal requirements.

Among other issues related to working conditions, the most frequently cited are workload and the well-being of academic staff, as well as staff remuneration. Finally, some countries provide examples of specific topics addressed by external quality assurance: gender equality is mentioned in Germany, staff mobility in Bulgaria and Latvia, and societal engagement in Malta. Almost all of the QAAs that responded to the 'QAAs survey' consider staff participation in institutional governance when conducting external evaluation. They usually focus on the involvement of staff in the development of study programmes, in quality assurance processes, or on formal staff representation in governance bodies – boards and committees – as well as participation in the decision-making process.

5.2.2. Main stakeholders involved in the elaboration of evaluation criteria for external quality assurance

Figure 5.2 shows that in most European countries, the elaboration of evaluation criteria for external quality assurance is a collaborative process between different stakeholders such as quality assurance agencies, government bodies and higher education institutions.

Figure 5.2: Stakeholders involved in the elaboration of evaluation criteria for external quality assurance, 2015/16



Source: Eurydice.

Country-specific notes

Norway: From 2017, alongside the Quality Assurance Agency, the Ministry of Education and Research is also involved in the elaboration of evaluation criteria.
Turkey: Issues related to academic staff are not included in external quality assurance procedures.

Although the missions of external QAAs can differ widely (see Section 5.2), they undoubtedly play a crucial role in framing the external quality assurance process in each country. Indeed, in almost all countries, the QAAs are involved in the elaboration of evaluation criteria, and in 16 they are solely responsible for setting evaluation criteria. Through comparing this information with the data provided by the Bologna implementation report 2015 (European Commission/EACEA/Eurydice, 2015), it appears that most QAAs with decision-making power also have exclusive responsibility for elaboration of evaluation criteria.

The top-level education authorities participate in the elaboration of evaluation criteria in 13 education systems. In 10 of them (Denmark, Latvia, Lithuania, the Netherlands, Austria, Slovakia, Bosnia and Herzegovina, Iceland, Montenegro and Norway), a responsible ministry or ministerial body formally approves a set of evaluation criteria.

Higher education institutions are recognised as the key actor of the quality assurance process – holding primary responsibility for the quality of their provision and for its assurance (ENQA, 2015). However, as Figure 5.2 shows, only about half of the systems (the French Community of Belgium, Germany, Spain, Luxembourg, Hungary, Malta, the Netherlands, Austria, Portugal, Romania, Finland, the United Kingdom (England, Wales, Northern Ireland and Scotland), Bosnia and Herzegovina, Switzerland and Montenegro) involve higher education institutions in the process of elaboration of evaluation criteria for external quality assurance. This relatively low participation of higher education institutions in designing the quality assurance framework is a matter that merits further investigation beyond the scope of this report.

Finally, some higher education systems (Germany, Ireland, Spain, Latvia, the United Kingdom – Scotland, and Switzerland) report that there are other relevant higher education bodies, such as the Accreditation Council in Germany or the Higher Education Council in Switzerland, involved in the elaboration of evaluation criteria.

5.3. Individual evaluation of academic staff

In European higher education systems, evaluation of academic staff is a compulsory element of institutional management and is usually an integral part of internal quality assurance.

From the institutional perspective, the main purpose of individual staff evaluation is to support and improve the performance of academic staff in their main areas of responsibility, such as teaching and research. Staff evaluation procedures usually consist of assessing staff performance against agreed criteria, identifying performance gaps and, if applicable, finding ways to improve staff performance. In addition, evaluation outcomes can have a direct impact on academic staff career prospects, such as career advancement, salary progression or contract renewal. Well-designed performance appraisal systems can also be used as a tool for the recognition and reward of teaching and research excellence.

Individual staff evaluation can take different forms, such as regular staff appraisal at institutional level or specific appraisal in the context of programme/institutional accreditation. Staff can be evaluated at the beginning of their career through the recruitment procedure, or during their career through performance appraisal processes. Evaluation methods can also vary and combine different elements such as self-assessment, constructive dialogue, evaluation by students, etc.

Evidence gathered for this report shows that there is no common approach to the evaluation of academic staff. Some countries make staff assessment a part of both internal and external quality assurance and have well-developed performance appraisal systems. However, in others, staff are only evaluated at the point of recruitment and/or in the context of programme and/or institutional accreditation.

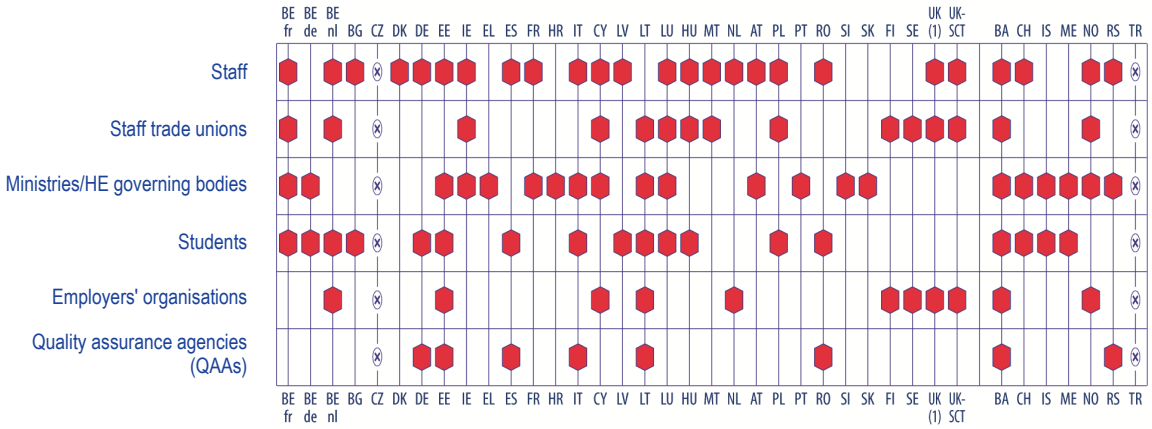
5.3.1. Stakeholders involved in establishing criteria and performance levels for appraisals of academic staff

Higher education institutions usually have full or large autonomy to define staff performance appraisal procedures and criteria. In almost all countries, they are responsible for performance measures and evaluation criteria for different categories of staff. The only exceptions are Greece, Croatia and Norway. While in Greece, the ministries responsible for higher education decide on evaluation criteria and performance levels, in Croatia, higher education governing bodies are empowered for this purpose. In Norway, the Ministry of Education and research fixes only the minimum standards.

In some countries, top-level authorities set the general framework establishing main principles and approaches, while evaluation procedures and criteria are defined at institutional level. This is the case in the French Community of Belgium, Ireland, France, Cyprus, Lithuania, Poland, Portugal, Slovenia, Switzerland and Turkey. In Germany (in some *Länder*), Austria, Slovenia and Montenegro, top-level regulations have put in place systems that ensure that student evaluation of teaching performance is obligatory. In Spain, higher education institutions are responsible, in theory, for deciding their own mechanisms and criteria to evaluate academic staff performance. However, in practice, about 90 % of them follow the main quality assurance agency (ANECA) guidelines on individual staff evaluation. A similar situation can be observed in the United Kingdom (England, Wales and Northern Ireland), where the whole process of staff evaluation and appraisal is autonomous although higher education institutions may follow the Quality Assurance Agency for Higher Education (QAA) Quality Code. In Finland, criteria for assessing academic staff performance form a part of the collective labour agreement.

Figure 5.3 shows the different stakeholders involved in establishing evaluation criteria and performance levels of academic staff.

Figure 5.3: Stakeholders typically involved in establishing criteria and performance levels for appraisals of academic staff, 2015/16



Source: Eurydice. UK (1) = UK-ENG/WLS/NIR

Country-specific notes

Czech Republic and **Turkey**: Autonomy of higher education institutions.
Malta: Information applies only to the Malta College of Art, Science and Technology (MCAST). Not applicable for the University of Malta.

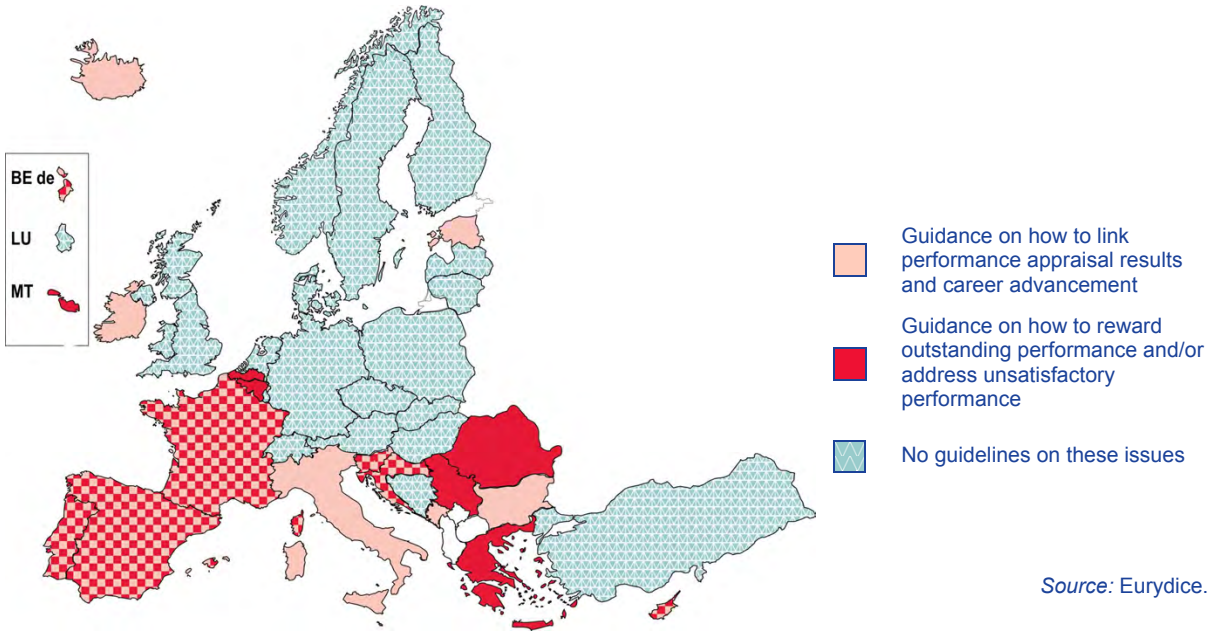
Academic staff are the most significant stakeholder involved in these processes. In 25 systems they act directly in such processes while staff trade unions play a role in 15 systems. Ministries or higher education governing bodies have an active role in 22 systems. In around a half of all European higher education systems, students are also involved, usually through elected students' representatives.

The participation of quality assurance agencies has been reported by eight countries, with their advisory role underlined in all cases. Employers' organisations are typically involved in elaboration of evaluation criteria and performance levels for appraisal of staff in the Flemish Community of Belgium, Estonia, Cyprus, Lithuania, the United Kingdom and Bosnia and Herzegovina. Moreover in the Netherlands, Finland, Sweden and Norway, where performance appraisal is a part of collective agreements, employers' organisations are also among the main stakeholders.

5.3.2. Guidance on the use of results of the individual staff evaluation

Figure 5.4 shows that in about a half of higher education systems steering documents provide guidance to higher education institutions on how to deal with evaluation outcomes. In others, higher education institutions also have a large degree of autonomy in the use of results of the individual evaluation and appraisal of academic staff, providing that they comply with general employment legislation.

Figure 5.4: Existence of steering documents guiding higher education institutions on the use of evaluation results, 2015/16



Source: Eurydice.

Country-specific note

Malta: Information applies only to the Malta College of Art, Science and Technology (MCAST). No guidance exists for the University of Malta.

Positive evaluation outcomes may be related to different reward mechanisms such as financial benefits, career advancement, revision of work content or extension of contract. On the other hand, unsatisfactory performance can lead to career barriers or, in some cases, to termination of employment. Steering documents propose different forms of financial benefits as a part of reward schemes in the Flemish Community of Belgium, Greece, Spain, France, Austria, Portugal and Slovenia. Usually financial benefits take the form of salary increases, financial allowances or bonuses. Moreover, as underlined in Chapter 4 (Section 4.3.1), performance-related pay is tending to gain ground in European higher education systems. In France and Slovenia, performance appraisal results are closely linked to the promotion and consequently to advancement to higher salary grades. In Spain, alongside financial benefits and career progression, steering documents mention also the reduction of teaching hours and the allocation of study leave for an innovative project as possible

rewards for outstanding performance. In Portugal, positive performance appraisal is also one of the mandatory conditions to obtain an indefinite contract for 'auxiliary' professors, as well as for the renewal of fixed-term contract staff.

In Bulgaria, Estonia, Ireland, Iceland and Montenegro, steering documents provide general orientations on how to link performance appraisal to career advancement.

Belgium, Greece and France report regulations providing higher education institutions with the legal possibility to deal with unsatisfactory staff performance, while in Croatia and Cyprus regulations also specify the loss of a position as one of the possible consequences of continued unsatisfactory performance.

Conclusions

National quality assurance systems use different mechanisms and methodologies to achieve, maintain and enhance the quality of higher education provision. While external quality assurance bodies and higher education institutions tend to comply with the general principles set by Standards and Guidelines for Quality Assurance in the European Higher Education Area, their implementation can vary depending on national political and socio-cultural context, and educational traditions.

The data provided by the Eurydice Network shows that irrespective of which mechanism is actually used, in all countries, with the exception of Turkey, external quality assurance bodies address issues related to academic staff to some extent. Teaching and research, followed by training opportunities, are the most common topics examined by external quality assurance. On the other hand, topics related to human resource management (recruitment procedures, performance appraisal systems and promotion practices) are least often evaluated, forming part of the framework in slightly more than half of the systems.

From the answers provided by quality assurance agencies (QAAs) within the 'Quality assurance agencies survey' ([6]), it appears that when evaluating teaching, external evaluation usually addresses teaching methods, innovation and good practice, distribution of teaching hours among different activities, tutoring, teaching qualifications and competencies. When research is evaluated, QAAs commonly focus on three main areas: staff and students' involvement, the research process and the content and outcomes of research. Institutional strategies, goals and international orientation are also taken into account.

In almost all countries, external quality assurance bodies refer to a set of criteria while conducting evaluation of issues related to academic staff. Different stakeholders such as quality assurance agencies, government bodies and higher education institutions may participate in the elaboration of evaluation criteria. The QAAs are involved in the process in almost all countries. Although being commonly recognised as the most important actor in quality assurance, higher education institutions intervene in the process of elaboration of evaluation criteria for external quality assurance in less than half of the systems. This relatively low involvement of higher education institutions merits further investigation.

With regard to individual staff evaluation, no common approach exists across European higher education system. Usually top-level authorities set a general framework and higher education institutions have full or substantial autonomy to define procedures and evaluation criteria. In about half of higher education systems, steering documents also guide higher education institutions on how to deal with evaluation outcomes.

Elaboration of evaluation criteria and performance levels of academic staff are typically collaborative processes. Academic staff are involved in this process directly or through trade unions in most higher education systems, while education authorities and students' representatives are among the main stakeholders in about half of the higher education systems. QAAs usually have an advisory role and employment organisations' participation is typically required in the higher education systems where staff appraisal is a part of a collective agreement.

([6]) For more details on the survey, see the Introduction to this report. Each time this survey is mentioned in the text, it will be referred to as the 'Quality assurance agencies survey' or the 'QAAs survey'.

CHAPTER 6: INTERNATIONALISATION AND STAFF MOBILITY

The internationalisation of European higher education systems has been an important part of national strategies for the development of higher education in the past decade. National policy developments in this area have been greatly influenced by the fact that internationalisation and mobility have been among the key objectives of the Bologna process and the European Higher Education Area (BFUG Working Group on Mobility and Internationalisation, 2015). While the main focus of internationalisation activities has often been student mobility, policy issues related to the mobility of academic staff have been given increased attention (Education International, 2007).

In recent years a growing number of terms have been used to define the internationalisation of higher education (de Wit, 2011). One distinction that is made is between 'internationalisation at home and abroad', although both aspects are seen as inter-related in various ways. In the first case, the aim is to develop an international awareness through the curriculum at the home institution. In the second case, the focus is on cross-border mobility of people, projects and programmes (Knight, 2008). In this chapter, the term internationalisation is understood to include a number of aspects that are centred around but not limited to international cooperation and (temporary) mobility.

There is a wide understanding among policy makers and actors at institutional level that the mobility of academic staff is beneficial for improving the quality of higher education and research, developing the circulation of knowledge and supporting student mobility (European Commission/EACEA/Eurydice, 2015). From the perspective of academic staff, opportunities for international activities and mobility could be viewed as an essential part of the terms and conditions of academic employement and as an important means for professional development.

However, a number of obstacles to staff mobility continue to exist. At institutional level, there is an extra administrative burden related to issues such as the temporary replacement of mobile staff, legal and administrative restrictions of employment contracts and recognition of qualifications of incoming staff. From a personal perspective, securing a leave of absence with contractual continuity, addressing differences in social security arrangements abroad, as well as a lack of recognition of the value of periods abroad can all pose obstacles to staff mobility (Education International, 2007).

