



Erasmus+



GRADUATE

SPIRIT

Graduate School Program for International
Researchers and Interdisciplinary Training
(Graduate SPIRIT)

IO 1 Inventory

Report by

Martina Keilbach, Fabio Marcodoppido, Matthias Middell, Jacques Pothier, Saskia
Steszewski

Leipzig, Paris-Saclay 2018

Table of contents

1. Introduction.....	1
2. Basic information.....	3
2.1. Participating institutions	3
2.2. Distribution of candidates	5
2.3. Academic setting.....	7
2.4. Disciplines	11
2.5. Foundation history.....	13
3. Organization.....	16
3.1. Budget.....	16
3.2. Administration.....	17
3.3. Assessment	19
3.4. Networks and international partnerships of the graduate schools.....	20
4. Doctoral candidates.....	22
4.1. Potential candidates	22
4.2. Recruitment, application process, and selection.....	22
4.3. Funding.....	28
4.4. Internationalization	30
4.5. Intersectorality	33
5. Course of the doctorate	36
5.1. Supervision.....	36
5.2. Supervision agreement	38
5.3. Curriculum.....	41
5.4. Doctorate requirements	45
6. Academic staff.....	49
6.1. Incentives for engagement.....	49
6.2. Triple-I incentives.....	50
7. Concluding remarks	52
Bibliography	54

List of Figures and Tables

Figures

Figure 1: Total number of doctoral candidates..... 5
Figure 2: Share of international doctoral candidates 6
Figure 3: Gender distribution 7
Figure 4: Number of graduate schools per discipline 12

Tables

Table 1: Overview of participating institutions..... 3
Table 2: Programmes within graduate schools 9
Table 3: Administrative staff17

List of Abbreviations

CEU Budapest	Central European University
DC Loughborough	Loughborough Doctoral College
DSPS Budapest	Doctoral School in Political Science, Public Policy and International Relations
ED SHS Paris-Saclay	L'Ecole doctorale "Sciences de l'Homme et de la Société"
EGSH Rotterdam Humanities	Erasmus Graduate School of Social Sciences and the Humanities
EHEA	European Higher Education Area
ERA	European Research Area
EU	European Union
EUR Rotterdam	Erasmus Universiteit Rotterdam
Graduate SPIRIT	Graduate School Program for International Researchers and Interdisciplinary Training
GSGAS Leipzig	Graduate School Global and Area Studies
GSSR Warsaw	Graduate School for Social Research
HEI	Higher Education Institution
HGGS Heidelberg	Heidelberg Graduate School for the Humanities and Social Sciences
HYMY Helsinki	Doctoral School in Humanities and Social Sciences
Loughborough U	Loughborough University
RKU Heidelberg	Ruprecht-Karls-Universität Heidelberg
DSHSS Leuven	Doctoral School Humanities and Social Sciences
Triple-I	Internationalization, interdisciplinarity, intersectorality
U Helsinki	University of Helsinki
U Leipzig	Universität Leipzig
U Paris-Saclay	Université Paris-Saclay

1. Introduction

Doctoral training has been on the European Union (EU) agenda for several years now. The Bologna Conference in 1999 launched the European Higher Education Area (EHEA) and introduced the EU-wide two-step higher educational system with bachelor's and master's degrees.¹ In 2000, the EHEA was supplemented by the foundation of the European Research Area (ERA), with the aim to integrate and unite research and technology within Europe.² With the Salzburg meeting in 2005, an agreement on ten basic principles for the third cycle of higher education was established.³ The Salzburg principles focus on preparing doctoral candidates for professional career opportunities, which also includes the employment market outside academia.⁴ Emerging from this is the need for transferable skills, interdisciplinary training, and international mobility during the doctoral process. In 2011, the European Commission published seven principles for innovative doctoral training based on the Salzburg principles.⁵ These principles also stress multidisciplinary research environments, transferable skills training, and preparing doctoral candidates for work outside academia.

In line with these principles, the Graduate SPIRIT (Graduate School Program for International Researchers and Interdisciplinary Training) project aims to enrich doctoral training within graduate schools. The challenge to be met is to successfully implement internationalization, interdisciplinary approaches, and intersectorality in doctoral training. Therefore, a four-step procedure was established: the first step is to create an inventory of the participating graduate schools, which acts as a basis for the second step – a selection of best practice examples with respect to doctoral candidates, staff, curriculum, and organization. The third is the production of a blueprint to improve existing graduate schools

¹ Ministerial Conference Bologna. 1999. The Bologna Declaration of 19 June 1999. Joint declaration of the European Ministers of Education.

http://media.ehea.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf (accessed on 25 May 2018).

² Council of the European Union. 2012. Conclusions on 'A reinforced European research area partnership for excellence and growth'.

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/134168.pdf (accessed on 25 May 2018).

³ Koch Christensen, Kirsti. 2005. Bologna Seminar. Doctoral Programmes for the European Knowledge Society. Salzburg, 3-5 February 2005. General Rapporteurs Report.

http://www.eua.be/eua/jsp/en/upload/Salzburg_Report_final.1129817011146.pdf (accessed on 24 May 2018).

⁴ Ibid.

⁵ European Commission. 2011. Seven Principles for Innovative Doctoral Training.

http://www oulu.fi/sites/default/files/content/Seven_Principles_for_Innovative_Doctoral_Training.pdf (accessed on 24 May 2018).

and to serve as an example for new graduate schools. The fourth is finally testing a number of innovations regarding international, interdisciplinary, and intersectoral training.

The present report serves as an inventory of the participating graduate schools within the Graduate SPIRIT consortium. The database is composed from website analysis of the graduate schools' homepages, a survey answered by representatives of the graduate schools, expert interviews, discussion rounds, and a document analysis. Triangulation of research data is a way to compensate for bias in the different analysis material.⁶ The survey covers topics ranging from the organization of the graduate schools to questions concerning the doctoral candidates and the curriculum and a part on the faculty. The majority of the questions were posed as open questions. The aim of the inventory is to gain information on policies, procedures, and practices of graduate schools regarding internationalization, interdisciplinary, and intersectorality (Triple-I). The advantage of open questions is that they do not limit the subject of the survey and therefore offer the opportunity to find out new and unexpected aspects of institutional practices.⁷ Furthermore, abandoning categories allows for broader response opportunities. For the document analysis, supervision agreements and course programmes of the graduate school were evaluated as well. Next to this report, the inventory resulted in a database containing examples for course programmes, supervision agreements, study regularities, and other legal frameworks.

⁶ Denzin, Norman K. 1970. *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: Aldine.

⁷ Züll, Cornelia and Natalja Menold. 2014. Offene Fragen. In *Handbuch Methoden der empirischen Sozialforschung*, eds.: Nina Baur and Jörg Blasius, pp 713-719. Wiesbaden: Springer VS.

2. Basic information

This section, firstly, provides basic facts about the participating institutions. The GRADUATE Spirit is a consortium of nine institutions offering support and training for doctoral candidates in a number of different ways. Statistics are provided concerning the total number of doctoral candidates, share of international candidates, and gender distribution. The analysis of the academic setting offers the first indicators for a classification of the various graduate schools. All graduate schools provide doctoral training in the fields of Humanities and Social Sciences; the section on disciplines describes similarities as well as specifics in the range of disciplines included in the graduate schools. Additionally, the genesis of the graduate schools is traced.

2.1. Participating institutions

Table 1: Overview of participating institutions

Erasmus Graduate School of Social Sciences and the Humanities (EGSH Rotterdam) <i>Erasmus Universiteit Rotterdam (EUR Rotterdam)</i>
Heidelberg Graduate School for the Humanities and Social Sciences (HGGS Heidelberg) <i>Ruprecht-Karls-Universität Heidelberg (RKU Heidelberg)</i>
KU Leuven Doctoral School for the Humanities and Social Sciences (DSHSS Leuven) <i>KU Leuven</i>
L'Ecole doctorale "Sciences de l'Homme et de la Société" (ED SHS Paris-Saclay) <i>Université de Versailles Saint-Quentin-en-Yvelines; Université Paris-Saclay (U Paris-Saclay)</i>
Loughborough Doctoral College (DC Loughborough) <i>Loughborough University (Loughborough U)</i>
Graduate School for Social Research (GSSR Warsaw) <i>Polish Academy of Sciences</i>
Graduate School Global and Area Studies (GSGAS Leipzig) <i>Universität Leipzig (U Leipzig)</i>
Doctoral School in Humanities and Social Sciences (HYMY Helsinki) <i>University of Helsinki (U Helsinki)</i>
Doctoral School in Political Science, Public Policy and International Relations (DSPS Budapest) <i>Central European University in Budapest (CEU Budapest)</i>

Nine institutions for doctoral training in Humanities and Social Sciences from eight different European countries took part in the inquiry:

- (1) Erasmus Graduate School of Social Sciences and the Humanities (EGSH Rotterdam) is part of Erasmus Universiteit Rotterdam (EUR Rotterdam), a university offering research and training in four main domains: Wealth, Health, Governance, and Culture.
- (2) Heidelberg Graduate School for the Humanities and Social Sciences (HGGS Heidelberg) is part of the comprehensive university Ruprecht-Karls-Universität Heidelberg (RKU Heidelberg).
- (3) The Doctoral School for the Humanities and Social Sciences (DSHSS Leuven) is one of the three doctoral schools at KU Leuven (next to Doctoral School Science and Technology and Doctoral School Biomedical Sciences).
- (4) L'École doctorale "Sciences de l'Homme et de la Société" (ED SHS Paris-Saclay) is one out of 20 doctoral schools in the Doctoral College of Université Paris-Saclay (U Paris-Saclay), a university consortium made up of various French higher education institutions and research institutes, including Université de Versailles Saint-Quentin-en-Yvelines.
- (5) Loughborough Doctoral College (DC Loughborough) unites all doctoral activity at Loughborough University (Loughborough U).
- (6) The Graduate School for Social Research (GSSR Warsaw) in Poland is the only graduate school in the sample that is not part of a university. It is attached to the Institute of Philosophy and Sociology of the Polish Academy of Sciences.
- (7) Graduate School Global and Area Studies (GSGAS Leipzig) brings more than 20 disciplines from all parts of the Humanities and Social Sciences at Universität Leipzig (U Leipzig) under one roof.
- (8) The University of Helsinki (U Helsinki) is the largest university in Finland and its Doctoral School in Humanities and Social Sciences (HYMY Helsinki) is a subject of the inventory as well.
- (9) Finally, the Doctoral School in Political Science, Public Policy and International Relations (DSPS Budapest) of the Central European University in Budapest (CEU Budapest) was evaluated.