Adding to the complexity of the phenomenon of academic mobility, differences in research funding and infrastructure contribute to the uneven concentration of highly skilled researchers in Europe (Van Der Wende, 2015). Geographical imbalances in mobility flows in turn prompt discussions about the negative effects of indefinite mobility/migration (Schellinger, 2015).

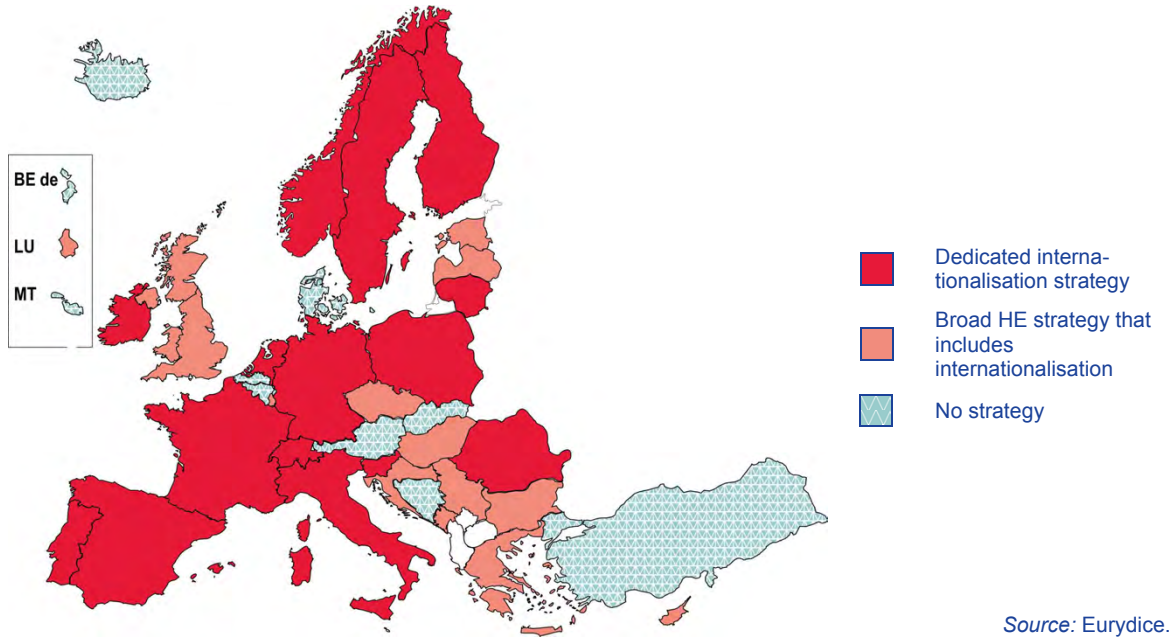
Using information about central level policies and measures, this chapter first looks at the existence of central-level strategies for internationalisation and their content, including the setting up of targets for staff mobility. It then reviews the mechanisms and definitions for the monitoring of staff mobility. Finally, this chapter analyses central measures to support specific internationalisation actions.

6.1. Top-level strategies for the internationalisation of higher education

Although in many European countries the main responsibility for internationalisation activities lies with the higher education institutions themselves, the framework and strategic direction are often set at central (top) level.

Across Europe there are three approaches in terms of the existence of a central level strategy for the internationalisation of higher education and they appear to be relatively equally widespread (see Figure 6.1).

Figure 6.1: Existence of top-level strategy for internationalisation in higher education, 2015/16



Source: Eurydice.

A first group of around a third of all European countries report that they have a dedicated strategy for internationalisation. This type of document usually contains aims such as improving the quality and competitiveness of the national higher education system, developing the international dimension, supporting incoming and outgoing mobility and preparing students to live and work in a global world. While academic staff have a major responsibility to take forward and implement such strategies, they tend to be mentioned explicitly only in relation to mobility.

This group includes Spain, where the Ministry of Education, Culture and Sports has elaborated the Strategy for the Internationalisation of Spanish Universities 2015-2020 ([1]). Its general aim is to 'consolidate a strong and internationally appealing university system that fosters entry and exit mobility of the best students and staff […] enhancing Spanish as a language for higher education'. The strategy contains a 'weaknesses-strengths-threats-opportunities' analysis for the internationalisation of Spanish universities.

Another example is Lithuania, where the Ministry of Education and Science has adopted the Action plan for promoting the international dimension in higher education for 2013-2016 ([2]). Its main objectives are to: expand the international dimension in the study process; support the outgoing and

([1]) http://www.mecd.gob.es/educacion-mecd/dms/mecd/educacion-mecd/areas-educacion/universidades/politica-internacional/estrategia-internacionalizacion/EstrategiaInternacionalizaci-n-ENGLISH.pdf

([2]) http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=456685&p_query=AUK%D0TOJO%20MOKSLO%20TARPTAUTI%D0KUMO%20SKATINIMO%202013%962016%20MET%D8%20VEIKSM%D8%20PLANAS&p_tr2=2

incoming mobility of students and teachers; develop the infrastructure of Lithuanian higher education institutions that supports mobility and support the Lithuanian (Baltic) studies centres abroad and promote Lithuanian higher education abroad.

A third example is provided by Slovenia, where the government Strategy for the Internationalisation of Slovenian Higher Education 2016-2020 ([3]) and its Action plan for 2016-2018 ([4]) has a variety of aims: to remove regulatory barriers to international mobility of Slovenian academic staff; to encourage Slovenians who have foreign PhD degrees or are employed at higher education or research institutions abroad to return to Slovenia; to offer Slovenian language and culture courses to foreign higher education teachers; to encourage the mobility of staff from non-EU countries, and to remove administrative barriers to the accreditation of international joint and double/multiple degrees.

Internationalisation strategies operate in a multiannual timeframe and are being periodically revised and updated. Currently the strategies in Ireland, Luxembourg, Finland and Sweden are undergoing a process of public discussion, review and approval.

Internationalisation strategies are usually adopted by the responsible ministry, although in Greece and Romania important provisions to facilitate international cooperation and mobility have been included in the respective laws on higher education.

In the second group of systems, a similar number of countries report the existence of a broad higher education strategy, which includes internationalisation. The level of detail regarding internationalisation policies in such documents varies. Sometimes, such documents contain only brief references to the specific policy area of internationalisation, as for instance, in the cases of the strategies in the Czech Republic and the United Kingdom (Wales and Northern Ireland). In the Czech Republic, the Ministry of Youth and Sports' Strategic Plan for the Scholarly, Scientific, Research, Development, Innovation, Artistic and Other Creative Activities of Higher Education Institutions (2016-2020) ([5]) recommends that higher education institutions improve the integration of foreign academics. Incentives for internationalisation include funding, accreditation and information policy. The plan notes that 'joint degree programmes will be funded adequately' and sets up a specific target that 'at least 3 % of degree programmes will be accredited as the joint/double/multiple degrees'.

Two further examples are provided by strategic documents in the United Kingdom. In Wales, the Welsh Government's 2013 Policy Statement on Higher Education ([6]) states that 'universities and the Welsh Government will work in partnership to develop international links that will help Wales become a [...] destination of choice for international students and staff [...]. Students and staff in Wales must be supported to be internationally mobile – through physically relocating to another country, or through increased online participation with international peers […]. Wales must work to attract and retain leading academic staff from across the world to help enrich our research and scholarship base'.

In Northern Ireland, the higher education strategy, Graduating to Success (2012) ([7]), aims to enhance Northern Ireland's international higher education activity by increasing the number of overseas international partnerships in teaching and research, and increasing the inward and outward mobility of

([3]) http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/razpisi/Visoko_solstvo/Internacionalizacija_VS_2013/Strategija_internacionalizacije_slovenskega_visokega_solstva_ENG_2016-2020_WEB.pdf

([4]) http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/razpisi/Visoko_solstvo/Internacionalizacija_VS_2013/Akcijski_nacrt_2016-2018_ANG_WEB.pdf

([5]) http://www.msmt.cz/vzdelavani/vysoke-skolstvi/dlouhodoby-zamer

([6]) http://gov.wales/topics/educationandskills/highereducation/policy-statement/?lang=en; pp. 11-12.

([7]) https://www.economy-ni.gov.uk/publications/graduating-success-he-strategy

staff and students. Sixteen actions or 'projects' were established under this strategy, of which Project Seven is to '[i]ncrease Northern Ireland's international higher education activity'. Its objectives include:

- By 2020, there will be a substantial increase in international engagement through collaborative teaching and research arrangements.
- By 2020, there will be a significant increase in inward and outward international mobility, moving towards a doubling of activity compared with the 2010 baseline.

In other cases, broad higher education strategies include relatively detailed policy objectives in the area of internationalisation – although not necessarily accompanied by targets, benchmarks or information on how objectives are to be achieved. This is the case in Greece where the National Strategy Plan for Higher Education ([8]) refers to a number of actions in support of internationalisation and mobility such as simultaneous teaching staff posts at a Greek Foundation and an Institute abroad, expansion and support of the institution of the visiting professor/researcher, funding of undergraduate and postgraduate curricula with international character and scope and in a foreign language, in order to attract students and staff from other countries, financing joint postgraduate programmes with leading universities and research centers abroad in areas where Greece has significant advantages and the necessary critical mass and other actions.

Finally, a third group of European higher education systems report that they do not have an internationalisation strategy at national level. However, in the majority of these systems, central support for internationalisation and mobility is organised in other ways.

Very often central support is related to the participation in various EU funded reaseach projects and mobility schemes, as well as bilateral and regional agreements for cooperation. For instance in the Flemish Community of Belgium, the Flanders Knowledge Area, the agency for mobility and cooperation in higher education, provides guidance for academic staff that wish to participate in international cooperation. In this context they publish a Handbook for Internationalisation which is regularly updated ([9]). In the French Community of Belgium, the Ministry of Education maintains an on-line database with more than 80 descriptors that support the construction of internationalisation strategies and other actions at institutional level ([10]).

Countries also mention that recruitment and promotion criteria for academic staff include the requirement of having spent teaching and research periods abroad. For instance, in Slovenia, the Resolution on the National Programme of Higher Education 2011-2020 notes that by 2020 '[e]very Slovenian higher education teacher will be required to live for a certain period abroad and constantly engage in training and development by means of international exchanges or visits abroad. One of the minimum criteria for election to title for associate and full professors is to have taught or researched at least three months at a higher education institution abroad' ([11]).

Moreover, several countries that do not have a top-level strategy on internationalisation, i.e., all parts of Belgium, Malta, Austria and Slovakia, report that they monitor the mobility of academic staff (see Figure 6.4) and/or have put in place top level measures to encourage staff to participate in selected internationalisation actions (see Figure 6.5). In addition, there have been recent chages in Austria,

([8]) http://www.opengov.gr/ypepth/?p=397
([9]) http://www.handboek-internationalisering.be
([10]) http://www.enseignement.be/index.php?page=0&navi=3637
([11]) http://pisrs.si/Pis.web/pregledPredpisa?id=RESO71

where in August 2016 the Ministry of Science, Research and Economy (BMWFW) adopted a higher education mobility strategy ([12]), which includes aspects of both student and staff mobility.

However no top level initiatives in support of staff mobility have been reported by the remaining countries that do not have a central strategy (Denmark, Bosnia and Herzegovina, Iceland and Turkey).

6.1.1. Content of internationalisation strategies

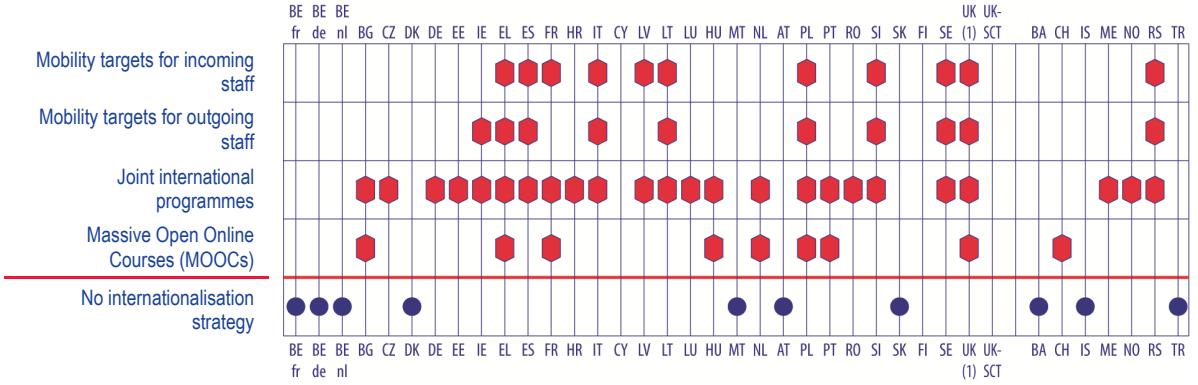
In the cases where a specific or a broad strategic document on internationalisation exists, countries were asked to specify whether the document makes reference to four specific issues:

- mobility targets for incoming academic staff,
- mobility targets for outgoing academic staff,
- joint international programmes, and
- massive open online courses (MOOCs).

Figure 6.2 shows that in the great majority of cases, internationalisation strategies mention the creation of joint international programmes. However, references to the setting up of mobility targets for incoming and/or outgoing staff or to the development of Massive Open Online Courses (MOOCs) are much more rare.

The internationalisation strategy that is in operation in Greece mentions each of the four selected areas, whereas those in Spain, France, Italy, Lithuania and Sweden make reference to three of the above issues.

Figure 6.2: Content of internationalisation strategies at top level (selected areas), 2015/16



Source: Eurydice.

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

Country-specific note

United Kingdom (ENG/WLS/NIR): Mobility targets are mentioned in the strategies for Northern Ireland and Wales.

6.1.2.Targets for the mobility of academic staff

Few countries include staff mobility targets in strategic documents at central level. In some cases, as for instance in Ireland, Croatia and Finland this is due to the fact that such targets are set at institutional level and are expected to be part of the strategies that are developed by each higher education institution. Thus in Finland, the performance agreements between the Ministry of Education and higher education institutions contain certain quantitative targets, including a target on incoming and outgoing mobility of staff.

([12]) https://wissenschaft.bmwfw.gv.at/fileadmin/user_upload/wissenschaft/publikationen/HMS_FINAL.pdf

Even when centrally set targets are reported, they often refer to the more general goals of increasing the number of incoming and outgoing staff rather than setting up specific numerical targets. For instance this is the case with the central level documents in Spain, Italy, Sweden and Serbia. In Spain, the Strategy for the Internationalisation of Spanish Universities 2015-2020 ([13]) establishes four strategic pillars and 28 specific objectives. The objective in terms of incoming mobility is to 'foster the entry, stay and residence of foreign students, professors and researchers, in line with the Directives and national laws'. The target for outgoing staff is to 'increase the international mobility of university staff' by, among other means, 'taking international activities into account in the accreditation and professional career of staff'. Another example is Italy, where the three-year plan for the development of the university system 2013-2015 ([14]) refers, among other issues, to the following indicators and benchmarks for monitoring and evaluating university programmes 2013-2015: recruitment of scholars and professors from abroad; courses at all levels in a foreign language; and joint or double degree qualifications.

Only a few countries have set numerical targets for the mobility of academic staff. In France and Latvia, targets are concerned with the share of foreign academic staff. In the case of France, the annual publication on the performance of the higher education sector (*Projet annuel de performance de l'enseignement supérieur* – PAP), which is annexed to the Draft Budget (*Projet de Loi de Finances* – PLF), provides data on the share of foreign nationals among the teachers and researchers in higher education. In 2014, 14.7 % of teachers and researchers were foreigners and it was projected that in 2015 this would increase to 17.5 %. The target for 2017 is 20 % ([15]).

In Latvia, the targets for incoming academic staff are defined in the Law on Higher Education Institutions ([16]) and the Guidelines of Education Development 2014-2020 ([17]). Article 3 (7) of the law states that 'at least five per cent of the academic staff' at each institution shall be visiting professors and others who have been employed in a higher education institution in another EU Member State in the past five years. Moreover, the Guidelines of Education Development 2014-2020 note that the share of foreign academic staff is expected to increase gradually from 0.5 % in the base year 2012, to 2 % in 2017 and up to 5 % in 2020.

On the other hand, in Lithuania, the central authorities have established precise targets for both incoming and outgoing mobility. These targets concern three specific aspects of internationalisation:

- Incoming mobility of senior professors and lecturers, funded by the state budget – 80 visits in 2016;
- Joint Study Programmes – 40 by 2016 ([18]);
- Percentage of higher education teachers who take part in the Erasmus mobility programme – 7 % by 2016, 10 % – by 2020 ([19]).

([13]) http://www.mecd.gob.es/educacion-mecd/dms/mecd/educacion-mecd/areas-educacion/universidades/politica-internacional/estrategia-internacionalizacion/EstrategiaInternacionalizaci-n-ENGLISH.pdf

([14]) http://attiministeriali.miur.it/media/233441/dm104_2014.pdf See annex to the DM 104/2014 'Indicators and benchmarks for monitoring and evaluating university programmes 2013-2015'.

([15]) http://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/farandole/ressources/2015/pap/pdf/DBGPGMPGM150.pdf See indicator 5.2, p. 27.

([16]) http://likumi.lv/doc.php?id=37967. See Article 3(7).

([17]) https://rio.jrc.ec.europa.eu/en/library/guidelines-development-education-2014-2020

([18]) The Action Plan for Promoting the International Dimension in Higher Education for 2013-2016 http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=456685&p_query=AUK%D0TOJO%20MOKSLO%20TARPTAUTI%D0KUMO%20SKATINIMO%202013%962016%20MET%D8%20VEIKSM%D8%20PLANAS&p_tr2=2

([19]) The National Programme for the Development of Studies, Scientific research and Experimental (Social and Cultural) Develoment 2013-2020 https://www.smm.lt/uploads/documents/en_smm/SMTEP%20programa_FINAL_EN.pdf

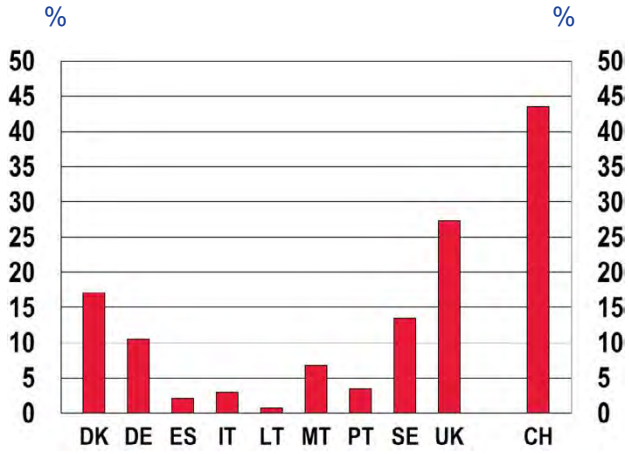
Finally, in Slovenia the strategy for the internationalisation of Slovenian higher education 2016-2020 ([20]) and its action plan ([21]) establish targets for outgoing and incoming higher education teachers:

- 8 % of mobile Slovenian higher education staff by 2020 with 1 013 000 EUR of Cohesion funds earmarked for that purpose up to 2018;
- Increasing the number of visiting international experts and higher education teachers with 3 310 000 EUR cohesion funds earmarked up to 2018.

6.2. Top-level monitoring of staff mobility

Harmonised comprehensive statistics on the mobility of academic staff in Europe are not currently available. Nevertheless, data collected as part of the European Tertiary Education Register (ETER) ([22]) point to a great diversity among higher education systems in terms of the share of foreign citizens among academic staff. While Lithuania and Spain had, respectively, less than 1 % and around 2 % of foreign academic staff in 2013, in Switzerland and the United Kingdom these percentages were around 43 % and 27 % respectively (see Figure 6.3).

Figure 6.3: Share of foreign citizens among academic staff, 2013



DK	17.1
DE	10.5
ES	2.1
IT	3.0
LT	0.7
MT	6.8
PT	3.5
SE	13.5
UK	27.3
CH	43.5

Source: European Tertiary Education Register (data extracted November 2016).

Explanatory note

While the European Tertiary Education Register (ETER) includes data on academic staff in three types of institutions – public, private and private government-dependent – the figure only considers public and private government-dependent institutions.

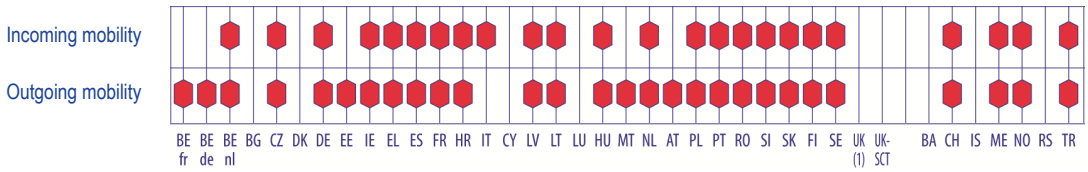
The majority of European higher education systems report that they have established mechanisms for monitoring the mobility of academic staff at national level (see Figure 6.4). In most of these cases, monitoring concerns both the incoming and outgoing mobility of staff.

([20]) http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/razpisi/Visoko_solstvo/Internacionalizacija_VS_2013/Strategija_internacionalizacije_slovenskega_visokega_solstva_ENG_2016-2020_WEB.pdf
http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/razpisi/Visoko_solstvo/Internacionalizacija_VS_2013/Akcijski_nacrt_2016-2018_ANG_WEB.pdf

([21]) http://www.mizs.gov.si/fileadmin/mizs.gov.si/pageuploads/razpisi/Visoko_solstvo/Internacionalizacija_VS_2013/Akcijski_nacrt_2016-2018_ANG_WEB.pdf

([22]) The European Tertiary Education Register (ETER) is a database of higher education institutions in Europe. See: https://www.eter-project.com/ [Accessed 15 May 2017].

Figure 6.4: Top-level monitoring of mobility of academic staff, 2015/16



Source: Eurydice.

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

Country-specific notes

Norway and **Turkey**: Monitoring concerns only the staff mobility in the framework of the Erasmus+ Programme.

Data on mobility flows is usually transmitted to the relevant ministry or government agencies that manage mobility projects. It is not rare that, depending on the type of mobility programme, several government entities are involved in monitoring mobility flows. In Sweden for instance, the Swedish Council for Higher Education is collating data on Erasmus+ mobility and the programme Linnaeus Palme, which is financed by the Swedish International Development Cooperation Agency (SIDA), whereas the Centre for International Mobility (CIMO) is collecting data on the Nordplus Programme for mobility among eight countries in the Baltic and Nordic regions.

Mobility statistics collected at national level most often concern all categories of academic staff. In most cases, except in Ireland, Poland and Montenegro, information on mobility flows is publicly available, usually as part of general education statistics and annual reporting exercises.

6.2.1. Definition of staff mobility

Staff mobility can take a number of forms such as academic visits, exchanges, sabbaticals, grants and employment positions (Education International, 2007). Where top-level monitoring of staff mobility exists, education authorities use various definitions. In a number of cases, countries apply only the definition of mobility that is used for the purposes of the Erasmus+ Programme. Indeed the impact of the Erasmus+ programme on staff mobility flows is significant. The staff mobility strand in the Erasmus Programme provides support to around 57 000 staff exchanges per year and accounts for 7 % of the overall Erasmus+ budget (European Commission, 2015a).The Erasmus+ definition is concerned with two types of staff mobility: for teaching and training purposes. It states that '[a] teaching or training period between two Programme countries must last a minimum of 2 days and a maximum of 2 months' ([23]).

The Czech Republic is an example of a country where the data collected at central level distinguishes between mobility in the framework of European programmes and other types of mobility. 10 743 Czech academics went abroad in 2013, out of which 2 257 used various European programmes (e.g. Erasmus, Ceepus and Action). At the same time, 5 318 academics arrived from abroad in 2013, out of which 1 609 carried out their mobility via various European programmes ([24]).

In other national contexts, mobility is defined in broader terms. For instance, in the Flemish Community of Belgium, higher education institutions report data on 'any work-related stay abroad'. In Germany, the duration of staff mobility is defined as 'minimum three months' and in the Netherlands as 'minimum two weeks'.

([23]) Erasmus + Programme Guide at https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/files/resources/erasmus-plus-programme-guide_en.pdf

([24]) http://www.msmt.cz/vzdelavani/vysoke-skolstvi/vyrocni-zpravy-o-cinnosti-vysokych-skol

Some countries use more precise definitions that distinguish between different lengths of stay abroad. In Austria, there are three types of staff mobility that are considered: less than five days; five days to three months, and more than three months. In Montenegro, short term mobility lasts up to one month and long-term mobility is more than three months.

However, several countries report that they do not have a centrally agreed definition of staff mobility and are therefore unable to provide a complete national picture of mobility flows. For instance, in Sweden, central level monitoring is only regularly undertaken for the programmes managed by the Swedish Council for Higher Education. Each programme has its specific definition of mobility in terms of minimum length of period abroad, purposes, etc. However, as from 2016, the Swedish Higher Education Authority together with Statistics Sweden will include questions on higher education staff mobility in the bi-annual survey of the working time of academic staff (including doctoral students with an employment contract).

6.3. Top-level support for specific actions related to internationalisation

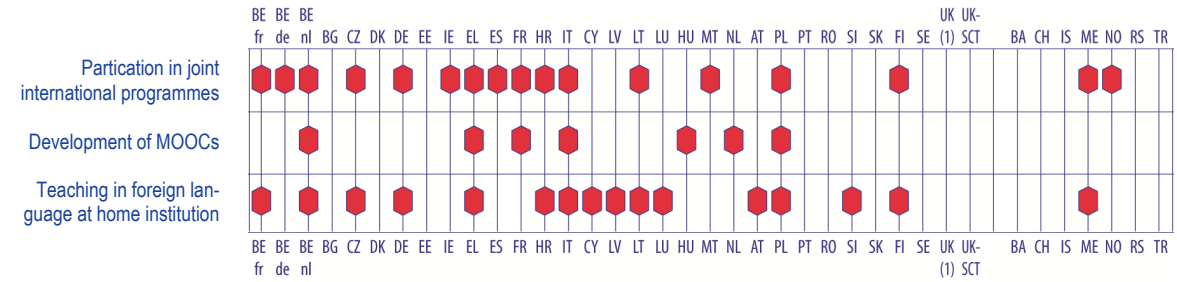
Apart from Erasmus+ and other EU-funded programmes, European countries administer a number of national, regional and bilateral programmes that include a strand on staff mobility. The information on programmes that has been collected for this report broadly confirms the conclusions of an earlier Eurydice analysis (European Commission/EACEA/Eurydice, 2013). Around half of all European countries participate in mobility programmes other than Erasmus+ and other EU funded projects. In particular, well established regional programmes in Central and Eastern Europe and in the Nordic region countinue to play a significant role in supporting mobility.

As an illustration, Annex 2 contains several country examples of large-scale programmes and information about targeted staff categories, participation statistics and financial support. Detailed information on mobility programmes for academic staff is available in the Eurydice descriptions of national education systems ([25]).

Finally, it appears that central support for three internationalisation actions, i.e. joint international programmes, development of MOOCs and teaching in a foreign language at the home institution, is unevenly distributed across European systems (see Figure 6.5).

Around half of all countries report central level measures to encourage academic staff to participate in joint international programmes or to teach in foreign languages in home universities. Central-level incentives for staff to develop Massive Open Online Courses (MOOCs) are even less common (seven systems).

Figure 6.5: Top-level measures to encourage academic staff to participate in specific actions related to internationalisation, 2015/16



Source: Eurydice.

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

([25]) https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Mobility_and_Internationalisation

While 14 higher education systems do not report central support for any of the three actions, the Flemish Community of Belgium, Greece, Italy and Poland provide incentives for all three categories. Moreover the French Community of Belgium, the Czech Republic, Germany, France, Lithuania, Finland and Montenegro provide incentives in two out of three categories. This wide varation in approaches could indicate differences in the relative policy priority given to each action, but could also reflect the different stages of development in each system regarding these issues. For instance, in Sweden, there are no specific policy measures to encourage teaching in a foreign language, as this is already happening for the majority of courses in the second cycle.

In terms of the types of central support that are provided, incentives to participate in joint international programmes often include co-financing, as well as communication campaigns (the German-speaking Community of Belgium and Greece) and inclusion in the performance agreements between higher education institutions and the central education authorities (Ireland, Finland and Norway).

Central support for the creation of MOOCs ranges from targeted funding to the creation of portals that promote the available offer of courses or encourage the removal of legislative obstacles for the development and running of MOOCs. In the Flemish Community of Belgium, the Department of Education and Training provides an annual funding for the open higher education study centres hosted on six campuses of the five Flemish universities and their cooperation with the Open University of the Netherlands. In Italy, the Ministry of Education is financing EduOpen, the first Italian university portal, that involves 14 Italian public universities for the offer of free online courses. In Sweden, the Higher Education Authority (*Universitetskanslersämbetet*) published a report on MOOCs in early 2016, recommending that the government gives higher education institutions the legal right to develop and run MOOCs, and to encourage this. The government decision is pending.

Incentives for academic staff to teach in foreign languages recognise that language competences are an important aspect of the internationalisation of higher education. Such incentives are also often linked to the objectives of attracting foreign students or developing joint international programmes. In Austria and Finland, higher education institutions are encouraged to increase the number of courses offered in English in the performance agreements with the respective ministry.

In some systems, linguistic diversity lies at the heart of higher education. For example, the principle of multilingualism is one of the founding principles of the University of Luxembourg. Most courses are held in two of the official languages of the University (German, French and English). Teachers are required to teach in different languages ([26]).

Incentives can also be accompanied by restrictions regarding the share of courses that are taught in a foreign language. Thus in the French Community of Belgium, the Decree of 7 November 2013, states that French remains the language of teaching and assessing the learning activities and adds that English may be the language of teaching and assessment for up to 25 % of the credits at bachelor level and 50 % of the credits at master level ([27]).

([26]) http://eli.legilux.public.lu/eli/etat/leg/loi/2003/08/12/n17

([27]) http://www.gallilex.cfwb.be/document/pdf/39681_001.pdf See art. 75, §2.

Conclusions

This chapter shows that the majority of European higher education systems have defined strategic objectives related to the internationalisation of higher education. However while academic staff have a major responsibility to take forward and implement such objectives, they tend to be mentioned explicitly only in relation to mobility. Even when this is the case, centrally set targets for staff mobility rarely exist. On the other hand, most systems report that they have put in place some form of monitoring of staff mobility flows. Monitoring is based on a variety of definitions that could be limited to the definitions used by the Erasmus+programme or distinguish between other types of mobility that vary in objectives and duration.

Finally, central level support for three specific internationalisation actions, i.e. joint international programmes, teaching in a foreign language at the home institution and development of Massive Open Online Courses (MOOCs), is unevenly distributed across European systems. Half of all countries report central level measures to encourage academic staff to participate in joint international programmes or to teach in foreign languages in home universities. Central level incentives for staff to develop MOOCs are much less common.

Annex 1: National diagrams of academic staff categories

Guidelines for the reader

The aim of the diagram is to provide a visual overview of the most representative categories of academic staff in each national higher education system.

The staff categories are associated with three stages in the career path ([1]):

- **Junior categories**: These are initial/early stage categories of academic employment. They typically include young researcher/teachers who may intend to progress towards higher ranks of the academic profession ([2]).
- **Intermediate categories**: These categories include academic staff with substantial research and/or teaching experience that, typically, grants them the right to direct research projects and to teach at postgraduate level.
- **Senior categories**: These are the highest ranks of academic staff, including professors, and in some countries also categories such as senior researchers and scientific directors.

The diagram also offers the possibility to show staff categories that cannot be associated with any of the above groups. These are referred to as '**Other categories**' ([3]).

For most countries, the staff categories displayed can be found in the main types of higher education institution. However, in some systems – which are clearly indicated – academic staff categories are associated with particular types of higher education institution. In these systems, only the staff categories found in universities are shown ([4]).

Diagrams do not intend to be comprehensive – showing all categories of staff that exist. Rather, they show the 'most representative categories' which normally refers to categories representing at least 5 % of the total academic staff population. In some countries, however, and particularly those with a large number of staff categories, a category with a smaller proportion of staff may still be an important structural element of the system, and will be shown.

Moreover, certain categories of staff have been systematically excluded from the diagram. This concerns, in particular, academic staff that have only management responsibilities and are not engaged in either teaching or research. Visiting academic staff – whether from other countries or from other higher education institutions within the country – are also not shown. The same applies to retired academic staff retaining the title on an honorary basis (e.g. *professor emeritus*).

For each staff category shown ([5]), a number of information elements are presented:

([1]) Within the Eurydice data collection, countries were asked to locate academic staff that exist in their country within one of the three proposed stages. They were asked to make a 'best fit' attempt at locating staff categories at the most appropriate stage. Categories that could not be associated with any of the three stages were reported separately and are displayed as 'other categories'.

([2]) Countries were asked not to report PhD candidates as a separate junior category of academic staff, unless they may be identified within specific academic staff categories (e.g. 'assistants'). If, despite these guidelines, PhD candidates were reported, they are shown in the diagram. This can be partly explained by differences in the status of PhD candidates, which are discussed in Chapter 2 (Section 2.1.1).

([3]) In the case of countries that reported no staff under 'Other categories' the item is shown, but no staff category is indicated.

([4]) Since universities are a required element in the diagram, no diagram has been produced for the German-speaking Community of Belgium (which has no university institutions).