Considering the titles of the schools, one can observe that almost all institutions have a thematic focus in their names. DC Loughborough is an exception since it covers all doctoral activities at Loughborough U. The graduate schools in Rotterdam, Heidelberg, Leuven, Paris-Saclay, Warsaw, and Helsinki refer directly to Humanities and Social Sciences. The

graduate school in Leipzig is focused on Global and Area Studies, whereas Budapest emphasizes the orientation on various branches of Political Science. The names vary from *graduate school* to *doctoral school* to *doctoral college*. The graduate school in Paris-Saclay is the only institution not using an English name. In the following, we use the term *graduate school* in order to refer in general to the institutions for doctoral training.

2.2. Distribution of candidates

In the following section, some statistical data⁸ should help to fill in the picture of the graduate schools. Looking at the number of doctoral candidates, the share of international candidates, and the share of female candidates provides first insights into the candidate composition of the graduate schools.

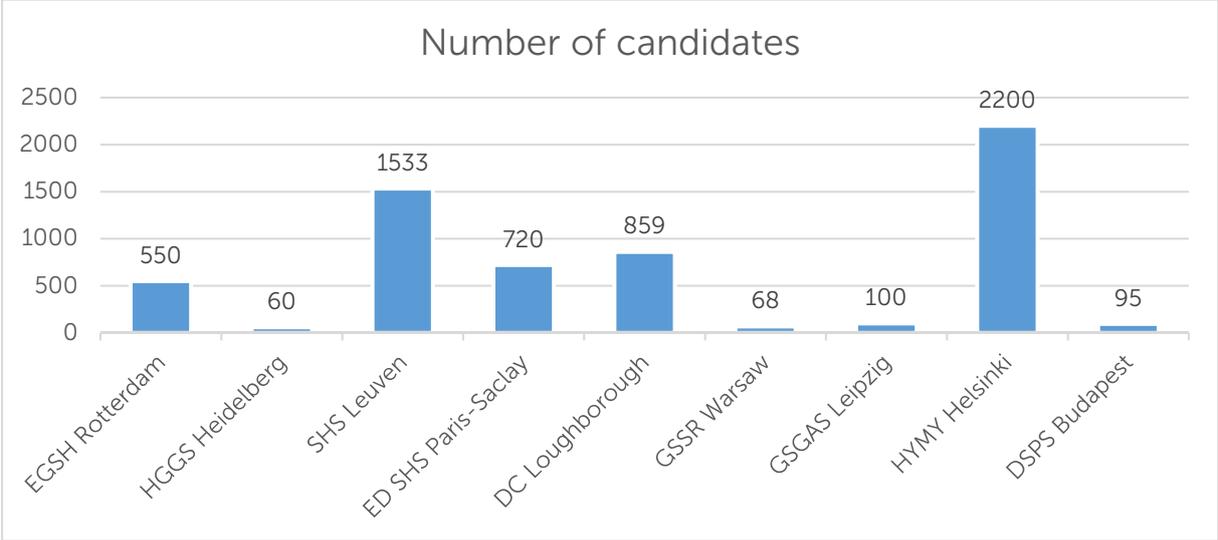


Figure 1: Total number of doctoral candidates

The total number of doctoral candidates enrolled in the nine institutions varies widely (Figure 1). With 60 doctoral candidates, the HGGG Heidelberg has the smallest number of active candidates. In stark contrast, HYMY at U Helsinki reports a total number of 2,200 candidates, thus marking the largest institution for doctoral training within the Graduate SPIRIT institutions. This outstanding high number of doctoral candidates results from the fact that in Finland the doctoral right is granted for life. Moreover, the body of doctoral candidates includes several external candidates that are doing the doctorate in addition to their regular job.

Taking a more detailed look at the numbers, the graduate schools may be categorized into two groups. The first are graduate schools with equal or less than 100 members, which

⁸ Please note that these numbers should be considered with care since the numbers from some institutions are estimates.

applies to the institutions in Heidelberg, Warsaw, Leipzig, and Budapest. The second are graduate schools with more than 500 candidates, which includes the graduate schools in Rotterdam, Leuven, Paris-Saclay, Loughborough, and Helsinki.

A great variety can also be found in the share of international doctoral candidates (Figure 2). The international character of the CEU Budapest is reflected in the share of international candidates: 83 per cent of the candidates enrolled in DSPS Budapest are from abroad. However, one-third of the international candidates earned their last degree from a Hungarian university, and mainly CEU Budapest.⁹

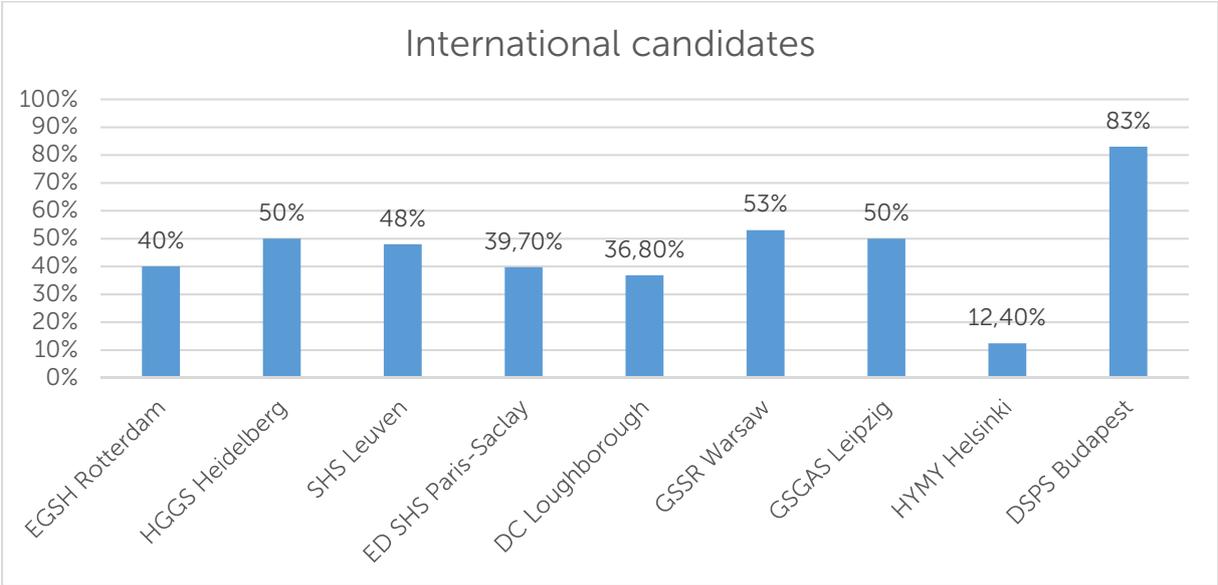


Figure 2: Share of international doctoral candidates

HMYM Helsinki reports the lowest share in international candidates. Only 12.4 per cent of the doctoral candidates are from abroad, which makes up only 272 persons of the 2,200 members. In all other graduate schools, the share of internationals varies between 40 and 50 per cent. Internationality does not mean only welcoming candidates from all over the world (“vertical mobility”¹⁰), but also sending the doctoral candidates abroad (“horizontal

⁹ The Central European University in Budapest is a private university accredited in Hungary and the USA and is one of the most international universities worldwide (see <https://www.ceu.edu/about>, accessed on May 24 2018)

¹⁰ Kehm, Barbara. 2006. Doctoral education in Europa and North America: a comparative analysis. In *The Formative Years of Scholars*, ed. Ulrich Teichler, pp. 67-78. London: Portland Press, 71.

mobility¹¹). A high share of international candidates is one indicator for the internationality of doctoral programmes.

Coming to the gender distribution (Figure 3), the variety is not as distinct as in the total number or the share of international candidates. In most of the graduate schools, half of the candidates are female. The graduate schools in Heidelberg and Leipzig account for the largest proportion of women, with 60 per cent in each case, whereas in Loughborough and Budapest only 41 per cent of the candidates are female.

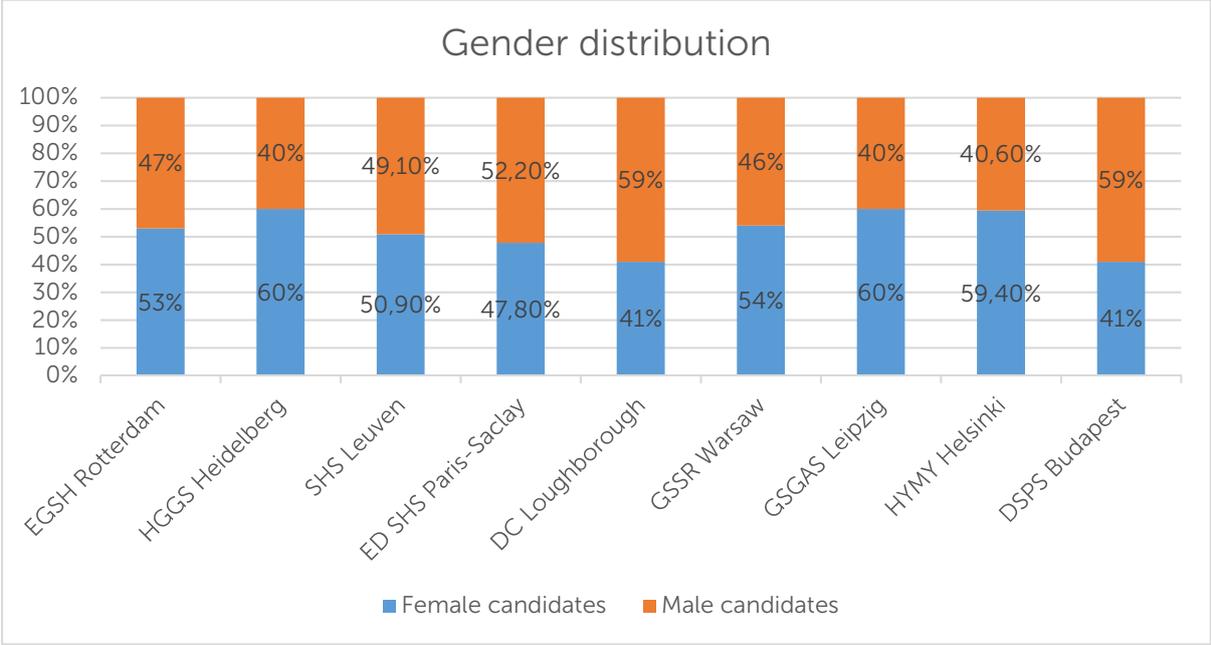


Figure 3: Gender distribution

2.3. Academic setting

Concerning the total number of doctoral candidates, there are two groups of graduate schools – graduate schools with fewer than 100 candidates and graduate schools with a number of more than 500 candidates. Taking a closer look at the academic setting of the individual schools, an explanation for the substantial gap in the number of candidates emerges.

EGSN Rotterdam is connected to the research areas Culture, Health, and Governance at EUR Rotterdam.¹² It offers services to the doctoral candidates at the participating institutions and links more content-related research groups of four faculties, seven departments, and

¹¹ibid.
¹² At EUR Rotterdam, research and education is concentrated in four research areas – namely Health, Wealth, Governance, and Culture.

three research institutions within EUR Rotterdam. The case at KU Leuven is similar: education and research is organized within three groups¹³ and each group has its own doctoral school. DSHSS Leuven is dedicated to the Humanities and Social Sciences group. There are 29 doctoral programmes within the doctoral school organized by nine faculties (see Table 2). The case at U Paris-Saclay is slightly different in this regard. The university should be completely established in a few years as the result of a merger of ten different institutions of higher education, among them three universities.¹⁴

¹³ KU Leuven grouped research into the areas Humanities and Social Sciences, Biomedical Sciences, and Science, Engineering and Technology.

¹⁴ Université Versailles St Quentin, Université Paris-Sud, Université Evry Val d'Essonne

Table 2: Programmes within graduate schools

GRADUATE SCHOOL	INCLUDED PROGRAMMES
Erasmus Graduate School of Social Sciences and the Humanities (EGSH), Rotterdam	<p>Research groups and projects in the following departments:</p> <ul style="list-style-type: none"> - Arts and Culture - Development Studies - Health Policy and Management - History - Media and Communication - Pedagogical and Educational Sciences - Philosophy - Psychology - Public Administration - Sociology - Sustainability Transitions - Urban Development and Governance
KU Leuven Doctoral School for the Humanities and Social Sciences (DSHSS), Leuven	<p>Every related faculty has its own doctoral programmes:</p> <ul style="list-style-type: none"> - Theology: Theology, Religious Studies - Philosophy: Philosophy - Canon Law: Canon Law - Law: Law, Criminology - Economics and Business Economics: Economics, Business Economics, Business Administration - Social Sciences: Social and Cultural Anthropology, Social Sciences - Arts: Linguistics, Literature, Ancient Near Eastern Studies, Arabic and Islamic Studies, Sinology, Classical Studies, Japanese Studies, Oriental Studies, Slavonic and East European Studies, Art History, History, Musicology, Archaeology, Translation Studies, Cultural Studies - Psychology and Educational Sciences: Psychology, Educational Sciences - School of Arts: the Arts
L'École doctorale "Sciences de l'Homme et de la Société" (ED SHS), Paris-Saclay	<p>Research groups and projects in the following divisions:</p> <ul style="list-style-type: none"> - Economy and Management Sciences - Law and Criminal Sciences - Social Sciences and Humanities
Loughborough Doctoral College (DC), Loughborough	<p>Doctoral programmes:</p> <ul style="list-style-type: none"> - Arts - Humanities - Social Sciences - Natural Sciences - Engineering
Doctoral School in Humanities and Social Sciences at the University of Helsinki (HYMY), Helsinki	<p>Doctoral programmes:</p> <ul style="list-style-type: none"> - Economics - Gender, Culture, and Society - History and Cultural Heritage - Language Studies - Law - Philosophy, Arts and Society - Political, Societal and Regional Change - Psychology, Learning and Communication - School, Education, Society, and Culture - Social Sciences - Theology and Religious Studies.

	Five faculties coordinate those programmes: Faculty of Social Sciences, Faculty of Law, Faculty of Education, Faculty of Arts, and Faculty of Theology.
--	---

At the moment, research and training of doctoral candidates at ED SHS Paris-Saclay is taking place in the participating Higher Education Institutions (HEIs). Doctoral training is concentrated in the doctoral college, which is a consortium of 20 doctoral schools, among them ED SHS Paris-Saclay. ED SHS Paris-Saclay serves as an institutional framework for the doctoral training in Humanities and Social Sciences in the different institutions and consists of three divisions: Law, Economy and Business, and Humanities and Social Sciences.¹⁵ The doctoral candidates from the attached research units within the participating HEI are united at ED SHS Paris-Saclay. DC Loughborough is the melting pot for all doctoral activities within the discipline-specific doctoral schools at Loughborough U. At HYMY Helsinki, eleven doctoral programmes in Humanities and Social Sciences from five different faculties merge to form the doctoral school. Whereas the doctoral school coordinates the functions of the doctoral programmes, funds grants, and provides transferable skills courses, supervision and discipline-specific courses take part within the doctoral programmes. The graduate schools described so far comprise various doctoral programmes and/or research groups. They are umbrella organizations that unite doctoral activities in the Humanities and Social Sciences (or, in the case of DC Loughborough, doctoral activities of all disciplines) at the respective universities (see Table 2). As a result, the number of doctoral candidates is rather high.

Turning to the graduate schools with a lower number of doctoral candidates. HGGS Heidelberg is a joint graduate school of four faculties. In comparison to the above-mentioned umbrella organizations, HGGS Heidelberg is more of a doctoral programme than an institution uniting different research groups or programmes. At GSGAS Leipzig, the situation is similar. The graduate school is part of the Research Academy Leipzig, an umbrella organization at U Leipzig with three subcentres devoted to the Life Sciences, Natural Sciences, and Humanities and Social Sciences; each centre also has several doctoral programmes and graduate schools. GSGAS Leipzig is part of the Graduate Centre Humanities and Social Sciences. GSSR Warsaw is a department of the Institute of Philosophy and Sociology of the Polish Academy of Sciences and offers master's degree programmes as well as a doctoral programme. At CEU Budapest, all departments have a doctoral programme. DSPS Budapest is an exception since it is a joint programme of the departments of International Relations and Political Science and the School of Public Policy. Within the

¹⁵ Pôle Droit, Pôle Economie-Gestion, Pôle Sciences Sociales et Humanités.

programme, the doctoral candidates can choose between five tracks: Public Policy, Comparative Politics, Political Economy, Political Theory, and International Relations.

The structure of the graduate schools is not uniform. From the academic setting of the nine institutions for doctoral training, two preliminary frameworks can be derived:

- a) Graduate schools as umbrella organizations serve as a network for several independent doctoral programmes or research groups. Content-related training is organized by the participating doctoral programmes. The graduate schools EGSN Rotterdam, DSHSS Leuven, ED SHS Paris-Saclay, DC Loughborough, and HYMY Helsinki are of this type. The centralization of several doctoral programmes is reflected in the number of candidates: all of these schools include more than 500 doctoral candidates.
- b) Graduate schools with less than 100 doctoral candidates comprise the second type. They not only include several doctoral programmes but also can rather be classified as a programme themselves. They organize the curriculum and content-related courses for the doctoral candidates. Those thematic graduate schools can be part of a superordinate structure for doctoral candidates. HGGS Heidelberg, GSSR Warsaw, GSGAS Leipzig, and DSPS Budapest belong to this group.