([5]) Staff categories are displayed in English and in a state language. Translations into English have been partially harmonized to enable better comparability across countries.

- The first two elements in the diagram outline the **main duties** of staff in the category, and specifically whether staff are employed to undertake teaching () and/or research (). If the staff category includes teaching as well research duties, both options are indicated. If it includes teaching and no research duties, only teaching is indicated (and *vice versa*).
- The next two elements show two potential **qualification requirements,** i.e. whether a doctoral degree () or postdoctoral qualification ([6]) () is legally required in order to access this category of staff. If the category can be accessed without one of the above qualifications, but the qualification in question has to be achieved within a defined period of time, the diagram does not display it as a legal requirement ([7]).
- The last two elements refer to two types of **employment contracts** – fixed-term () and indefinite () contracts. The first category refers to contracts that expire at the end of a specified period. The second category includes contracts for an indefinite period of time, whether they are considered as 'permanent' or without a predefined end date. If more than 90 % of staff within a category have one of these two types of contract, only that type is indicated in the diagram. If, however, the two main contract types are more equally distributed, they are both indicated. Moreover, if additional fixed-term or hourly contracts can be offered to staff with an indefinite contract, only the indefinite contract is shown.

On the right of these central icons, statistical information is presented on the numbers of staff in the category. This is shown as a headcount (HC) where national authorities can provide this information. In a few cases, headcount data is not available, and staff numbers are shown as full-time equivalents (FTE). Official central-level statistics are the prime source of this information ([8]). If there is no official data regarding certain staff categories, the diagram indicates that no data is available (n/a).

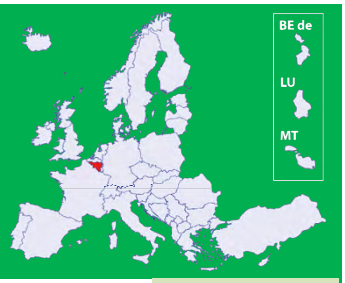
Where data permits, a stacked bar presents the proportions of staff within the stages presented in the diagram.

Finally, under each diagram information is included about the typical career path, i.e. the most typical career progression of academic staff. The typical career path does not necessarily refer to all staff categories displayed in the diagram, as some staff categories might not be a part of it. Moreover, there might be several distinct career paths, in particular in countries where teaching (or teaching/research) and research careers are clearly separated. The reader should also note that in some countries, the concept of typical career path may be regulated, requiring staff to follow the outlined pathway. In other countries, academics may have flexibility within the typical career path, for example, combining teaching and research pathways. The information under the diagram does not capture this distinction.

([6]) See the concepts presented in Chapter 2 (Figure 2.3) and the Glossary.
([7]) For more details, see the analysis presented in Chapter 2 (Sections 2.1.2 and 2.2).
([8]) Full references to national statistics reported in the diagrams are indicated at the end of this annex.

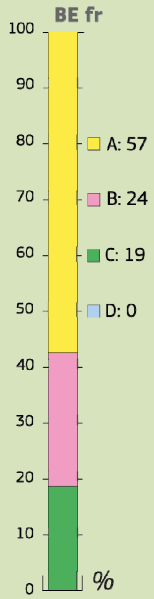
National diagrams

BELGIUM
FRENCH COMMUNITY



Name of the academic staff category	Headcounts
A. Junior categories	
Lecturer / *Chargé de cours*	*1 785*
B. Intermediate categories	
Associate professor / *Professeur*	*698*
Professor (part-time) / *Professeur extraordinaire*	*55*
C. Senior categories	
Professor / *Professeur ordinaire*	*578*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on CREF, 2015 (reference year of data: academic year 2014/15).

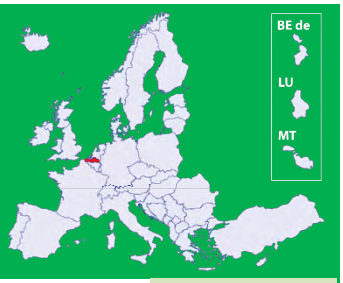
Note: Diagram covers university academic staff only.

Typical career path:

Lecturer ► Associate professor ► Professor

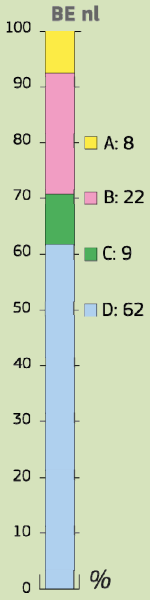
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

BELGIUM
FLEMISH COMMUNITY



Name of the academic staff category	Headcounts
A. Junior categories	
Graduate teaching & research assistant *Assistent*	1 044
Senior research fellow *Doctor-assistent*	456
B. Intermediate categories	
Assistant professor *Docent*	1 459
Associate professor *Hoofddocent*	1 242
Teaching assistant *Praktijkassistent*	1 635
C. Senior categories	
Professor *Hoogleraar*	757
Full professor *Gewoon hoogleraar*	1 006
D. Other categories	
Contract research staff *Wetenschappelijk personeel*	12 308

Share of staff categories



Source: Eurydice, statistics based on Vlaams Ministerie van Onderwijs en Vorming, 2015 and VLIR, 2015 (reference year of data: academic year 2014/15).

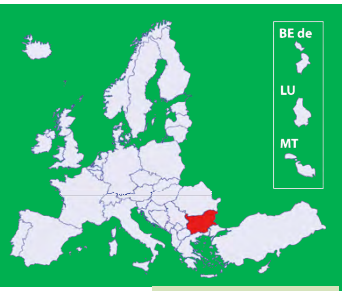
Note: Diagram covers university academic staff only.

Typical career path:

Graduate teaching & research assistant ► Senior research fellow ► Assistant professor ► Associate professor ► Professor ► Full professor

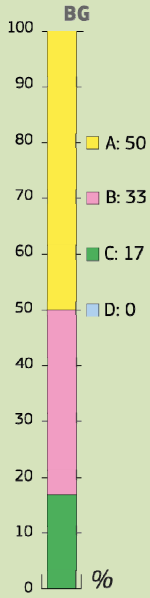
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

BULGARIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant *Асистент (Asistent)*	*5 200*
Senior assistant *Главен асистент (Glaven asistent)*	*2 935*
B. Intermediate categories	
Associate professor *Доцент (Dotzent)*	*5 385*
C. Senior categories	
Professor *Професор (Profesor)*	*2 748*
D. Other categories	

Share of staff categories



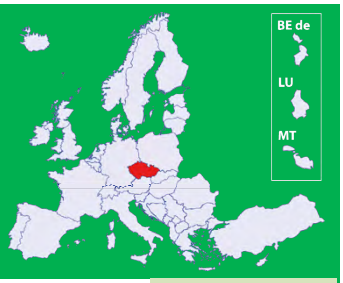
Source: Eurydice, statistics based on CIOO, 2015 (reference year of data: academic year 2015/16).

Typical career path:

Assistant ► Senior assistant ► Associate professor ► Professor

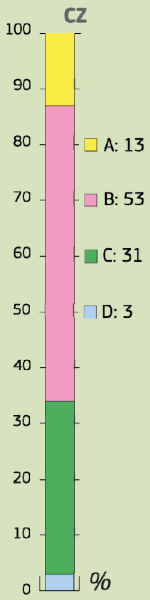
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

CZECH REPUBLIC



Name of the academic staff category	Headcounts
A. Junior categories	
Lecturer *Lektor*	*1 081*
Assistant *Asistent*	*1 966*
B. Intermediate categories	
Senior assistant *Odborný asistent*	*12 314*
C. Senior categories	
Associate professor *Docent*	*4 632*
Professor *Profesor*	*2 615*
D. Other categories	
Researcher (taking part in teaching activities) *Vědečtí, výzkumní a vývojoví pracovníci podílející se na pedagogické činnosti*	*678*

Share of staff categories



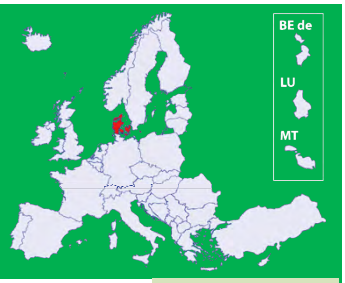
Source: Eurydice, statistics based on MŠMT, 2015 (reference year of data: 2015).

Typical career path:

Lecturer ► Assistant ► Senior assistant ► Associate professor ► Professor

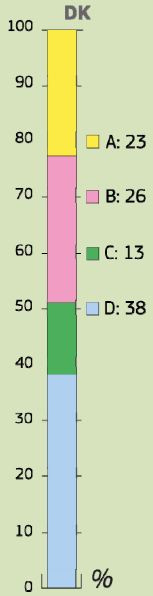
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

DENMARK



Name of the academic staff category	Headcounts
A. Junior categories	
Postdoc *Postdoc*	*2 701*
Assistant professor *Adjunkt*	*1 250*
Researcher *Forsker*	*200*
B. Intermediate categories	
Associate professor *Lektor*	*4 231*
Senior researcher *Seniorforsker*	*630*
C. Senior categories	
Professor *Professor*	*1 879*
Professor with specific responsibilities *Professor med særlige opgaver (MSO)*	*459*
D. Other categories	
Part-time lecturer *Ekstern lektor*	*886*
Ph.D *Ph.d.-stipendiat*	*4 964*
Research assistant *Videnskabelig assistent*	*1 186*
Assistant lecturer *Undervisningsassistent*	*n/a*

Share of staff categories



Source: Eurydice, statistics based on Moderniseringsstyrelsen, 2015 (reference year of data: academic year 2015).

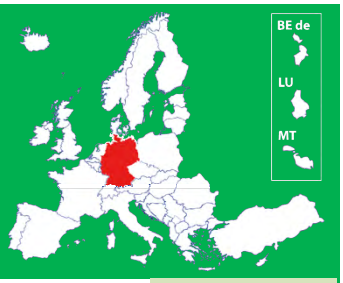
Note: Diagram covers university academic staff only.

Typical career path:

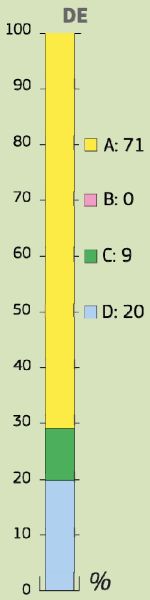
Assistant professor/Researcher ► Associate professor/Senior researcher ► Professor/Professor with special responsibilities

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

GERMANY



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
Scientific and creative arts staff *Wissenschaftliche und künstlerische Mitarbeiterinnen und Mitarbeiter*	*179 651*	
Scientific and creative arts staff *Wissenschaftliche und künstlerische Mitarbeiterinnen und Mitarbeiter*		
B. Intermediate categories		
Lecturer and assistant *Dozenten und Assistenten*	*3 400*	
C. Senior categories		
Junior professor *Juniorprofessorinnen und Juniorprofessoren*	*45 749*	
Professor (including junior professor) *Professorinnen und Professoren (einschließlich Juniorprofessorinnen und Juniorprofessoren)*		
D. Other categories		
Freelance lecturer *Lehrbeauftragte (freelance lecturers paid on an hourly basis, part-time)*	*98 944*	
Specific task teacher *Lehrkräfte für besondere Aufgaben*	*n/a*	



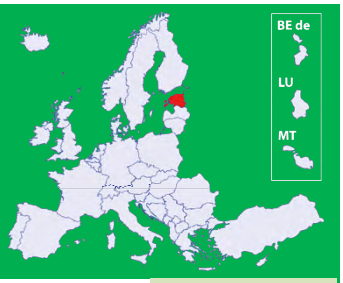
Source: Eurydice, statistics based on Statistisches Bundesamt, 2015 (reference year of data: 2015).

Typical career path:

Scientific and creative arts staff ► Assistant / Lecturer ► Junior professor ► Professor

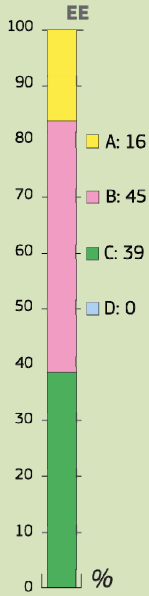
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

ESTONIA



Name of the academic staff category	Headcounts
A. Junior categories	
Early-stage researcher *Nooremteadur*	82
Teacher *Õpetaja*	205
Assistant *Assistent*	388
Instructor *Instruktor*	22
B. Intermediate categories	
Lecturer *Lektor*	1 508
Research fellow *Teadur*	390
Senior assistant *Vanemassistent*	33
Senior teacher *Vanemõpetaja*	7
C. Senior categories	
Associate professor *Dotsent*	703
Professor *Professor*	551
Senior research fellow *Vanemteadur*	380
Research professor *Juhtivteadur*	24
D. Other categories	

Share of staff categories

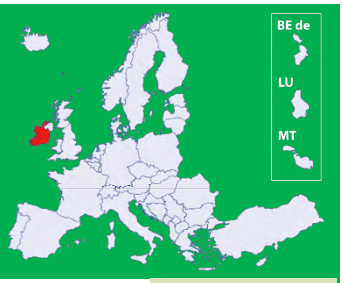


Source: Eurydice, statistics based on HTM, 2016 (reference year of data: academic year 2015/16).

Typical career path: Teacher ► Lecturer ► Associate professor ► Professor

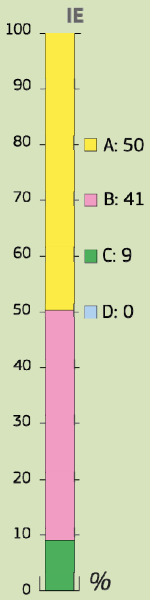
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

IRELAND



Name of the academic staff category	Headcounts
A. Junior categories	
Part-time teaching assistant *Part-time teaching assistant*	*1 674*
Lecturer below the bar *Lecturer below the bar*	*1 238*
B. Intermediate categories	
Lecturer above the bar *Lecturer above the bar*	*1 238*
Senior lecturer *Senior lecturer*	*868*
Associate professor *Associate professor*	*315*
C. Senior categories	
Professor *Professor*	*527*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on HEA, 2013 (reference year of data: academic year 2012/13).

Note: Diagram covers university academic staff only.

Typical career path:

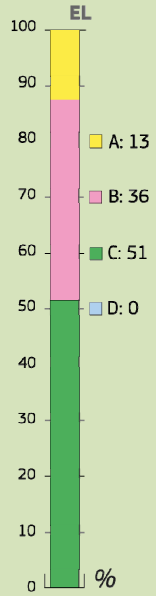
Part-time teaching assistant ► Lecturer below the bar ► Lecturer above the bar ► Senior lecturer ► Associate professor ► Professor

Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

GREECE

Name of the academic staff category	Headcounts
A. Junior categories	
Special training staff *Ειδικό εκπαιδευτικό προσωπικό (ΕΕΠ) (Eidiko ekpaideftiko prosopiko (EEP))*	245
Special laboratory and teaching staff *Εργαστηριακό διδακτικό προσωπικό (ΕΔΙΠ) (Ergastiriako didaktiko prosopiko (EDIP))*	1 269
B. Intermediate categories	
Lecturer *Λέκτορας (Lectoras)*	628
TEI Lecturer *Καθηγητής εφαρμογών (Kathigitis efarmogon)*	442
Assistant professor *Επίκουρος/Επίκουρη καθηγητής/Καθηγήτρια (Epikouros/Epikouri kathigitis/Kathigitria)*	3 296
C. Senior categories	
Associate professor *Αναπληρωτής/Αναπληρώτρια καθηγητής/Καθηγήτρια (Anaplirotis/Anaplirotria kathigitis/Kathigitria)*	2 643
Professor *Καθηγητής/Καθηγήτρια Α' βαθμίδας (Kathigitis/Kathigitria vathmidas A)*	3 575
D. Other categories	

Share of staff categories



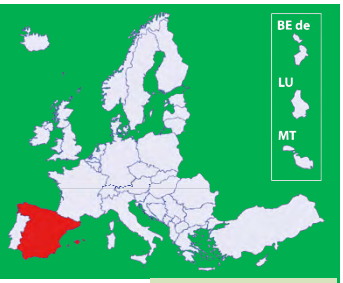
Source: Eurydice, statistics based on Ministry of Education, Research and Religious Affairs, 2016 (reference year of data: academic year 2015/16).

Typical career path:

Lecturer ► Assistant professor ► Associate professor ► Professor

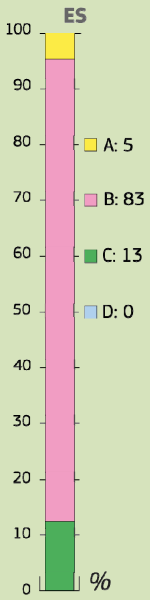
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

SPAIN



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant professor *Profesor ayudante*	*907*
PhD assistant professor *Profesor ayudante doctor*	*2 896*
B. Intermediate categories	
Associate professor *Profesor asociado*	*28 477*
PhD contract professor *Profesor contratado doctor*	*9 442*
University senior lecturer *Profesor titular de universidad*	*29 330*
C. Senior categories	
University senior professor *Catedrático de universidad*	*10 234*
D. Other categories	

Share of staff categories



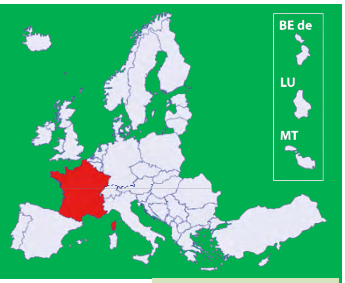
Source: Eurydice, statistics based on MECD, 2015 (reference year of data: academic year 2014/15).

Typical career path:

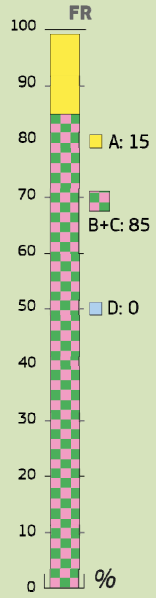
Assistant professor ► PhD assistant professor ►PhD contract professor ► University senior lecturer ► University senior professor

Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

FRANCE



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
PhD candidate with a doctoral contract and teaching assignments *Doctorant contractuel assurant des missions d'enseignement*	*12 081*	
Teaching and research temporary staff *Attaché temporaire d'enseignement et de recherche (ATER)*		
B. Intermediate categories		
Tenured assistant professor, Tenured assistant *Maître de conférences, Assistant titulaire*	*72 702*	
Associate assistant professor *Maître de conférences associé*		
Secondary school teachers in higher education *Enseignant du second degré*		
C. Senior categories		
Associate university professor *Professeur des universités associé*		
University professor *Professeur des universités (PU)*		
D. Other categories		



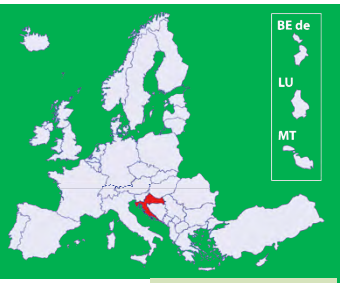
Source: Eurydice, statistics based on MENESR-DGRH, 2016 (reference year of data: academic year 2015/16).

Typical career path:

PhD candidate with a doctoral contract and teaching assignments ► Teaching and research temporary staff ► Tenured assistant professor ► University professor

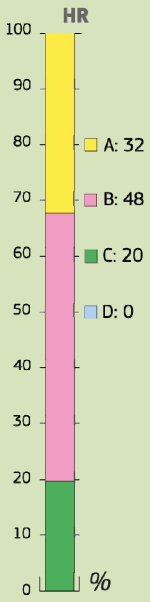
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

CROATIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant *Asistent*	*3 472*
Post-doctoral fellow *Poslijedoktorand*	*1 360*
B. Intermediate categories	
Assistant professor *Docent*	*2 552*
Associate professor *Izvanredni profesor*	*1 775*
Artistic associate *Umjetnički suradnik*	*49*
Language instructor *Lektor*	*133*
Lecturer *Predavač*	*1 545*
Senior lecturer *Viši predavač*	*1 114*
C. Senior categories	
Professor *Redoviti profesor*	*2 563*
College professor *Profesor visoke škole*	*382*
D. Other categories	

Share of staff categories



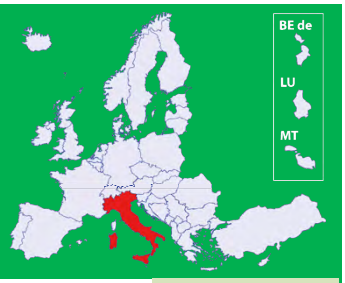
Source: Eurydice, statistics based on DZS, 2015 (reference year of data: academic year 2014/15).

Typical career path:

Assistant ► Post-doctoral fellow ► Assistant professor► Associate professor ► Professor

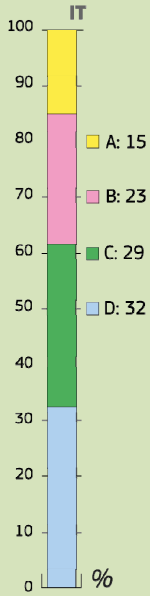
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

ITALY



Name of the academic staff category	Headcounts
A. Junior categories	
Project-funded researcher *Assegnista di ricerca*	*15 909*
B. Intermediate categories	
Temporary academic researcher *Ricercatore universitario a tempo determinato*	*3 565*
Academic researcher (category being phased-out) *Ricercatore universitario a tempo indeterminato*	*21 035*
C. Senior categories	
Associate professor *Professore associato*	*17 541*
Professors *Professore ordinario*	*13 263*
D. Other categories	
Contractual teacher *Docente a contratto*	*34 264*

Share of staff categories



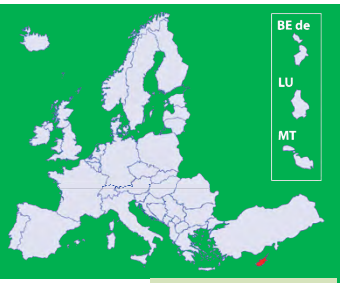
Source: Eurydice, statistics based on MIUR, 2015 (reference year of data: academic year 2014/15).
Note: Diagram covers university academic staff only.

Typical career path:

Project-funded researcher ►Temporary academic researcher ► Associate professor ► Professor

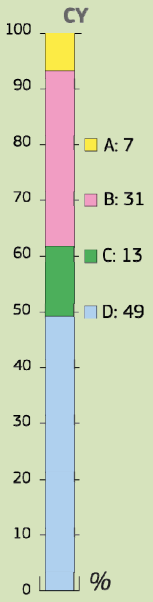
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

CYPRUS



Name of the academic staff category	Headcounts
A. Junior categories	
Lecturer *Λέκτορας (Lectoras)*	*58*
B. Intermediate categories	
Assistant professor *Επίκουρος καθηγητής (Epikouros kathigitis)*	*146*
Associate professor *Αναπληρωτής καθηγητής (Anaplirotis kathigitis)*	*122*
C. Senior categories	
Professor *Καθηγητής (Kathigitis)*	*108*
D. Other categories	
Special teaching staff *Ειδικό εκπαιδευτικό προσωπικό (Eidiko ekpedeutiko prosopiko)*	*109*
Adjunct faculty tutor *Συνεργαζόμενο εκπαιδευτικό προσωπικό (Sunergazomeno ekpedeutiko prosopiko)*	*312*

Share of staff categories



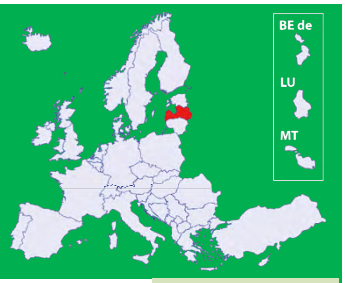
Source: Eurydice, statistics based on unpublished national data, 2015 (reference year of data: academic year 2015/16).

Typical career path:

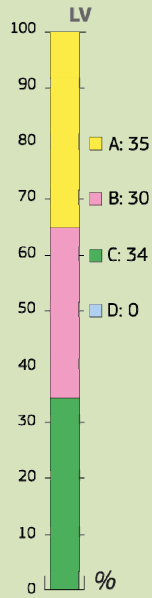
Lecturer ► Assistant professor ► Associate professor ► Professor

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

LATVIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant *Asistents*	*273*
Lecturer *Lektors*	*848*
Researcher *Pētnieks*	*n/a*
B. Intermediate categories	
Assistant professor *Docents*	*974*
Senior researcher *Vadošais pētnieks*	*n/a*
C. Senior categories	
Associate professor *Asociētais profesors*	*504*
Professor *Profesors*	*596*
D. Other categories	



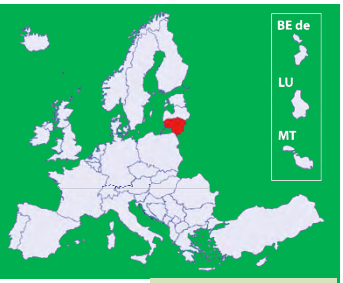
Source: Eurydice, statistics based on IZM, 2016 (reference year of data: academic year 2015/16).

Typical career path:

Assistant ► Lecturer/researcher ► Assistant professor/Senior researcher ► Associate professor ► Professor

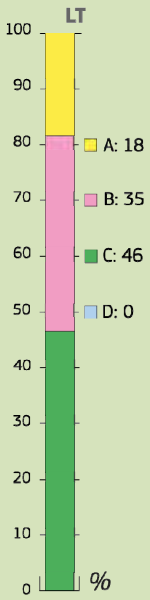
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

LITHUANIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant *Asistentas*	*1 195*
Junior research staff *Jaunesnysis mokslo darbuotojas*	*571*
B. Intermediate categories	
Lecturer *Lektorius*	*3 012*
Research staff *Mokslo darbuotojas*	*361*
C. Senior categories	
Associate professor *Docentas*	*2 552*
Professor *Profesorius*	*1 391*
Senior research staff *Vyresnysis mokslo darbuotojas*	*332*
Chief research staff *Vyriausiasis mokslo darbuotojas*	*176*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on ITC, 2016 (reference year of data: academic year 2015).

Note: Diagram covers university academic staff only.

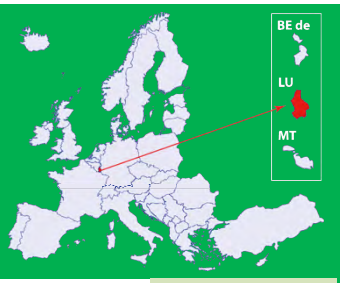
Typical career paths:

Path 1: Assistant ► Lecturer ► Associate professor ► Professor

Path 2: Junior research staffer ► Research staff ► Senior research staff ► Chief research staff

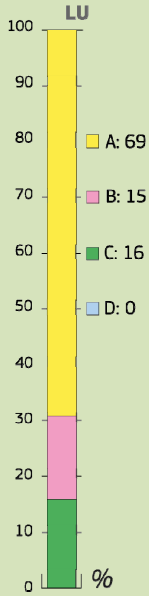
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

LUXEMBOURG



Name of the academic staff category	Headcounts
A. Junior categories	
PhD student *Chercheur en formation doctorale*	*374*
Postdoc *Chercheur en formation postdoctorale*	*48*
Assistant *Assistant*	*28*
Assistant researcher *Assistant-chercheur*	*52*
B. Intermediate categories	
Assistant professor *Assistant-professor*	*70*
Senior research scientist *Chargé de cours*	*38*
C. Senior categories	
Professor *Professeur*	*115*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on University of Luxembourg, 2013 (reference year of data: 2013).

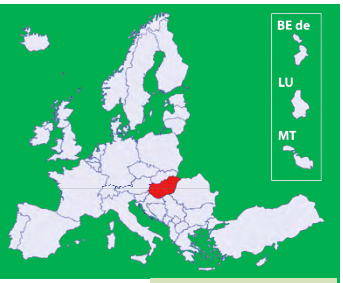
Typical career path:

Phd student ► Postdoc ► Assistant/Assistant researcher ► Assistant professor ► Professor

Teaching — Doctoral degree legally required — Fixed-term contract

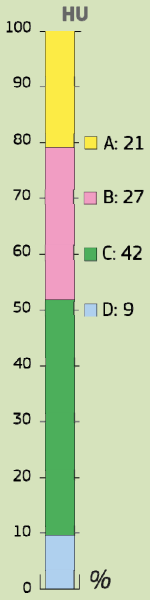
Research — Postdoctoral qualification legally required — Indefinite contract

HUNGARY



Name of the academic staff category	Headcounts
A. Junior categories	
Junior assistant professor *Tanársegéd*	*2 888*
Assistant research fellow *Tudományos segédmunkatárs*	*842*
B. Intermediate categories	
Senior assistant professor *Adjunktus*	*4 170*
Research fellow *Tudományos munkatárs*	*505*
Researcher *Tidományos főmunkatárs*	*215*
C. Senior categories	
Associate professor *Docens*	*5 193*
Professor *Tanár*	*2 361*
Scientific advisor *Tudományos tanácsadó*	*18*
Research professor *Kutató professzor*	*33*
D. Other categories	
Instructor *Tanár*	*1 694*

Share of staff categories



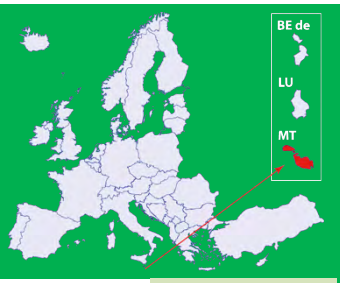
Source: Eurydice, statistics based on FIR-OSAP, 2015 (reference year of data: academic year 2015/16).

Typical career path:

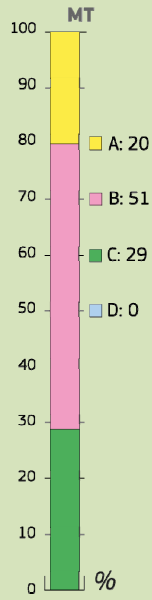
Junior assistant professor ► Senior assistant professor ► Associate professor ► Professor

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

MALTA



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
Assistant lecturer *Assistant lecturer*	*147*	
B. Intermediate categories		
Lecturer *Lecturer*	*175*	
Senior lecturer *Senior lecturer*	*198*	
C. Senior categories		
Associate professor *Associate professor*	*115*	
Professor *Professor*	*94*	
D. Other categories		



Source: Eurydice, statistics based on University of Malta, 2014/15 (reference year of data: academic year 2014/15).

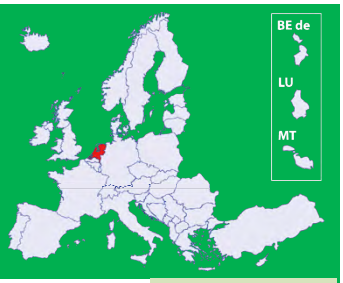
Note: Diagram covers university academic staff only.

Typical career path:

Assistant lecturer ► Lecturer ► Senior lecturer ► Associate professor ► Professor

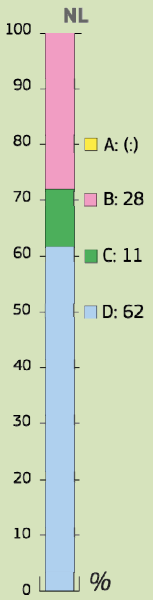
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

THE NETHERLANDS



Name of the academic staff category	Full time equivalents
A. Junior categories	
Student assistant *Student assistent*	*n/a*
B. Intermediate categories	
Lecturer *Universitair docent*	*4 539*
Senior lecturer *Universitair hoofddocent*	*2 097*
C. Senior categories	
Professor *Hoogleraar/professor*	*2 529*
D. Other categories	
PhD *Promovendus*	*8 160*
Other academic staff (post doc, researchers) *Overig wetenschappelijk personeel (post doc, onderzoekers)*	*6 516*

Share of staff categories



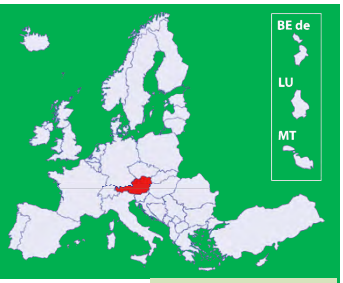
Source: Eurydice, statistics based on VNSU, 2015 (reference year of data: 2014/15).

Typical career path:

Student assistant ► Lecturer ► Senior lecturer ► Professor

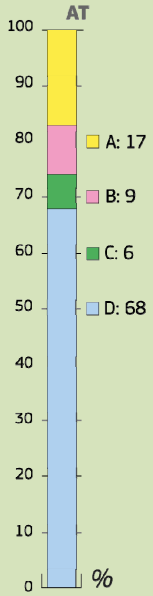
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

AUSTRIA



Name of the academic staff category	Headcounts
A. Junior categories	
University assistant *Universitätsassistent*	*4 855*
Academic staff engaged in research, the arts and teaching (expiring staff category) *Nicht-habilitierter Wissenschaftlicher/ Künstlerischer Mitarbeiter (auslaufende Kategorie)*	*1 890*
B. Intermediate categories	
Assistant professor *Assistenzprofessor*	*628*
Associate professor *Assoziierter Professor*	*614*
Associate professor *Universitätsdozent (Ao. Univ.-Prof.)*	*2 191*
C. Senior categories	
University professor *Universitätsprofessor*	*2 469*
D. Other categories	
Senior scientist/senior artist *Senior Scientist/Senior Artist*	*697*
Senior lecturer *Senior Lecturer*	*942*
Project staff *Projektmitarbeiter*	*9 265*
Lecturer *Lehrbeauftragter*	*9 810*
Teaching assistant *Studentischer Mitarbeiter*	*6 062*

Share of staff categories



Source: Eurydice, statistics based on BMWFW, 2015 (reference year of data: 2015).