By looking at the policies, procedures, and practices of graduate schools regarding organization, doctoral candidates, curriculum, and staff, the categorization of two types of graduate schools offer a tool in which to frame, summarize, and compare similarities and differences.

2.4. Disciplines

The Graduate SPIRIT project unites graduate schools rooted in Humanities and Social Sciences. They offer doctoral training in a number of different fields and disciplines. Figure 4 provides a sketch of which disciplines are covered by the graduate schools. Culture, History, and Sociology are covered by seven of the nine explored graduate schools. This is followed by Education, Philosophy, and Psychology, represented within two-thirds of the nine graduate schools. Law and Theology do not occur frequently in the subject area of graduate schools. Furthermore, disciplines such as Media and Communication or Area Studies are not well presented but often are covered by a doctorate in Social Sciences.

Around ten disciplines – by considering the categorization from Figure 4 – are represented within one graduate school. GSSR Warsaw and DSPS Budapest are exceptions to this. At GSSR Warsaw, doctoral training is limited to the disciplines Sociology and Philosophy. DSPS Budapest is related to Political Sciences, but overall CEU Budapest offers a variety of

doctoral programmes in the Humanities and Social Sciences and DSPS Budapest serves as a representative case.

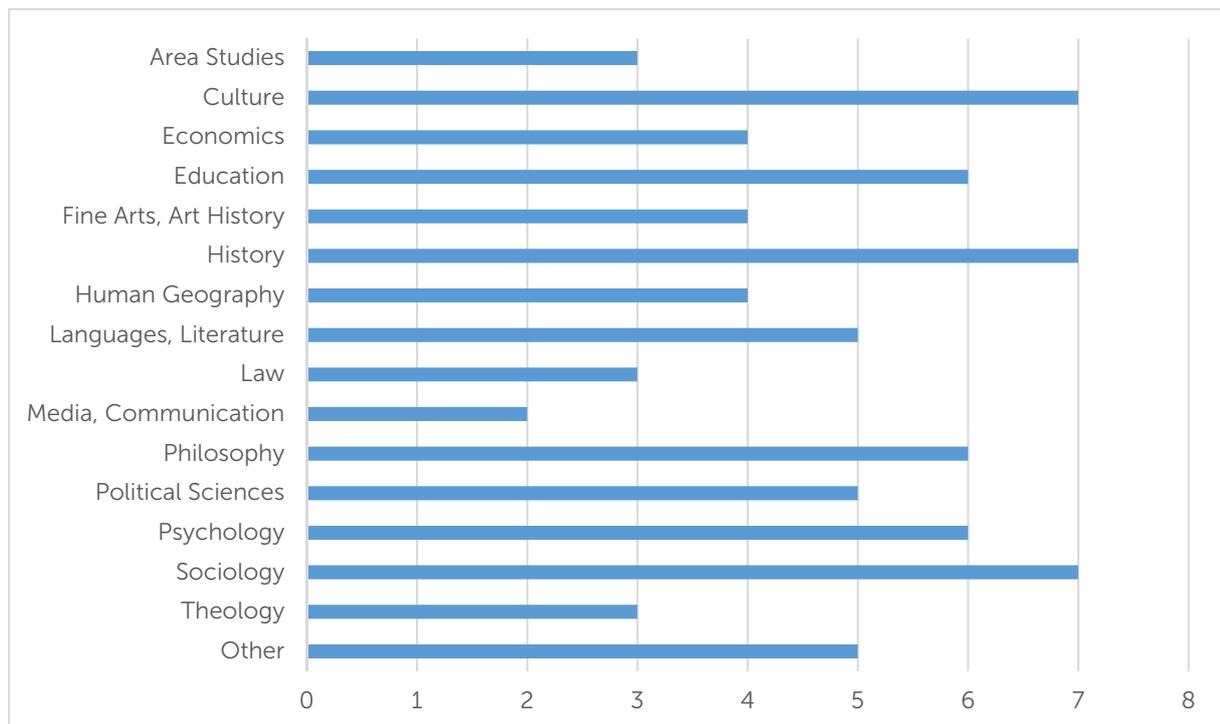


Figure 4: Number of graduate schools per discipline

The broad range of disciplines is still not an indicator for interdisciplinary training. Especially within the larger umbrella organizations, the doctoral programmes or research groups are discipline focused and exist independent from each other. The graduate schools in Rotterdam, Leuven, Paris-Saclay, Loughborough, and Helsinki are referring to the names of the doctoral programmes when it comes to disciplines. Having this in mind, these graduate schools are rather multidisciplinary than interdisciplinary. However, some of the doctoral programmes within the graduate schools pursue interdisciplinary approaches, such as the Erasmus School of Health Policy and Management, belonging to EGSH Rotterdam or the Doctoral Programme in Gender, Culture and Society at HYMY Helsinki. Looking at the smaller institutions, HGGs Heidelberg and GSGAS Leipzig are both graduate schools connecting doctoral candidates from several disciplines in one doctoral programme. On that note, interdisciplinarity is an original part of both of the graduate schools. This pattern is in accordance with the previously mentioned distinction between umbrella organizations and thematically oriented graduate schools. The bigger graduate schools are concerned with the doctoral programmes they offer, providing a broad spectrum of fields, while the focus of the thematic programmes is on the integration of different disciplines.

2.5. Foundation history

Almost all graduate schools were founded following similar rationales between 2007 (DSHSS Leuven) and 2017 (DC Loughborough¹⁶). The oldest graduate school by far in the survey is the GSSR Warsaw, founded in 1992:

“The founders of the GSSR were dissatisfied with the existing system of doctoral studies, often consisting solely of the individual work of the candidates under the guidance of their academic supervisor thus excessively restricting the scope of their interests and delaying the completion of the PhD dissertation.” (GSSR Warsaw)

GSSR Warsaw was, from the beginning, established as a graduate school. The aim of the foundation was to improve the conditions for obtaining a doctorate. Another reason to establish a graduate school was to build up a centre of doctoral studies in Europe with high academic standards and therefore internationally respected diplomas in social sciences.

The formation of EGSHE Rotterdam in 2012 was one instrument to achieve the aims of EUR Rotterdam to improve research, attract international candidates, offer additional courses, and reduce dropout rates. The establishment of the graduate school is a consequence of national policies seeking to organize doctoral training in graduate schools. These policies are committed to the European agreements on including doctoral training into the Bologna Process as the third cycle of tertiary education.

The foundation of the HGGH Heidelberg in 2008 was in line with the German state’s “Excellence Initiative” for universities to endorse top-level HEIs and to enhance the German research landscape. Starting as a national graduate school, HGGH Heidelberg has steadily expanded its share of international doctoral candidates by building strong ties to Latin America and also other regions.

DSHSS Leuven was set up in 2007 by a decree of the Flemish government. It was established in order to recruit international candidates, organize doctoral training in a structured way, and improve the efficiency of the doctorate. As such, the reasons for the establishment of a graduate school do not differ from the goal of the already mentioned institutions. Additionally, the graduate school should be an instrument to enhance visibility and increase transparency of research activities at KU Leuven.

¹⁶ The information about the transformation from a graduate school into DC Loughborough has not been reported and therefore the foundation history of DC Loughborough is lacking in this report.

The formation of ED SHS Paris-Saclay in 2016 was determined on a national/regional governmental level – a part of a national call for “excellence initiatives” designed to provide better global visibility of French research and higher education.

GSGAS Leipzig is the product of a merger of five existing doctoral programmes in 2013 to form a bigger group in order to

“1) strengthen the visibility (also in terms of funding opportunities), 2) develop for all PhD candidates in the field of Area and Transregional Studies a common taught part, 3) develop a canon in Global and Area Studies – and to build the brand ‘the Leipzig School’, 4) give all PhD candidates the same funding and support opportunities.” (GSGAS Leipzig)

The foundation history of GSGAS Leipzig shows that establishing a graduate school is an ongoing process. Initially established from the further advancement of a taught doctoral programme founded in 1998, GSGAS Leipzig is currently undergoing another transformation into a graduate school based upon a target agreement with the participating faculties and the rectorate and thus including more doctoral candidates and professors.

The foundation of HYMY Helsinki stems from the objective to reorganize and coordinate doctoral training at the U Helsinki and was founded in 2014. It was initiated by a national reform of the graduate school system in Finland, starting in 1995. Between 1995 and 2014, graduate schools were exclusively for top doctoral candidates that must graduate within four years and only selected schools were founded by the Finnish state. An evaluation of this system resulted in the decision to hand the responsibility for doctoral training over to the university and to structure all doctoral activities into graduate schools consisting of several doctoral programmes. In this context, HYMY Helsinki was founded for the purpose of improving doctoral training at the U Helsinki, developing supervision, and promoting the profile of doctoral training at U Helsinki, including its national as well as international visibility.

DSPS Budapest was initiated as part of a reaccreditation process of the doctoral programme in Political Science in 2009. As a result, the departments of Political Sciences, International Relations, and Public Policy proposed a joint doctoral programme. The intention was to offer a wider scope of courses and to provide a more cohesive programme. Furthermore, the established doctoral school serves as a framework for further cooperation between the three departments.