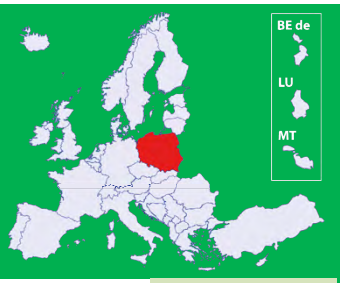
Note: Diagram covers university academic staff only.

Typical career path:

University assistant ► Assistant Professor ► Associate Professor (civil servant) ► University Professor

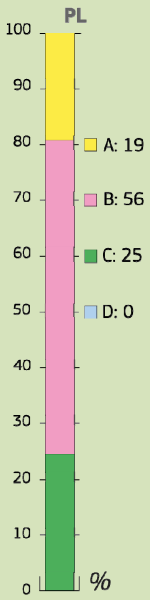
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

POLAND



Name of the academic staff category	Headcounts
A. Junior categories	
Lecturer / *Wykładowca*	*5 031*
Language instructor / *Lektor*	*1 095*
Instructor / *Instruktor*	*761*
Assistant / *Aystent*	*10 762*
B. Intermediate categories	
Senior lecturer / *Starszy wykładowca*	*10 881*
Assistant professor / *Adiunkt*	*40 734*
C. Senior categories	
Associate professor / *Profesor nadzwyczajny*	*14 778*
Professor / *Profesor zwyczajny*	*7 763*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on GUS, 2015 (reference year of data: academic year 2014/15).

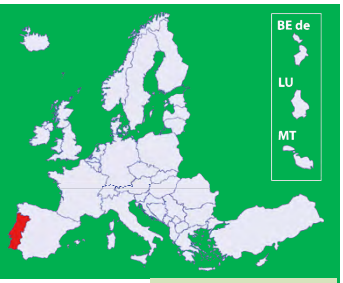
Typical career paths:

Path 1: Language instructor/Instructor ► Lecturer ►Senior lecturer

Path 2: Assistant ► Assistant professor ► Associate professor ► Full professor

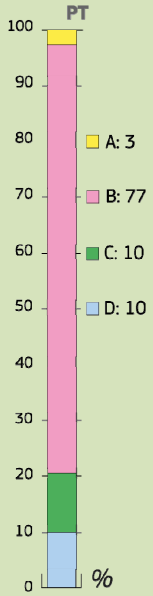
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

PORTUGAL



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant (category being phased-out) *Assistente*	*278*
B. Intermediate categories	
Assistant professor *Professor auxiliar*	*5 963*
Associated professor *Professor associado*	*1 915*
C. Senior categories	
Professor *Professor catedrático*	*1 071*
D. Other categories	
Lectur *Leitor*	*177*
Monitor *Monitor*	*111*
Other teaching staff *Outros docentes*	*740*

Share of staff categories



Source: Eurydice, statistics based on DGEEC, 2015 (reference year of data: academic year 2014/15).

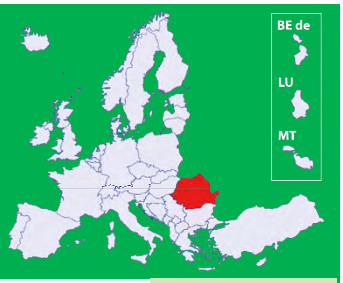
Note: Diagram covers university academic staff only.

Typical career path:

Assistant professor ► Associated professor ► Professor

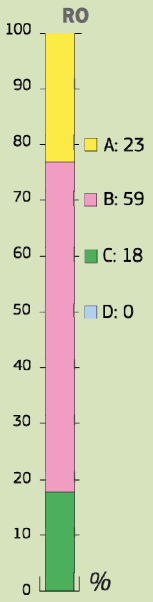
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

ROMANIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant lecturer *Asistent universitar doctorand*	*n/a*
PhD assistant lecturer *Asistent universitar doctor*	*5 319*
B. Intermediate categories	
Lecturer *Lector universitar*	*8 258*
Associate professor *Conferentiar universitar*	*5 299*
C. Senior categories	
Professor *Profesor universitar*	*4 071*
D. Other categories	

Share of staff categories



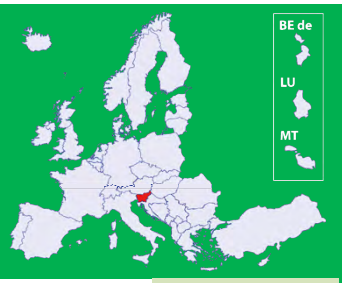
Source: Eurydice, statistics based on CNFIS, 2015 (reference year of data: academic year 2013/14).

Typical career path:

Assistant lecturer ► PhD assistant lecturer ► Lecturer ► Associate professor ► Professor

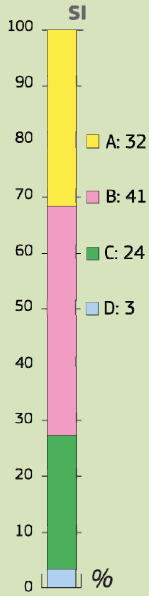
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

SLOVENIA



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant / *Asistent*	*2 288*
B. Intermediate categories	
Lecturer / *Predavatelj*	*327*
Assistant professor / *Docent*	*1 535*
Associate professor / *Izredni profesor*	*1 015*
Research fellow / *Znanstveni sodelavec*	*76*
Senior research fellow / *Višji znanstveni sodelavec*	*19*
C. Senior categories	
Senior lecturer / *Višji predavatelj*	*256*
Professor / *Redni profesor*	*1 442*
Research counsellor / *Znanstveni svetnik*	*29*
D. Other categories	
Language instructor / *Lektor*	*147*
Instructor / *Učitelj veščin*	*93*

Share of staff categories



Source: Eurydice, statistics based on SURS, 2015 (reference year of data: academic year 2014/15).

Note: Diagram covers university academic staff only.

Typical career paths:

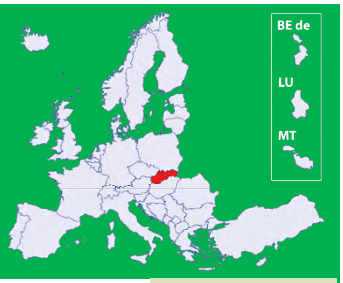
Path 1: Assistant ► Assistant professor ► Associate professor ► Professor

Path 2: Lecturer ► Senior lecturer

Path 3: Research fellow ► Senior research fellow ► Research counsellor

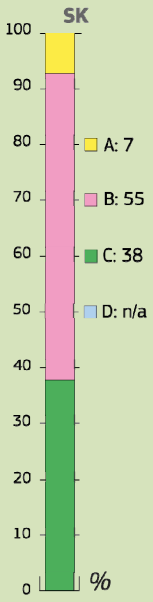
Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

SLOVAKIA



Name of the academic staff category	Headcounts
A. Junior categories	
Lecturer / *Lektor*	*244*
Assistant / *Asistent*	*634*
B. Intermediate categories	
Senior assistant / *Odborný asistent*	*6 655*
C. Senior categories	
Associate professor / *Docent*	*2 823*
Professor / *Profesor*	*1 734*
D. Other categories	
Researcher / *Výskumný pracovník*	*n/a*
Art worker / *Umelecký pracovník*	*n/a*

Share of staff categories



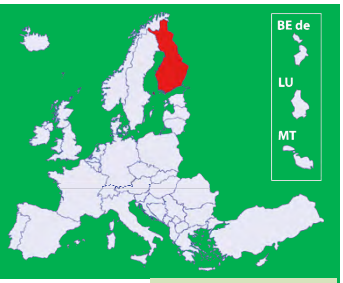
Source: Eurydice, statistics based on CVTI SR, 2015 (reference year of data: academic year 2015/16).

Typical career path:

Assistant ► Senior assistant ► Associate professor ► Professor

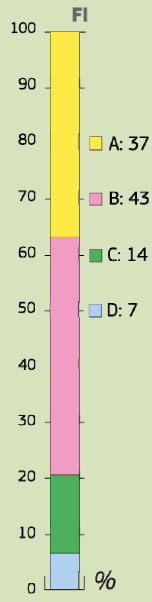
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

FINLAND



Name of the academic staff category	Full time equivalents
A. Junior categories	
First stage researcher *Tutkijanuraporras I*	*6 520*
B. Intermediate categories	
Recognised researcher *Tutkijanuraporras II*	*3 712*
Established researcher *Tutkijanuraporras III*	*3 861*
C. Senior categories	
Leading researcher *Tutkijanuraporras IV*	*2 473*
D. Other categories	
Hourly teaching *Tuntiopettaja*	*1 176*

Share of staff categories



Source: Eurydice, statistics based on Ministry of Education and Culture, 2015 (reference year of data: academic year 2014/15).

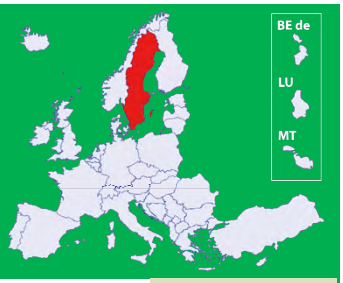
Note: Diagram covers university academic staff only.

Typical career path:

First stage researcher ► Recognised researcher ► Established researcher ► Leading researcher

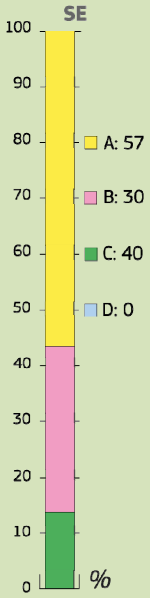
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

SWEDEN



Name of the academic staff category	Headcounts
A. Junior categories	
Other research and teaching staff, without a doctoral degree *Annan forskande och undervisande personal, utan doktorsexamen*	*5 469*
Doctoral student (PhD student, third-cycle student) *Doktorand*	*11 098*
Lecturer *Adjunkt*	*6 425*
Early career academic *Meriteringsanställning*	*3 085*
B. Intermediate categories	
Other research and teaching staff, with a doctoral degree *Annan forskande och undervisande personal, med doktorsexamen*	*4 118*
Senior lecturer *Lektor*	*9 565*
C. Senior categories	
Professor *Professor*	*6 354*
D. Other categories	

Share of staff categories



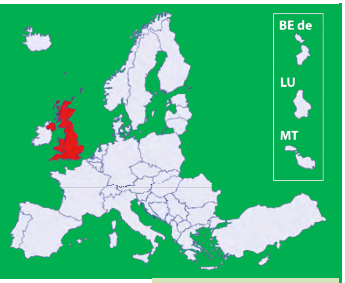
Source: Eurydice, statistics based on The Swedish Higher Education Authority, 2014 (reference year of data: 2014)

Typical career path:

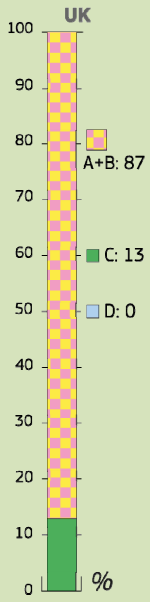
Doctoral student ► Early career academic ► Senior lecturer ► Professor

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

UNITED KINGDOM



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
Teaching assistant / *Teaching assistant*		
Research assistant / *Research assistant*		
B. Intermediate categories		
Teaching fellow / *Teaching fellow*		
Lecturer / *Lecturer*		
Senior lecturer / *Senior lecturer*	*172 800*	
Principal lecturer / *Principal lecturer*		
Research fellow / *Research fellow*		
Senior research fellow / *Senior research fellow*		
Principal research fellow / *Principal research fellow*		
C. Senior categories		
Professor / *Professor*	*19 600*	
Function head / *Function head*		
Head of school / *Head of school*	*5 935*	
Senior management / *Senior management*		
D. Other categories		



Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

(United Kingdom)

Source: Eurydice, statistics based on HESA, 2016 (reference year of data: academic year 2014/15).

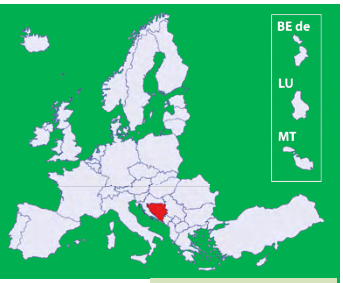
Note: Although England, Wales, Northern Ireland and Scotland have distinctive higher education systems in some respects, they are represented by a single diagram as there are no major differences in academic staff categories. Although two pathways are shown, academics most commonly follow careers which include elements of both teaching and research.

Typical career paths:

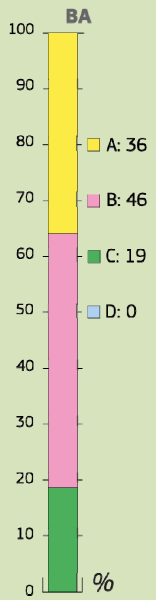
Path 1: Teaching assistant ► Teaching fellow ► Lecturer ► Senior lecturer ► Principal lecturer ► Professor / Function head / Head of school ► Senior management

Path 2: Research assistant ► Research fellow ► Senior research fellow ► Principal research fellow ► Professor / Head of school ► Senior management

BOSNIA AND HERZEGOVINA



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
Assistant *Asistent*	*1243*	
Senior assistant *Viši asistent*	*1735*	
B. Intermediate categories		
Assistant professor *Docent*	*2123*	
Associate professor *Vanredni profesor*	*1651*	
C. Senior categories		
Professor *Redovni profesor*	*1540*	
D. Other categories		
0 *0*	*0*	



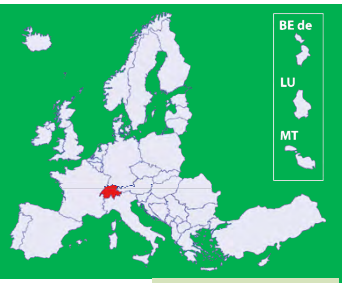
Source: Eurydice, statistics based on FZS, 2015 and RSIS, 2016 (reference year of data: academic year 2014/15).

Typical career path:

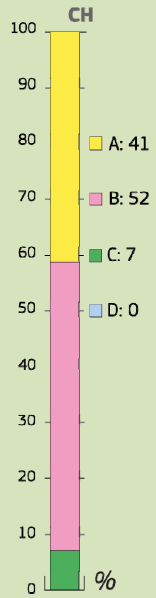
Assistant ► Senior assistant ► Assistant professor ► Associate professor ► Professor

Teaching | Research | Doctoral degree legally required | Postdoctoral qualification legally required | Fixed-term contract | Indefinite contract

SWITZERLAND



Name of the academic staff category	Headcounts	Share of staff categories
A. Junior categories		
Doctoral candidate *Wissenschaftlicher Assistierender mit Masterabschluss oder Äquivalent (Doktorierender)* *Assistant scientifique titulaire d'un diplôme de master ou équivalent (doctorant)*	*23 697*	
B. Intermediate categories		
Postdoctoral researcher *Wissenschaftlicher Assistierender mit Dissertation (Postdoktorierender)* *Assistant scientifique titulaire d'un doctorat (post-doctorant)*	*29 557*	
Senior assistant lecturer *Oberassistierender* *Maître-assistant*		
Senior lecturer *Maître d'enseignement et de recherche*		
C. Senior categories		
Professor *Professor* *Professeur*	*4 088*	
D. Other categories		



Source: Eurydice, statistics based on BFS/OFS, 2015 (reference year of data: academic year 2014/15).

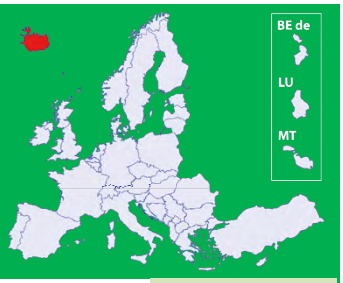
Note: Diagram covers university academic staff only.

Typical career path:

Doctoral candidate ► Postdoctoral researcher ► Senior assistant lecturer / Senior lecturer ► Professor

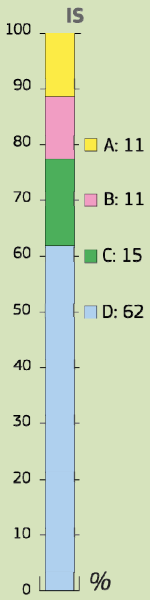
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

ICELAND



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant lecturer / *Aðjúnkt*	*225*
Lecturer / *Lektor*	*250 (estimate)*
B. Intermediate categories	
Senior lecturer / *Dósent*	*221*
C. Senior categories	
Professor / *Prófessor*	*301*
D. Other categories	
Supplementary teachers / *Other teaching staff*	*1 216*
Research specialist / *Sérfræðingur*	*n/a*
Research scholar / *Fræðimaður*	*n/a*
Research scientist / *Vísindmaður*	*n/a*

Share of staff categories



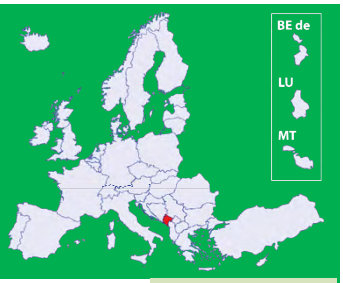
Source: Eurydice, statistics based on Hagstofa Íslands, 2012 (reference year of data: 2012).