The improvement of doctoral training and increase in completion rates are stated reasons for establishing graduate schools. Concentrating doctoral training in graduate schools often includes advancement of supervision and offering additional courses and other structural

elements of support. Another objective of establishing graduate schools is to stay competitive in a growing landscape of doctoral studies. The focus lies on high-quality doctoral training with international competitiveness. National and international visibility of research at the respective university aims to attract motivated young researchers and achieve a good reputation. By attracting international doctoral candidates, graduate schools are a mean to strengthen the internationalization of universities. Furthermore, the foundation of graduate schools can be connected to the expansion of interdisciplinarity or at least multidisciplinary. In most cases, graduate schools serve as a link between faculties and departments. In Heidelberg, the foundation of the graduate school was a joint project of the Faculty of Modern Languages, Philosophy Faculty, Faculty of Behavioural and Cultural Studies, and Faculty of Theology. In Warsaw, a group of scholars in Philosophy, Sociology, Law, Economics, Psychology and Political Science from the Polish Academy of Sciences and other research institutions developed the idea of a graduate school. In Leipzig, five smaller doctoral programmes were merged together, and in Budapest the graduate school is the connection point of three departments.

Analysing the initiation of graduate schools for doctoral training, a differentiation can be made between graduate school stemming from national policies and graduate schools established in the context of the HEI. National policies played a role in establishing EGSH Rotterdam, DSHSS Leuven, ED SHS Paris-Saclay, and HYMY Helsinki. The graduate school in Heidelberg is the outcome of a joint project by four faculties of RKU Heidelberg. Nevertheless, it was not completely autonomous from national policies since it was founded in the context of the "Excellence Initiative", which is a funding programme of the German government. GSGAS Leipzig, GSSR Warsaw,¹⁷ and DSPS Budapest were initiated within the respective HEI. It is also striking that all graduate schools emerging from national policies are of an umbrella organization type and that the thematically oriented programmes are graduate schools established (almost) without any involvement from the national level.

¹⁷ In autumn 2018, a national reform of higher education institutions in Poland was conducted. In this regard, doctoral training at Polish universities will be grouped into doctoral schools with at least two disciplines involved.

3. Organization

The following chapter is concerned with the budgetary processes and constraints of the graduate schools, the value and responsibilities of administrative staff, the assessment and quality control of the schools, and their networks and international partnerships. It provides an insight into the organizational procedures and structures of the graduate schools.

3.1. Budget

The budget of the graduate schools comes from different sources. At EGSN in Rotterdam, the largest involved faculty is responsible for managing the budget of the graduate school and advises on matters of finance, organisation and training. The executive board of the graduate school decides together with the supervisory board – consisting of the deans of the participating faculties – the budget and personnel topics. ED SHS Paris-Saclay receives money from all participating institutions. The size of the contribution of the participating institutions to ED SHS Paris-Saclay and EGSN Rotterdam is calculated in proportion to the number of doctoral candidates. GSGAS Leipzig receives an annual budget, which is part of the overall budget of the umbrella organization for doctoral training at U Leipzig – the Research Academy Leipzig. In this case, an interposed institution within the university allocates the budget while GSGAS Leipzig has to attract further external funding on its own. In Heidelberg, the budget of the graduate school consists of contributions from different bodies of the university.¹⁸ The Flemish government has a support programme for young researchers, with a budget distributed to the Flemish universities. At KU Leuven, the share is allocated to the central services and the three doctoral schools.¹⁹ Additionally, each of the doctoral schools at KU Leuven also receives a separate budget from the university itself. External funding is the basis of DC Loughborough as well. They receive funding from different UK research councils such as the Engineering and Physical Science Research Council (EPSRC) or the Economic and Social Research Council (ESRC). The graduate schools in Warsaw, Helsinki, and Budapest receive their budgets directly from the higher education institutions they are attached to. For GSSR Warsaw, the Institute of Philosophy and Sociology of the Polish Academy of Sciences covers all running costs, while additional stipends not specified in Polish law are supported by external funding. The board of doctoral education at the U Helsinki consists of the vice rector for research and the academic leaders of the doctoral school. They decide the budget for the doctoral schools. The budget for

¹⁸ "The funding of the Graduate School stems partly from central university funds, partly from the four participating faculties." (HGGS Heidelberg)

¹⁹ The funding by the Flemish government, Omkadering van Jonge Onderzoekers (OJO), for the support of young researchers is gathered at KU Leuven under the label "YouReCa" (Young Researchers' Careers).

HYMY Helsinki is allocated between the eleven participating doctoral programmes and covers costs for the organization of courses, invitations of international scholars, travel costs of the doctoral candidates, and completion grants. DSPP Budapest receives a basic yearly budget for salaries and non-personnel costs, such as conference organization, social events, workshops, and doctoral defences. To sum up, there is no consistent tendency in the budget politics of the respective graduate schools. The source of the budget ranges from national or regional governments to higher education institutions to bodies within those institutions.

3.2. Administration

All participating graduate schools rely on administrative support, but the ratio of staff to the number of candidates differs widely (see Table 3). Nonetheless, a pattern is observable: in the thematically oriented graduate schools in Heidelberg, Warsaw, Leipzig, and Budapest, there are on average more employees in relation to the number of candidates as within the bigger umbrella organizations in Rotterdam, Leuven, Paris-Saclay, and Helsinki. GSSR Warsaw recorded the most employees in relation to the number of doctoral candidates: calculated proportionally, one administrative employee is responsible for 34 doctoral candidates. Oppositely, the doctoral school in Leuven has one administrator for 1,533 candidates. A reason for these differences and the rather low number of staff within the graduate schools could be that the doctoral programmes and research groups within the schools can rely on additional administrative staff. If these staff members are taken into consideration for DSHSS Leuven and HYMY Helsinki, the staff/doctoral candidates ratio is closer.

Table 3: Administrative staff²⁰

	DOCTORAL CANDIDATES (TOTAL NUMBER)	ADMINISTRATIVE STAFF (TOTAL NUMBER)	RATIO ADMINISTRATIVE STAFF/DOCTORAL CANDIDATES
<i>Umbrella organizations</i>			
EGSH Rotterdam	550	2.4	229.16
DSHSS Leuven	1,533	1 (8.7) ²¹	1,533 (176.2)
ED SHS Paris-Saclay	720	8	90
DC Loughborough	859	15	57.26
HYMY Helsinki	2,200	6 (10) ²²	366.66 (220)

²⁰ Please note that these numbers should be considered with care since the numbers from some institutions are estimates and in some parts of the information on the full-time equivalent of the employees are lacking.

²¹ The number in brackets relates to the number of administrative staff if staff from the several doctoral programmes are included.

²² The number in brackets relates to the number of administrative staff if staff from the several doctoral programmes are included.

<i>Thematically oriented graduate schools</i>			
HGGG Heidelberg	60	1	60
GSSR Warsaw	68	2	34
GSGAS Leipzig	100	1	100
DSPS Budapest	95	1.5	63.33

DC Loughborough is the exceptional case. As mentioned before, the doctoral college unites all doctoral activities at Loughborough U. Here the total number of staff members is largest:

“There are fifteen support staff who have a variety of roles from researcher development to website design to student registration.” (DC Loughborough)

As stated in the quotation, the staff at DC Loughborough has many different functions and there are employees for each of the roles. Also at the other graduate schools, the administrative staff is responsible for a number of tasks. Work package of administrative staff could include in the course of the doctoral process several tasks: registration of the doctoral candidates; organization of the curriculum, special courses, and seminars, conferences, and events; supervision issues such as the organization of advisory councils or thesis committees; preparation of transcripts; and eventual organization of defence procedures. Even counselling offers on topics like scholarships, career options, policy and regulations, and research developments can be part of the staff’s tasks. There are also governance and administrative tasks, which can include general office management duties, data management, room allocation, organization of scholarships and joint degrees, and communication with the board of the graduate school as well as meeting organization, evaluation, and information and communication technology matters. Administrative and promotional services for recruiting new candidates and organization of the application process as well as the extension or establishment of collaboration and contact maintenance can be tasks. Financial tasks such as budget administration, distribution, and raising of additional financial sources is another field of action. Moreover, administrative staff within the graduate schools are concerned with marketing, for example website maintenance, newsletter distribution, and other promotion activities. As already stated, even though there are differences in the number of administrative staff members, a tendency is recognizable: on average, more administrative staff is available in the thematic graduate schools in relation to the number of doctoral students. However, comparing the total figures with the aforementioned tasks it becomes clear that most graduate schools are understaffed. The overview of possible responsibilities of administrative staff might not be exhaustive but it shows the extensive functions of the staff. In some cases, only one or two administrative staff member have to coordinate and fulfil all these functions.

However, not all tasks are the responsibilities of the staff of the graduate school. There are structural differences between the graduate schools. For example, other units within the HEI in Rotterdam and Leuven manage information and communications technology matters, whereas the coordinator of HGGS Heidelberg is also the IT representative at the graduate school. For the organization of the defence, at most universities the faculties are in charge and not the graduate school. In addition, HEI management often have HR facilities, such as salary payment, which the graduate school does not take care of directly. HYMY Helsinki names units within the U Helsinki, offering administrative services to the doctoral candidates, such as student services (for general counselling, study transcripts, and registering of students), career services, and a helpdesk (for IT problems).