Typical career path:

Assistant lecturer ► Lecturer ► Senior lecturer ► Professor

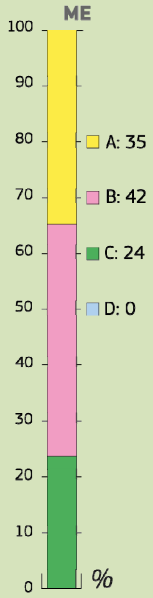
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

MONTENEGRO



Name of the academic staff category	Headcounts
A. Junior categories	
Assistant *Saradnik u nastavi / Stručni saradnik / Saradnik u istraživanju / Asistent*	*336*
B. Intermediate categories	
Assistant professor *Docent*	*223*
Associate professor *Vanredni profesor*	*178*
C. Senior categories	
Professor *Redovni profesor*	*229*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on UCG, 2015 (reference year of data: academic year 2014/15).

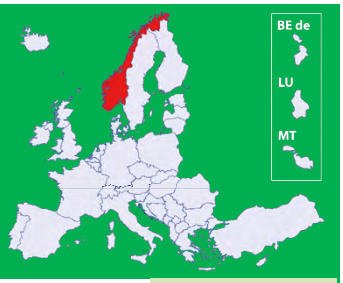
Typical career path:

Assistant ► Assistant professor ► Associate professor ► Professor

Teaching | Doctoral degree legally required | Fixed-term contract

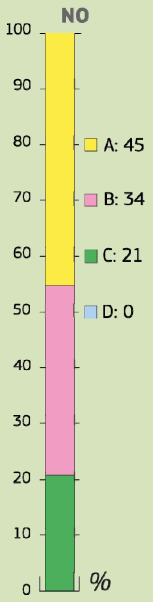
Research | Postdoctoral qualification legally required | Indefinite contract

NORWAY



Name of the academic staff category	Full time equivalents
A. Junior categories	
Lecturer *Høgskolelektor/Universitetslektor*	*3 700*
PhD research fellow *Stipendiat*	*4 600*
B. Intermediate categories	
Postdoctoral fellow *Postdoktor*	*1 400*
Lecturer *Førstelektor*	*940*
Associate professor *Førsteamanuensis*	*3 900*
C. Senior categories	
Docent *Dosent*	*150*
Professor *Professor*	*3 650*
D. Other categories	

Share of staff categories



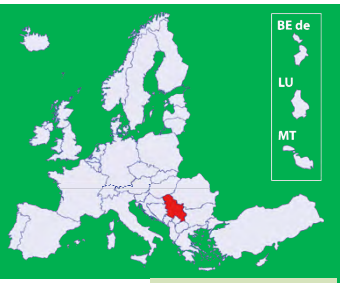
Source: Eurydice, statistics based on DBH, 2015 (reference year of data: academic year 2015/16).

Typical career path:

Lecturer ► Associate professor ► Professor

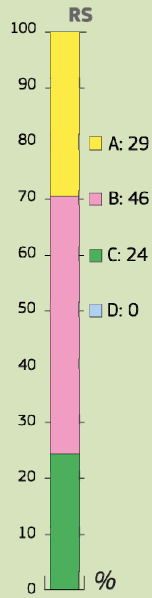
Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

SERBIA



Name of the academic staff category	Headcounts
A. Junior categories	
Teaching assistant *Сарадник у настави (Saradnik u nastavi)*	*509*
Assistant *Асистент (Asistent)*	*2 798*
Research assistant *Истраживач сарадник (Istraživač saradnik)*	*518*
Lecturer *Предавач (Predavač)*	*469*
B. Intermediate categories	
Assistant professor *Доцент (Docent)*	*3 320*
Associate professor *Ванредни професор (Vanredni profesor)*	*2 590*
Professor of applied studies *Професор струковних студија (Profesor strukovnih studija)*	*819*
C. Senior categories	
Professor *Редовни професор (Redovni profesor)*	*3 540*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on MESTD, 2016 (reference year of data: academic year 2015/16).

Typical career path:

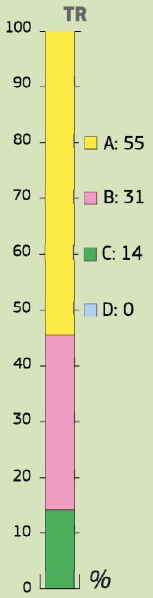
Assistant ► Assistant professor ► Associate professor ► Professor

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

TURKEY

Name of the academic staff category	Full-time equivalents
A. Junior categories	
Research assistant *Araştırma Görevlisi*	*41 362*
Lecturer *Öğretim Görevlisi*	*18 278*
Instructor *Okutman*	*9 505*
Specialist *Uzman*	*3 475*
B. Intermediate categories	
Assistant professor *Yardımcı Doçent*	*29 614*
Associate professor *Doçent*	*11 831*
C. Senior categories	
Professor *Profesör*	*18 985*
D. Other categories	

Share of staff categories



Source: Eurydice, statistics based on YOK, 2014 (reference year of data: academic year 2013/14).

Typical career path:

Research assistant / Lecturer / Instructor ► Assistant professor ► Associate professor ► Professor

Teaching
Research
Doctoral degree legally required
Postdoctoral qualification legally required
Fixed-term contract
Indefinite contract

Sources of statistical data included in national diagrams

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Annex 2: Examples of large-scale programmes for academic staff mobility

This Annex contains several country examples of large-scale programmes to facilitate outgoing and incoming staff mobility. These examples include information about the targeted staff categories, latest statistics on participation rates and types of financial support that are provided by the top-level authorities (including co-financing for EU-funded programmes).

Further information on large-scale mobility programmes for academic staff is available in the Eurydice descriptions of national education systems ([1]).

Belgium (French Community)

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
JSPS (Japan postdoctoral fellowship for foreign researchers) ([2])	Post-doctoral researchers from the French Community	2 each year	Grants for up to 2 years for research activities under the supervision of a Japanese academic
European Centre for Theoretical Physics postdoctoral contracts ([3])	Early stage post-doctoral researchers		2-year post-doctoral contracts
Wallonie-Bruxelles International postdoctoral fellowships (WBI.World) ([4])	Post-doctoral researchers from the French Community	48 in 2015 (9 short term projects and 39 long term projects)	Up to 2 year fellowship (1 200 € per month) and one return trip
'Scientific missions'	Staff with a stable position in a university of the French Community	37 in 2016-2017	12 months max. Monthly fixed allowance of 3 100 € for the outgoing scheme.
ERASMUS+	Staff mobility for teaching/training: staff travelling to a Programme or Partner Country HEI	2014: 210 teaching missions and 180 training missions	
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
'Ulysse Mobility' instrument ([5])	Highly qualified researchers who have been living abroad for at least five years.	1 in 2016	Employment contract of max three years (followed, under certain conditions, by a permanent recruitment) with a budget of max 200 000 € per year.
Incoming postdoctoral fellowships (In Wallonie-Bruxelles International)	Post-doctoral researchers from outside the French Community	25 in 2016 (8 short term projects and 17 long term projects)	1 year fellowship (renewable once). Monthly amount 1 200 € and one return trip.
Incoming sabbatical leaves ('scientific missions')	Staff with a stable position in a foreign university	51 in 2016-2017	12 months max. Monthly fixed allowance of 2 500 € for the incoming scheme.
Programme 'Attract brains for Brussels' run by the region Bruxelles-Capitale ([6])	Expatriate Belgian researchers or foreign scientists coming to Brussels to work in a Brussels university or university college.	5 in 2016	Monthly salary/scholarship; logistical support for the research project of max 25 000 € per month, administrative costs linked to the project of max 25 000 € per month and others.

([1]) European commission/EACEA/Eurydice, 2015. *Mobility and Internationalisation* https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Mobility_and_Internationalisation

([2]) http://www.jsps.go.jp/english/e-fellow/long_list.html; http://www.frs-fnrs.be/en/index.php/international/careers/in-out-posts

([3]) http://www.frs-fnrs.be/en/index.php/international/careers/in-out-posts

([4]) http://www.wbi.be/fr/WBI-WORLD#.VxT549SLTIU

([5]) Funded by F.R.S.-FNRS (research funding agency of the French Community).

([6]) http://www.innoviris.be/fr/soutien-financier-aux-organismes-de-recherche/programmes-bruxellois/attract-brains-for-brussels

Germany

OUTGOING MOBILITY			
Programme ([7])	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year) ([8])	**Financial support** (e.g. salary, grants, insurance, etc.)
German Foreign Exchange Service (DAAD)	All categories with a strong focus on junior staff with PhD; German and foreign academic staff and researchers living in Germany at the time of application	11 269 participants in 2014	Varous funding schemes
German Research Foundation (DFG)	All categories of academic staff and researchers	2 002 participants in 2014	Various funding schemes
EU Marie Sklodowska-Curie Actions	All categories of academic staff and researchers	1 124 participants in 2014	Various funding schemes
Other programmes	All categories of academic staff and researchers	1 541 in 2014	
INCOMING MOBILITY			
Programme ([9])	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
German Foreign Exchange Service (DAAD)	All categories with a strong focus on junior staff with PhD; German and foreign academic staff and researchers living abroad at the time of application	18 527 participants in 2014	Various funding schemes
German Research Foundation (DFG)	All categories of academic staff and researchers	9 846 participants in 2014	Various funding schemes
Humbolt Foundation	All categories of academic staff and researchers	1 956 participants in 2014	Various funding schemes
EU Marie Sklodowska-Curie Actions	All categories of academic staff and researchers	1 874 participants in 2014	Various funding schemes
Other programmes	All categories of academic staff and researchers	1 346 participants in 2014	Various funding schemes
Hermann von Helmholtz Gemeinschaft	All categories of academic staff and researchers	8 523 Wissenschaft weltoffen, reference year 2013	Various funding schemes

([7]) http://www.wissenschaftweltoffen.de/daten/6/1/1?lang=en

([8]) Statistics are collected by the German Foreign Exchange Service and German Centre for Higher Education Research and Science Studies. http://www.wissenschaftweltoffen.de/index_html?lang=en

([9]) http://www.wissenschaftweltoffen.de/daten/6/5/1?lang=en

Spain

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
Stays and transfers within the university teacher training sub-programme ([10])	Training research staff	550 short stays in Spain and abroad and 30 temporary transfers abroad for 2015	Short stays: daily allowance of max 60 € and travel allowance. Temporary transfer: Grant of max 1 500 € per month, as a supplement to the aid of the Sub-Programme and travel allowance.
Mobility of senior teaching and research staff, including Salvador Madariaga Programme	Senior academic staff	Up to 400 mobility stays in 2015	Grant of max 3 100 € per month and travel and installation allowances
José Castillejo stays abroad	Academic staff who have recently completed PhD	Up to 260 stays in 2015	Grant of max 3 100 € per month and travel and installation allowances
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
Juan de la Cierva-Incorporation assistance for contracts	Junior staff categories with PhD	Up to 225 participants in 2015	Contract for two years. 25 000 €
Ramón y Cajal assistance for contracts	Intermediate or senior staff	Up to 175 participants in 2015	Financial awards of 33 720 € per year. Aditional support for research costs 40 000 € over four years.
Assistance to promote permanent contracts for lecturers	Intermediate or senior staff	Up to 13 participants in 2015	Financial award of 10 000 € per permanent contract

([10]) See the National Sub-programme for mobility Spanish National Plan for Scientific And Technical Research And Innovation 2013-2016

Lithuania

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
Additional funding for EU Erasmus+ ([11])	All categories of academic staff	801 staff visits (out of total 1 723 staff visits under Erasmus+) funded from National Funding in 2014/15 academic year	National Funding from Lithuanian State Budget (in total 742 000 € in 2014/15 academic year) Grants only for subsistence and travel costs (average 925 € per visit) Short term visits (up to 2 weeks)
State Scholarship Programme([12])	All categories of academic staff and researchers	32 visits funded from National Funding in 2015/16 academic year	National Funding from Lithuanian State Budget (in total 56 245 € in 2015/16 academic year) Grant types: 1. scholarships plus travel costs – average 3 025 € per visit 2. only travel costs (in case the scholarship is provided by the host country) – average 120 € per visit Visits from 1 month up to 5 months
Academic or research visits funded by Lithuanian Research Council ([12])	All categories of academic staff and researchers and doctoral students	During the period 2009-2015 – 1 337 research visits in total were funded (340 visits in the 2015/16 academic year)	National Funding from Lithuanian State Budget (period 2009-2015) EU Structural Funds (from 2016) Grant types: 1.Subsistence and travel costs 2.Visa, insurance costs 3. event registration fee 4. research expedition costs Amount of support: During the period 2009-2015 – 1,1 million € (402 674 € in the 2015/16 academic year)
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** ([13]) (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
Lithuanian state scholarships programme ([14])	All categories of academic staff and researchers	20 visits in academic year 2015/16	National Funding from Lithuanian State Budget (Around 40 thousand € in 2015/16 academic year) Grant types: monthly scholarships (average – 600 € per month) Amount of support: Visits from 1 month up to 10 months
National funding for higher education institutions for incoming high-level professors and lecturers from abroad ([15])	All categories of academic staff and researchers	80-90 visits annually	National Funding from Lithuanian State Budget (around 185 000 € per year) Salary, subsistence costs and travel costs (average 2 250 € per visit) Short term visits (1-3 weeks)
Support for short-term teaching or research visits funded by the Lithuanian Research Council ([16])	All categories of researchers	10 visits in 2015	EU Structural Funds (2009-2015) Subsistence and travel costs Amount of support: Average – 1 310 € per teaching visit and 2 560 € per research visit

([11]) http://www.smpf.lt/en/programmes-we-administer

([12]) http://www.lmt.lt/en/rnd/other.html

([13]) Research and Higher Education Monitoring and Analysis Centre (MOSTA) http://www.mosta.lt/lt/stebesena/lietuvos-svietimas-skaiciais-studijos http://www.mosta.lt/en/reports-and-publications

([14]) www.scholarships.lt

([15]) www.smpf.lt

([16]) http://www.lmt.lt/en/rnd/other/visits.html

Austria

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year) ([17])	**Financial support** (e.g. salary, grants, insurance, etc.)
AKTION ([18])	Postgraduates PhD-Holders Scientists	Academic year 2014/15: 4 recipients	Grant of max.1500€/month
CEEPUS ([19])	Postgraduates PhD-Holders Scientists	Academic year 2014/15: 87 recipients	Mobility allowance 200 €/month (min. stay 2 months); travel cost subsidy
ERASMUS+	Staff mobility for teaching/training: staff working in a Programme or Partner Country HEI	Academic year 2014/15: About 870 persons with teaching periods About 428 persons with training periods (provisional data)	Grant including contribution to the travel costs and costs directly linked to the subsistence of participants during the activity
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** ([20]) (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
AKTION	Postgraduates PhD-Holders Scientists	Academic year 2014/15: 43 recipients	Grant of max. 1 200 €
CEEPUS	Postgraduates PhD-Holders Scientists	Academic year 2014/15: 123 recipients	Grant of max. 1 040 €/month
Mach/Werfel/Plaschka ([21])	Postgraduates PhD-Holders Scientists	Academic year 2014/15: 32 recipients	Grant of max. 1 040 €/month Plaschka/Werfel:93 € book allowance/month Onetime mobility allowance max. 730 € for recipients from non-European developing countries

([17]) Statistics are collected by the Austrian Agency for International Cooperation in Education and Research.

([18]) Participating countries: Austria, Czech Republic, Slovakia, Hungary

([19]) Central European Exchange Programme for University Studies

([20]) Research and Higher Education Monitoring and Analysis Centre (MOSTA) http://www.mosta.lt/lt/stebesena/lietuvos-svietimas-skaiciais-studijos http://www.mosta.lt/en/reports-and-publications

([21]) Ernst Mach Grant/Franz Werfel Fellowship/ Richard Plaschka Grant

Slovakia

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year) ([22])	**Financial support** (e.g. salary, grants, insurance, etc.)
Academic mobility	All	8 approved applicants in 2015	Travel grant
National scholarship program of the SR	All	32 approved applicants in academic year 2015/16	Travel grant
CEEPUS	All	208 approved mobilities in academic year 2014/15	Reimbursement of travel expenses by CEEPUS/Slovakia. Scholarships for covering the cost of living are provided by the host country.
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
National scholarship program of the SR	All	121 recipients in 2015	Grant of € 900 on average to cover living expenses and administrative costs.
CEPUS	All	252 recipients in 2015	Grant of € 470 to living expenses. Travel expenses are paid by the country of origin.
Academic mobility	All	24 recipients in 2015/16	Type and amount of support depends on conditions of bilateral agreement.