3.3. Assessment

The assessment of graduate schools appears to be internal or external. Internal means that the assessment is taking place on behalf of the higher education institution. External refers to an assessment by parties outside the university, for example experts or governmental organizations.

Committees consisting of university members and external parties assess the graduate schools in Paris-Saclay, Loughborough, Leipzig, and Helsinki. The assessment of ED SHS Paris-Saclay takes place every five years by the national committee High Council for Evaluation of Research and Higher Education (HCERES) and is prepared by an internal assessment process within the doctoral college. A team of internal and external assessors evaluates DC Loughborough every four years. A committee consisting of expert academics and personnel development managers assesses GSGAS Leipzig every four years. The focus lies on scientific performance and human resource development. The board of directors of doctoral education at the U Helsinki has an evaluation that is apart from the regular research evaluation. Although the decision is internal, the assessment committee includes external and even international professionals.

At EGSH Rotterdam, two different assessments take place. The supervisory board of the graduate school evaluates the performance of the school and approves the budget of the school annually. Furthermore, a programme board holds meetings twice a year concerning the quality of the programme. Additionally, EGSH Rotterdam supports the national research assessments of its constituting disciplines taking place every six years. In Warsaw, a group of experts appointed by the Ministry of Science and Higher Education assesses the Institute of Philosophy and Sociology of the Polish Academy of Sciences every three years. GSSR Warsaw reports to the Institute of Philosophy and Sociology for funding and contributes to

their report for the Polish Academy of Sciences and Ministry of Science and Higher Education. The review of DSPS Budapest takes place in the form of annual reports. The Senate Curriculum and Academic Quality Assurance Committee reviews the reports and provides feedback. Although the evaluation takes place within the university, an institution outside of the doctoral school undertakes it. Moreover, the budget of the doctoral schools depends on the review of the reports. Since the doctoral programmes at CEU Budapest are accredited in the State of New York, the authorities over there assess the programmes based on the reports. The accreditation process ensures external quality assurance.

The graduate school in Heidelberg is subject to internal assessments. They take place in a general meeting once a year, in which board members, the coordinator, and doctoral representatives evaluate the graduate school and provide advice concerning future advancement. Along with an annual survey among the doctoral candidates, the members of HGGS Heidelberg carry out the evaluation. There is no general assessment at DSHSS Leuven. However, in 2017/2018, the outcome of the “Flemish Support Programme for Young Researchers” was evaluated. DSHSS Leuven received a part of the funds.

With the assessment, different objectives are pursued. From the responses received, it appears that the funding of the graduate schools in Rotterdam and Budapest depends on the outcome of the evaluation.²³ Furthermore, quality improvement, quality assurance, and advancement play a central role in the assessment of the graduate schools in Rotterdam, Heidelberg, and Helsinki.²⁴

3.4. Networks and international partnerships of the graduate schools

Relationships to other research groups, departments, and graduate schools constitute a large part of the interdisciplinary work of graduate schools. In the case of international networks, the relationships contribute to the internationality of the schools. EGSH Rotterdam serves as a network itself. The graduate school connects national research schools within the university by offering multidisciplinary and methodological training. International partnerships or networks do not independently exist for EGSH Rotterdam. The

²³ “On the basis of the self-assessment report in 2017, the SB (Supervisory Board) has granted a fixed annual budget.” (EGSH Rotterdam) “Findings from the annual reports factor in the budget planning process.” (DSPS Budapest) Since CEU Budapest is a not-for-profit private university with its own endowment, the university is not funded by any government.

²⁴ “Besides, EGSH has a Programme Board with an advisory role about the quality of the programme.” (EGSH Rotterdam) “Board Members, the Coordinator, and PhD Reps evaluate the Graduate School and make suggestions for future development.” (HGGS Heidelberg) “[...]the evaluation was given the overall objective of assessing the strengths and weaknesses of the structural organisation, management, and funding of doctoral training at the University of Helsinki. [...] In particular, the evaluation was expected to result in recommendations” (HYMY Helsinki).

same applies to DSHSS Leuven, ED SHS Paris-Saclay, and HYMY Helsinki: the graduate schools themselves have no international partnerships. Networking takes place within the participating research groups and doctoral programmes, not on the graduate school level. One example of networks of the doctoral programmes from HYMY Helsinki is the Doctoral Programme in Political, Societal and Regional Change which is part of FRRESH, a Finnish-Russian network for Russian and Eurasian Studies in Social Sciences, offering systematic multidisciplinary training by and for a cross-national research community. Another is the Doctoral Programme of School, Education, Society and Culture, which is part of the multidisciplinary, international research network JustEd (Justice through education in the Nordic Countries). Both networks are international as well as profit from an interdisciplinary approach. DC Loughborough reports about international exchanges with India, Australia, Italy, and Ghana.

Exchange agreements constitute the international partnerships of HGGG Heidelberg. The graduate school is oriented towards Latin America and maintains partnerships with universities in Cuba, Venezuela, and Bolivia. Within the university, HGGG Heidelberg maintains close ties to other institutes and faculties at RKU Heidelberg, who send the doctoral candidates for either the entire programme or for specific seminars. The network of GSSR Warsaw is focused on the invitation of international researchers to teach in the graduate school. Through programmes like Erasmus+ and Artes, student mobility international partnerships are maintained. The network of GSGAS Leipzig spreads across extramural research institutes, and partnerships with international universities, such as in Addis Ababa, Ghent, London (LSE), Montreal, New Delhi (JNU), Otago, Paris (PSL), Roskilde, Wien, Wrocław, Santa Barbara (UCSB), Seoul (Sogang), Stellenbosch, Sydney, Taipei, and Yaoundé. It relies, among other resources, on the Erasmus+ scheme. In addition to the cooperation agreements managed by the academic units of CEU Budapest, DSPS Budapest has memberships in international networks as the European Graduate Network and the European Consortium of Political Researchers. Additionally, it has Erasmus agreements and bilateral agreements with universities in Italy and Germany.

4. Doctoral candidates

The doctoral candidates are the basis of graduate schools. This section concerns everything related to this group, with a special focus on internationality, interdisciplinary aspects, and intersectorality. This section starts with a look at how potential candidates can be integrated into a graduate school and then turns to the recruitment of candidates, application process, and selection procedures. Funding is crucial for obtaining a doctorate, and graduate schools often lack the means to fund their doctoral candidates. Accordingly, different forms of support offered by the graduate schools are considered. Furthermore, this section presents the practices and methods of the graduate schools to increase internationalization and intersectorality of their doctoral training.

4.1. Potential candidates

Before focusing on the practices concerning doctoral training, the involvement of potential candidates is considered. The stage after graduation and before starting as an official doctoral candidate is crucial for a successful application and eventual entry into working as a young researcher. GSGAS Leipzig offers a scholarship programme for master's students preparing their doctoral projects. In addition to the financial support, the students are assigned to a mentor, attend the course programme, and gain insight into the approach of GSGAS Leipzig. At Loughborough U, the Institute of Philosophy and Sociology of the Polish Academy of Sciences, and to some extent U Paris-Saclay, one function of the master's programmes is to prepare the students for doctoral research. Promising candidates that are still lacking background knowledge are sent to the MA programme. Sometimes within doctoral programmes of DSHSS Leuven, an individual pre-doc programme is offered. A prospective supervisor is in charge of the tailor-made programme, which can consist of additional classes, such as methodology or conceptual background, or working out an elaborated research proposal. Even though DSPS Budapest is not offering a preparatory programme, the first year of the doctoral studies is dedicated to introductory courses and seminars preparing probationary candidates for a comprehensive exam, which they need to pass in order to advance to a regular doctoral candidate position. The graduate schools in Rotterdam, Heidelberg, and Paris-Saclay do not offer the possibility to participate in a preparation period before the doctorate.

4.2. Recruitment, application process, and selection

Recruitment

A database or list of universities, other research institutions, and academics in the respective field is a helpful tool for recruiting new candidates. The graduate school in Heidelberg, as

well as the schools in Leipzig and Budapest, send out calls for applications via their contact lists. The DSPS Budapest stresses the advantages of such contact databases:

“This database allows us to have a rough understanding of our wide-ranging networks, and to be able to use these networks for the purposes of recruitment and outreach. [...] Emails encourage the contacted individuals to circulate the call for applications in their networks, and to encourage talented MA students to apply to our PhD program.” (DSPS Budapest)

Besides international recruiting and the advantage of personal contacts and recommendations, the databases are a tool to gain an overview as well as to expand the networks of the graduate schools.

Furthermore, the advertisement on their own as well as external websites, job platforms, and newsletters is quite common. The graduate schools in Loughborough and Budapest named the job portal www.jobs.ac.uk as a well-known international recruitment website. HGGG Heidelberg and GSGAS Leipzig use the platform of the German Academic Exchange Service to advertise. In France, many graduate schools are on a common national platform (www.adum.fr) which provides all kinds of information for potential doctoral candidates. Other forms of recruitment mentioned were posters and information brochures about the graduate school as well as appearance on webinars, at fairs, and at university open-house days.

It is striking that the thematic graduate schools rely on personal contact for recruitment. Within the umbrella organization, recruitment only plays a marginal role presenting the graduate school on a website, at fairs, or via a brochure. The participating research groups and doctoral programmes each are responsible for recruiting new candidates, and the umbrella schools merely support them.

Application

Looking at the application process, there is proof, once again, of the distinction between umbrella organizations and thematically oriented graduate schools. Even though interested candidates can apply directly at EGSH Rotterdam, they need to be adopted by a full professor working at one of the involved faculties as well. In general, the candidates apply through the participating departments and not through EGSH Rotterdam. At KU Leuven, the graduate school provides information on the application processes, but the candidates apply through the participating faculties or principal investigators. In the case of ED SHS Paris-Saclay, the homepage of the university provides general information about the application for doctoral studies with links to pages. ED SHS Paris-Saclay publishes the calls for candidates and facilitates the contacts between prospective candidates and supervisors.

The dissertation projects are then evaluated by the participating research entities. A university-wide application website organizes the submission of applications. Before this official application, the agreement on a subject and a supervisor is necessary. HYMY Helsinki is not involved in the application process either. There are general application criteria for the U Helsinki, supplemented by criteria of the respective doctoral programmes. HYMY Helsinki provides contact information of the participating doctoral programmes and links to the general application rules on their website, helping potential candidates to understand the different steps of the application process, for example finding a supervisor:

“A good starting point for finding a potential supervisor at the University of Helsinki is TUHAT. TUHAT is the University’s research portal where UH researchers update their latest publications and other activities. Under ‘Research units’ you can find faculty-specific lists of principal investigators. You can also type in appropriate keywords in the Search engine in TUHAT to find principal investigators and research groups within your field. Please also note that many research groups have their own websites and it is worth looking into these as well.” (HYMY Helsinki)

DC Loughborough has no function in the application process either – the participating departments are responsible. It shows that the bigger graduate schools in Rotterdam, Leuven, Paris-Saclay, Loughborough, and Helsinki do not have much influence on recruiting neither on the application process. Applications are not directed to the graduate schools but to the participating institutions, programmes, and/or supervisors. The role of these graduate schools is restricted to providing information about the doctoral programme(s) and the application process and referring to the responsible institutions. The situation in the thematic graduate schools of Heidelberg, Warsaw, Leipzig, and Budapest is different. The interested candidates apply directly to the graduate school, which is responsible for organizing the application process and defining the application criteria. At CEU Budapest, the actual application process (gathering and sorting applications) takes place through a centralized system at the university (i.e. there is a recruitment office that manages the applications for all programmes in the first stage). However, in the next stage, the graduate school takes responsibility for the selection of candidates.

The requested application documents are quite similar: a curriculum vita, transcripts and master’s diploma, letters of recommendation, and proof of English proficiency. Sometimes proof of funding, a secured supervision agreement, statement of purpose, and summaries of previous academic work are required. When it comes to the research proposal, the findings differ. In some graduate schools, such as HGGs Heidelberg, DC Loughborough, GSSR Warsaw, GSGAS Leipzig, HYMY Helsinki, and DSPS Budapest, the research proposal is, in addition to excellent profile and a supervision agreement, the most important component

of the application documents. At the involved doctoral programmes of EGSN Rotterdam and DSHSS Leuven, there is additionally the opportunity to work out the research proposal with the supervisor²⁵ or to respond to a call for application on a suggested topic. The latter is possible at ED SHS Paris-Saclay as well.

²⁵ At EGSN Rotterdam, this is an exceptional case.

Admission criteria and selection

In the admission and selection processes, previous study performance, academic orientation, internationalization, as well as the interdisciplinary nature of the projects are possible decisive categories. Mentioned by almost every graduate school, the presence of a master's degree or an equivalent university degree is a prerequisite for admission. Some additionally require excellent grades, such as B+ or similar. For DSPS Budapest, an important admission criterion is an academic background in political science or a related field. In France, doctoral candidates have to prove that they are under a social security scheme and are funded for the doctorate period. Criteria for admission include:

“the strength of the research proposal and the interest in interdisciplinary work” (HGGH Heidelberg) and “motivation, [...] research proposal; English proficiency test score”. (DSHSS Leuven)

Concerning admission criteria of the participating doctoral programmes, HYMY Helsinki mentions scientific significance and appropriateness for the dissertation project as well as feasibility and suitability to the profile of the respective doctoral programme.

Coming to the selection process, only the thematic graduate schools in Heidelberg, Warsaw, Leipzig, and Budapest are directly responsible for the selection of the candidates. In all those graduate schools, a selection committee guarantees a fair selection process separated from individual preferences. A presentation of the research project, together with an interview, is part of the selection process in Heidelberg and Warsaw. A scoring system that resulted in a ranking was developed at CEU Budapest in order to make the applications comparable. The bigger umbrella institutions in Rotterdam, Leuven, Paris-Saclay, Loughborough, and Helsinki are not responsible for the selection of the candidates; the participating faculties, departments, research groups, or doctoral programmes fulfil this task.

External applicants²⁶ – especially from abroad – contribute to the international and interdisciplinary nature of graduate schools. None of the examined graduate schools discriminate between internal or external candidates in terms of admission. Some mention the bureaucratic effort required when it comes to enrolling candidates from outside the EU. Furthermore, external candidates need to be assigned to a supervisor, which might not be that easy because the supervisors do not know the candidate personally, as described by GSGAS Leipzig:

²⁶ With “external applicants”, we are referring to potential candidates who did not receive their final degree from the higher education institution where they are applying.

“There is a sort of ‘psychological barrier’ that we can observe with some professors when it comes to applicants from abroad without any previous contact. Currently, thanks to an externally funded programme, we are able to invite candidates for a few days, and this turns out to be a very reliable instrument, because the prospective supervisor and the PhD candidate can meet in person and work for while together. On that basis they make a decision on further cooperation after that short term stay and in most cases this results in a very successful supervision.” (GSGAS Leipzig)

Candidates are invited for interview or even a short work period with the potential supervisor. In most of the graduate schools or the participating programmes, meeting the candidate in person remains the preferred option to react to this issue.

After admission

At all graduate schools, the first steps after admission include some registration. In addition to the registration at the graduate school, new candidates in Leipzig and Heidelberg need to register with the faculty. The development of a personal study plan helps to structure the first year(s) for the doctoral candidate. The study plan at EGSN Rotterdam consists of a Training and Supervision Plan (TSP) for the entire doctoral period. At GSSR Warsaw, the plan is made for one year at a time during the whole period of study and includes activities in one or more of the Institute’s research projects, planned grant applications, attendance to conferences, and in the first year details on an article draft for publication in a journal. After registration and contacting the supervisor, the doctoral candidates at HYMY Helsinki are instructed as well to develop a study plan. Information material such as handbook and course guides (EGSN Rotterdam, DC Loughborough), welcoming folders (GSGAS Leipzig), and welcome material (DSPS Budapest) are one way of preparing the doctoral candidates. In order to involve the candidates into the new environment and to introduce them to their peers, some graduate schools organize introductory events. At HGGN Heidelberg, the introductory activities are a welcome event, an initial workshop to meet peers and to be informed about the graduate school, and a colloquium to present their project. In the graduate schools of KU Leuven and Loughborough U, the introduction programme focuses on preparation of the candidates for work in academia. A module on scientific integrity is mandatory for all new doctoral candidates at EGSN Rotterdam, DSPS Leuven, and DC Loughborough, where an introductory programme on topics like research ethics, research development, research management, and supervision is offered. The welcoming event at GSGAS Leipzig is organized as a semester opening in October with the involved professors and doctoral candidates. CEU Budapest offers a pre-session orientation event for all new students, including doctoral candidates. Additionally, DSPS Budapest organizes an

orientation week, a welcome reception, and introductory classes. At GSSR Warsaw, one of the first steps is to set a target agreement for the first year:

“They prepare an individual study plan – a document listing their plans for the year and beyond – including activity in the research project, courses to be attended, grant applications planned, planned attendance of summer schools and details of a draft article to be prepared by the end of the first year with the aim of publication in a specified journal.” (GSSR Warsaw)

When it comes to the membership status of doctoral candidates at the graduate schools, the differentiation between the umbrella organizations and the thematically oriented graduate schools is evident. At the umbrella organizations in Rotterdam, Leuven, Paris-Saclay, Loughborough, and Helsinki, admission as a doctoral candidate automatically means obtaining a membership status at the graduate school. In Leipzig, Heidelberg, and Warsaw doctoral candidates do not have to be a member of the respective graduate schools. At HGGG Heidelberg, interested doctoral candidates apply for membership and, if shortlisted, are invited to an interview. If successful, they are invited to a three-year membership at HGGG Heidelberg. Oppositely, at CEU Budapest all doctoral candidates are associated with some academic structure, whether it be the graduate school or a department, which is part of the school.