([22]) Statistics collected by the Slovak Academic Information Agency (SAIA). http://www.saia.sk/
SAIA is responsible only for the selection of applicants in Slovakia. The completion of stays is monitored by the host country offices.

Sweden

OUTGOING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year) ([23])	**Financial support** (e.g. salary, grants, insurance, etc.)
Erasmus+	All	485 participants in academic year 2014/15 462 participants in academic year 2015/16 – preliminary data	Total amount of support: 558,342 € for 2014/15 (travel and grant)
Nordplus Higher Education ([24])	All	127 participants in 2013	Travel and subsistence grants. Eligible activities: development of teaching materials, teaching, tutoring, work placement/cooperation with the labour market. Amount of support: Data not available.
Linnaeus Palme ([25])	All	408 participants in 2015/16 ([26])	Flat-rate/lump sum. Eligible costs: travel, subsistence, insurance, visa, vaccination, language and cultural preparation, additional administrative costs. Total amount of support: 8 546,256 SEK (2015/16)
INCOMING MOBILITY			
Programme	**Categories of eligible academic staff**	**Participation in absolute numbers** (for most recent available year)	**Financial support** (e.g. salary, grants, insurance, etc.)
Erasmus+	All	474 participants in academic year 2014/15 430 participants in academic year 2015/16 (preliminary figures)	Total amount of support: 446,893 € (travel and grant) for 2014/15.
Nordplus Higher Education	All	132 participants in 2013	Travel and subsistence. Eligible activities: development of teaching materials, teaching, tutoring, work placement/cooperation with the labour market. Amount of support: Data not available.
Linnaeus Palme	All	400 (2015/16) ([27])	Flat-rate/lump sum (eligible costs: travel, subsistence, insurance, visa, vaccination, language and cultural preparation, additional administrative costs). Total amount of support: 11,561,588 SEK (2015/16)

([23]) Statistics for Erasmus+ and Linnaeus Palme are collected by the Swedish Council for Higher Education (*Universitets- och högskolerådet,* UHR), www.uhr.se. Statistics for Nordplus Higher Education are collected by the Centre for International Mobility (CIMO), Finland, www.cimo.fi.

([24]) The programme is financed by the Nordic Council of Ministers. It offers financial support for educational cooperation between partners from the eight participating countries in the Baltic and Nordic regions: Sweden, Denmark, Norway, Finland, Iceland, Estonia, Latvia, Lithuania. http://www.nordplusonline.org/

([25]) The programme is financed by the Swedish International Development Cooperation Agency (SIDA) and administered by the Swedish Council for Higher Education.

([26]) Includes 26 preparatory language course mobilities made by staff who also participate in exchange mobility, i.e. these individuals are counted twice.

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GLOSSARY

Central level/Central-level authorities: see → **Top level/Top-level authorities**

Civil servant: Refers to staff employed by the public authority/administration, usually following an open competition. The employment/appointment is in accordance with legislation regulating the functioning of public administrations, distinct from the one governing contractual relations in the public or private sector. In some countries, academic staff may be appointed with the expectation of a lifelong career as career civil servants. Usually, mobility from one institution to another does not affect the contractual status. Common synonyms: 'public official', 'official', 'functionary'.

Commonly agreed criteria (external quality assurance): Refers to criteria which are explicit, apply to more than one programme or institution and are published before a quality assurance evaluation.

Continuing professional development (CPD): Refers to formal and non-formal professional development activities, which may, for example, include subject-based and pedagogical training. In certain cases, these activities may lead to further qualifications.

Contractual conditions: Refers to the type of contract (see → 'Fixed-term contract'; → 'Indefinite contract').

Equal opportunities: Policies and practices in employment and other areas that do not discriminate against persons on the basis of race, colour, age, sex, national origin, religion, or mental or physical disability.

Externally funded positions: Refers to academic staff positions that are based on third-party/project funding rather than regular institutional/state funding. These positions are generally related to fixed-term contracts (see → 'Type of contract'). Working in an externally funded position can be seen as an alternative to a regular higher education position.

Fixed-term contract: Refers to a contract that expires at the end of the period specified.

Habilitation: Refers to an advanced academic qualification that may be the minimum requirement for a particular staff category, role or position. It does not give access to a concrete position within an institution, but may be necessary for being recruited or progress through one's career to that position. It is usually organised through a formal and structured evaluation of achievements and experiences, but it is not based on open competitions or other competitive testing. The *habiltation* usually includes a specific dissertation/thesis (with or without other elements).

Higher education institutions (scope of the report): Officially recognised public or publicly-subsidised private higher education institutions (i.e. private higher education institutions receiving 50 % or more of core funding from public sources) provided for under the legislation of the country concerned. They are defined as distinct entities/organisations which are nationally recognised as higher education institutions and for which education at ISCED 2011 level 5, 6, 7 and/or 8 is a major activity and constitutive part of their mission. Following the above definition, the **report excludes**:

- independent private higher education institutions;
- research institutions whose principal mandate is performing research and development (R&D);
- entities/organisations not regarded as higher education institutions, offering a range of education/training or other services alongside higher education programmes (e.g. secondary schools providing programmes situated at ISCED 2011 level 5 as one of their activities, tertiary professional schools formally connected to secondary schools, etc.).

Among institutions falling under the definition of 'higher education institutions', three types are distinguished: 'universities' (see → 'Universities'), 'universities of applied sciences' (see → 'Universities of applied sciences') and 'other higher education institutions' (see → 'Other higher education institutions').

Indefinite contract: Refers to a contract for an indefinite period of time. This concept includes permanent contracts as well as contracts without permanent guarantee, but with no predefined term.

ISCED (International Standard Classification of Education): The International Standard Classification of Education (ISCED) is an instrument suitable for compiling statistics on education internationally. It covers two cross-classification variables: levels and fields of education with the complementary dimensions of general/vocational/pre-vocational orientation and education-labour market destination. The last version, ISCED 2011 distinguishes eight levels of education. For the full details on each ISCED level, see: UNESCO-UIS (2012).

Joint international programme: Study programmes that are developed and implemented jointly by several institutions in different countries, and leading to a joint degree. Parts of joint programmes undertaken by students at partner institutions are recognised automatically by the other partner institutions.

Large-scale programmes/actions: Refers to programmes/actions that operate throughout the whole country or a significant geographical area rather than being restricted to a particular institution or geographical location. These programmes/actions are intended as a long-term element of the system with resources planned to cover several consecutive years (as opposed to initiatives with short-term project-based funding covering only one or two years).

Massive Open Online Course (MOOC): Refers to an online course aimed at unlimited participation and open access via the internet.

Open competition: A recruitment method usually steered by the top-level authority competent in the area, e.g. the educational authority is involved in publishing the posts, criteria, and/or selection modalities and most times (but not necessarily) the process leads to civil servant positions. It is sometimes also referred to as 'national competition'.

Other higher education institutions (HEIs): All institutions that do not fit the description of universities (see → 'Universities') or universities of applied sciences (see → 'Universities of applied sciences') are categorized as 'other HEIs'. This might apply to institutions like art academies, military schools; also technological and professional schools in countries without a binary system ([1]) (adapted from Lepori et al., 2015, p. 32).

Performance appraisal: A structured evaluation of the work of academic staff by comparing it with present standards and delivering a feedback to guide improvement. It can include one or many appraisal methods, such as: self-evaluation and supervisor reports, students' evaluations, structured appraisal of teaching, research and other activities, etc.

Performance-related pay: A financial reward system for employees where some or all of their monetary compensation is related to how their performance is assessed relative to stated criteria.

PhD/doctoral candidates: Refers to those following programmes at ISCED 2011 level 8, known as doctoral or equivalent level.

([1]) A binary system is one that has higher education taught in at least two different types of institution, traditional (academic) universities alongside more vocationally-oriented institutions.

Postdoctoral qualification: Refers either to *'habilitation'* or to top-level accreditation of academic achievements (see → *'Habilitation'*; → 'Top-level accreditation of academic achievements').

Public vacancy: A recruitment method usually governed by the institution recruiting, e.g. the institution publishes the post and establishes all or some parts of the selection criteria and process. Requirements are also established by the institutions, although there might be some qualifications established by the top-level authority. The process usually leads to an employee contract.

Quality assurance: Continuous process of evaluating (assessing, monitoring and improving) the quality of a higher education system, institution or programme.

Recommendation: Non-statutory guidelines which are of an advisory nature, issued by the top-level education authorities.

Recruitment: A process aimed at filling a job vacancy by selection of candidates. It is usually linked to a specific position and can also enable the candidate to access a higher academic category. The type of contract at stake is irrelevant to the definition (i.e. can be indefinite or fixed length).

Recruitment method: The approach followed for recruitment (e.g. open competition, public vacancy, restricted call, direct call, use of list of suitable candidates, etc.).

Regulation: A law, decree or any other officially binding document, issued by top-level education authorities (see → 'Top level/Top-level authorities').

Sabbatical leave: Refers to a leave that provides the opportunity for academic staff to dedicate a certain period of time to specific activities (rather than to all their usual duties). Commonly, sabbaticals focus on research, but may also concentrate on other activities, such as professional development or teaching at another institution.

Stakeholders: Actors that have a vested interest in the function, practices and outcomes of higher education institutions (see → 'Higher education institutions'). These may include representatives of central, regional or local government, employer associations or other representatives from industry, members of labour unions, national student associations, representatives of civic society, graduates, parents of students, etc.

Steering documents: Official documents that define the basic framework for the functioning of public higher education institutions. Several types of steering documents with different degrees of flexibility in their application can exist for the same level of education.

Strategy/Strategic plan: Refers to a plan or method of approach developed typically by the national/regional government, in an effort to achieve successfully an overall goal or objective. A strategy does not necessarily specify concrete actions. Strategic plan refers to a document that sets out the mission and strategic aims of a higher education institution and links these aims to detailed objectives and activities for a period of variable length.

Top-level accreditation of academic achievements: Refers to a formal, structured and centrally coordinated evaluation of academic achievements and experiences. It does not give access to a concrete position within an institution, but may be necessary for being recruited or progress through one's career to that position. Contrary to the *habilitation* (see → *'Habilitation'*), the top-level accreditation does not include a specific dissertation/thesis and may include some elements of competition.

Top level/Top-level authorities: The top level of authority with responsibility for education in a given country, usually located at national (state) level. However, for Belgium, Germany, Spain and the United Kingdom, the *Communautés*, *Länder*, *Comunidades Autónomas* and devolved administrations respectively are responsible for all or most areas relating to education. Therefore, these administrations are considered as the top-level authority for the areas where they hold the responsibility, while for the ones for which they share the responsibility with the national (state) level, both are considered to be top-level authorities.

Type of contract: See → 'Fixed-term contract'; → 'Indefinite contract'.

Universities: These higher education institutions display a largely academic orientation (without excluding some focus on applied research), have the right to award doctorates and can bear the full name of 'University' (including variants like technological university, etc.). In general, awarding doctorates should be the main criterion to classify HEIs in this category (adapted from Lepori et al., 2015, p. 32).

Universities of applied sciences: These institutions are officially recognized as a part of higher education, though not as universities (see → 'Universities'). Commonly, these institutions have a focus on professional education. In most cases, they do not have the right to award doctorates (exceptions are possible). National names are for example *Fachhochschule* (Austria, Germany), *Hogescholen* (the Netherlands), *colleges* (Norway), *Polytechnics* (Finland). This institutional category applies strictly only to countries that have a binary HE system ([2]), where these institutions are given a specific legal status. Examples include Norway, Switzerland and the Netherlands (adapted from Lepori et al., 2015, p. 32).

([2]) A binary system is one that has higher education taught in at least two different types of institution, traditional (academic) universities alongside more vocationally-oriented institutions.

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Education and Youth Policy Analysis

Avenue du Bourget 1 (J-70 – Unit A7)
B-1049 Brussels
(http://ec.europa.eu/eurydice)

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ENQA

http://www.enqa.eu/

Belgium – French Community

Agence pour l'évaluation de la qualité de l'enseignement supérieur (AEQES)

http://www.aeqes.be/

Belgium – Flemish Community

Accreditation Organisation of the Netherlands and Flanders (NVAO)

https://www.nvao.com/

Bulgaria

National Evaluation and Accreditation Agency (NEAA)

http://www.neaa.government.bg

Croatia

Agency for Science and Higher Education

https://www.azvo.hr/en/

Czech Republic

National Accreditation Bureau for Higher Education (NAB)

https://www.nauvs.cz/en/

Finland

Finnish Education Evaluation Centre (FINEEC)

https://karvi.fi

France

High Council for the Evaluation of Research and Higher Education (HCERES)

http://www.hceres.fr/

Commission des Titres d'Ingénieur (CTI)

https://www.cti-commission.fr/

Germany

FIBAA (European, internationally oriented agency for quality assurance and quality development in higher education).

http://www.fibaa.org/en/welcome-page.html

Lithuania

Centre for Quality Assessment in Higher Education (SKVC)

http://www.skvc.lt/

Netherlands

Accreditation Organisation of the Netherlands and Flanders (NVAO)

https://www.nvao.com/

Norway

Norwegian Agency for Quality Assurance in Education (NOKUT)

http://www.nokut.no/

Portugal

Agency for Evaluation and Accreditation of Higher Education (A3ES)

http://www.a3es.pt/

Romania

Romanian Agency for Quality Assurance in Higher Education (ARACIS)

http://www.aracis.ro/

Spain

Fundación para el Conocimiento Madrimasd

http://www.madrimasd.org/

The National agency for Quality Assurance and Accreditation of Spain (ANECA)

http://www.aneca.es/eng/ANECA

Agencia Andaluza del Conocimiento (AAC-DEVA)

http://deva.aac.es/

Agency for Quality Assurance in the Galician University System National Evaluation and Accreditation Agency (ACSUG)

http://www.acsug.es

United Kingdom

Quality Assurance Agency for Higher Education (QAA)

http://www.qaa.ac.uk/en

Education International academic staff trade unions members

Education international

https://ei-ie.org/en/

Denmark

Dansk Magisterforening

https://www.dm.dk/

Estonia

Universitas

http://universitas.ee/en/

Finland

Finnish Union of University Researchers and Teachers (FUURT)

https://tieteentekijoidenliitto.fi/en/membership/welcome_to_the_union

France

Syndicat National des Chercheurs Scientifiques SNCS-FSU

http://sncs.fr/

Germany

Gewerkschaft Erziehung und Wissenschaft (GEW) - (German Trade Union for Education and Research)

https://www.gew.de/

Ireland

Teachers' Union of Ireland

http://www.tui.ie/

Italy

Federazione Lavoratori della Conoscenza Flc Cgil

http://www.flcgil.it

Latvia

Latvian Trade Union of Education and Science Employees

http://www.lizda.lv/en/about-us

Lithuania

Association of Lithuanian Trade Unions of Higher Education (ALTUHE/FLESTU)

http://www.lpsk.lt/en/

Norway

Norwegian Association of researchers

https://www.forskerforbundet.no/english/

Portugal

Federação Nacional dos Professores (FENPROF)

http://www.fenprof.pt/

Poland

ZNP – KSN NSZZ 'Solidarność'

http://www.solidarnosc.org.pl/ksn/pl/

Romania

Federaţia Naţională Sindicală (FNS) Alma Mater

http://www.almamater.ro

Slovakia

University of Zilina, Slovakia

Sweden

Swedish Association of University Teachers and Researchers (SULF)

https://sulf.se/en/

United Kingdom

University and College Union

https://www.ucu.org.uk/

EC-01-17-491-EN-N

Modernisation of Higher Education in Europe: Academic Staff – 2017

The report *Modernisation of Higher Education in Europe: Academic Staff – 2017* explores the current realities for academic staff within the changing higher education landscape in Europe. It focuses on the qualification requirements for academic staff, the recruitment process, employment and working conditions in academia, the impact of external quality assurance, and top level strategies for internationalisation. It also includes national diagrams showing key characteristics of academic staff categories.

The report is based mainly on qualitative data gathered by the Eurydice Network, covering higher education systems in 35 countries. The data collection focused on academic higher education staff who are primarily responsible for teaching and/or research. In addition, quantitative data from Eurostat and the European Education Tertiary Register (ETER) are also used, as well as information gathered from surveys developed for this report to academic staff Trade Unions and Quality Assurance agencies.

The Eurydice Network's task is to understand and explain how Europe's different education systems are organised and how they work. The network provides descriptions of national education systems, comparative studies devoted to specific topics, indicators and statistics. All Eurydice publications are available free of charge on the Eurydice website or in print upon request. Through its work, Eurydice aims to promote understanding, cooperation, trust and mobility at European and international levels. The network consists of national units located in European countries and is co-ordinated by the EU Education, Audiovisual and Culture Executive Agency. For more information about Eurydice, see http://ec.europa.eu/eurydice.

Publications Office

ISBN 978-92-9492-510-7