4.3. Funding

A crucial part of the doctorate is funding. An uncertain financial situation increases the chances of dropout.²⁷ At the umbrella organizations in Rotterdam, Leuven, and Helsinki, the member faculties, institutes, departments, or research groups have resources for scholarships or employment for some doctoral candidates. The faculties and institutes related to EGSN Rotterdam have little funding options for their doctoral candidates, but since EGSN Rotterdam does not have background information on the doctoral candidates there is no statistical data on funding sources available. DSHSS Leuven itself does not offer funding opportunities. The doctoral candidates can rely on internal funding sources via vacant positions, or options funded by external organizations and companies. Nevertheless, 38.3 per cent of the doctoral candidates at DSHSS Leuven rely on other funding options than scholarships or employment at the university. U Paris-Saclay offers around 20 three-year fellowships (salaries) for the doctoral candidates from ED SHS Paris-Saclay. Doctoral

²⁷ Booth, Alison L., and Stephen E. Satchell. 1995. The Hazards of Doing a PhD: An Analysis of Completion and Withdrawal Rates of British PhD Students in the 1980s. *Journal of the Royal Statistical Society* 158:297–318. Groenvynck, Hans, Karen Vandeveld, and Ronan van Rossem. 2013. The PhD track. Who succeeds, who drops out? *Research Evaluation* 22:199–209. van der Haert, Margaux, Elena Arias Ortiz, Philippe Emplit, Véronique Halloin, and Catherine Dehon. 2014. Are dropout and degree completion in doctoral study significantly dependent on type of financial support and field of research? *Studies in Higher Education* 39:1885–1909.

fellowships may also come from thematic research programmes or external organizations or businesses. The fellowships allow the candidates to devote almost all their time to their research, and may be capped by a supplementary grant for some complementary activity such as research assistantship or a few hours of teaching. At ED SHS Paris-Saclay, 40 per cents of the doctoral candidates enjoy a doctoral-related funding, most often either a three-year full-time fellowship or an assistant researcher and instructor position, 60 per cents are in other salaried employments. DC Loughborough funds a small number of studentships with others being funded by the graduate schools within Loughborough U or various UK Research Councils through partnerships. HYMY Helsinki is responsible for allocating the budget for salaried doctoral candidates positions to the participating doctoral programmes. Together with salaried positions funded by research projects, about 14.5 per cent of all doctoral students at HYMY Helsinki have salaried positions. The remaining students rely on grant-funded positions or are self-funded through employment outside academia.

The funding for doctoral candidates at HGGG Heidelberg is very limited, with only a few positions being offered by the university and through scholarships from the German Academic Exchange Service. Therefore, candidates apply for scholarships from external organizations and more than half of the candidates (52 per cent) rely on scholarships outside the university. At GSGAS Leipzig, around 70 per cent of all candidates are funded by scholarships from agencies external to the university. But since these scholarships are for three years only, with most of the dissertations being completed within four to five years (due to the lengthy field work in particular), the overall rate of funded doctoral candidates enrolled with the GSGAS Leipzig drops to 35 per cent. Additionally, GSGAS Leipzig distributes some means from third-party funding to support particularly foreign doctoral candidates with short-term scholarships. At both graduate schools, about one-third (35 per cent for HGGG Heidelberg and 30 per cent for GSGAS Leipzig) of the doctoral candidates are employed at the university as scientific staff, while the other candidates have grants and a student status. At GSSR Warsaw, half of the doctoral candidates are self-financed, the Ministry of Science and Higher Education funds another one-third, and 17 per cent are funded by external scholarships. A university-wide competitive scholarship programme is offered at CEU Budapest. All applicants for a doctoral programme at CEU Budapest are automatically considered for the scholarship.

In summary, funding of doctoral candidates stems from employment and scholarships offered by HEIs, research projects of the supervisor, external scholarships, or employment outside the university. With the exception of CEU Budapest, none of the graduate schools

has the possibility to fund all doctoral candidates. However, these graduate schools provide different means to support their doctoral candidates with finding funding opportunities. Online advertisement such as search engine results, information about scholarships, and announcements of scholarships or open positions are used by the graduate schools in Rotterdam, Heidelberg, Loughborough, Leipzig, Helsinki, and Budapest. Individual consulting for finding and applying for funding is offered in Heidelberg, Leipzig, and Budapest. GSGAS Leipzig describes the support as follows:

“We advise our members individually and support the PhD candidates with preparing their applications for foundations: discussing the projects within the framework of colloquia and working groups, providing recommendation letters, and training them for the interviews.” (GSGAS Leipzig)

Another option is to offer education on fundraising. At KU Leuven, prospective doctoral candidates can attend information sessions on that topic during their final master’s year. HYMY Helsinki make use of the Finnish funding tool “Aurora” and offers courses in grant writing, and CEU Budapest organizes regular sessions on acquiring external funding.

4.4. Internationalization

Internationalization is a key element in the European agenda on doctoral training. The Salzburg principles address international mobility of doctoral candidates.²⁸ The aim is to increase mobility through joint programmes and cotutelle doctorates. The mobility is not only to prepare the candidates for an international job-market but also to encourage international networking between HEIs and researchers.²⁹ Another part of internationalization is recruiting and accepting international doctoral candidates.³⁰

International advertisement

International advertisement for the doctoral training is closely linked to the recruitment of candidates from abroad. The graduate schools mentioned different possibilities regarding international advertisement. EGSB Rotterdam refers to their homepage, which provides a lot of information such as online brochures on the participating programmes and presentations of the doctoral candidates (“meet our PhD’s”) as well as on research groups and staff members. International recruitment is, among other regions of the world, focused on China. EGSB Rotterdam holds visiting doctoral workshops in China and rewards their staff members if they recruit a candidate from China with a Chinese Scholarship Council

²⁸ Koch Christensen, 2005. Bologna Seminar.

²⁹ European Commission. 2011. Seven Principles for Innovative Doctoral Training.

³⁰ European University Association. 2016. Doctoral Education – Taking Salzburg Forward. Implementation and New Challenges. Brussels: European University Association.

(CSC) grant. A focus on a respective region can be found at HGGG Heidelberg as well. While the graduate school attracts doctoral candidates from all world regions, it is also advertising scholarships for Cuban doctoral candidates and plans agreements for a regular exchange programme with Cuba, Bolivia, and Venezuela. Additionally, HGGG Heidelberg describes a positive example of the influence of direct contact:

“Direct emails to the universities appear to have the best effect so far as administrators and professors in other countries make their students aware of our call for applications. The number of applications has risen sharply with the email list we compiled.” (HGGG Heidelberg)

The positions at HGGG Heidelberg are advertised through an email list and the external offices of RKU Heidelberg in Asia, South America, and North America. DSHSS Leuven has no responsibility in regard to advertising the doctoral programmes; this is taken care of by the participating faculties. In the case of ED SHS Paris-Saclay, international advertisement is a task of the supervisors, which post open positions on a French recruitment website. At Loughborough U, many (international) doctoral candidates apply. Advertisement abroad is only considered if the project is related to a special region outside the UK.³¹ GSSR Warsaw promotes itself at international recruitment fairs in (on average) three countries abroad. GSGAS Leipzig sends out brochures about the doctoral training programmes. Furthermore, international collaborators such as universities and research institutions act as networks for further advertisement. GSSR Warsaw and DSPS Budapest mention relying on word of mouth as an option for advertisement as well. Both graduate schools ask in their application form about the source of information that made the candidate consider applying for their doctoral programmes. Most frequently, applicants mentioned that they heard about the programme from a member of the graduate school or university.

Website language

As stated by the European University Association, the integration of international candidates plays a crucial role in terms of internationalization.³² One possibility is to make information about the graduate school accessible for all, for example through an English website. The examined graduate schools in Rotterdam, Leuven, Loughborough, Leipzig, and Budapest decided for website solely in English. Other websites are bilingual – HGGG Heidelberg in German and English, GSSR Warsaw predominantly English with some Polish – or even

³¹ “They are not advertised abroad unless the project requires knowledge of a specific overseas country.” (DC Loughborough)

³² European University Association. 2016. Doctoral Education.

trilingual like at HYMY Helsinki in Finnish, Swedish, and English. The website of ED SHS Paris-Saclay is mainly in French, with some pages translated into English.

Joint degrees

Joint degrees are doctorates that comprise and are run at two (or more) universities. They include research stays at both (all) involved HEIs. International cotutelle de thèse agreements are one form of joint degrees: doctoral candidates could earn a shared doctoral degree and title from two universities in different countries. ED SHS Paris-Saclay describes the advantage of such degrees briefly:

“A framework to encourage the mobility of doctoral researchers, develop international scientific cooperation and strengthen the international dimension of doctoral schools.” (ED SHS Paris-Saclay)

The interviewed graduate schools report different strategies for dealing with joint degrees. EGSHE Rotterdam is not involved in processes of joint degrees; the same holds true for HGGW Heidelberg and ED SHS Paris-Saclay. In Rotterdam and Heidelberg, the participating faculties organize such agreements independently of the graduate schools. For ED SHS Paris-Saclay, a dedicated office connected to the doctoral college deals with the cotutelle agreements. Next to this group of graduate schools that are not involved in the process, there are graduate schools organizing the joint arrangements on individual request, including DSHSS Leuven, GSSR Warsaw, GSGAS Leipzig, and HYMY Helsinki. The administrative effort needed for managing joint agreements is rather high, as noted by GSGAS Leipzig and HYMY Helsinki.³³ DSHSS Leuven has similar experiences with joint degrees, commenting that they account for a large part of the administrative work of the school since they require many negotiations between the respective universities. To avoid the time-consuming negotiations, GSGAS Leipzig has even arranged framework agreements with two universities (in Stellenbosch and Sydney), which make the individual process towards cotutelle easier. ED SHS Paris-Saclay as well worked out a framework agreement, with Georgia State University (USA). If the respective participating universities agree to such a framework, the establishment and verification of the joint degree by legal services and the faculties does not have to be reworked for every new candidate. Through their agency function, the graduate schools in Leuven, Warsaw, Leipzig, and Helsinki take over a lot of work from the faculties. The graduate schools in Loughborough and Budapest do not offer joint degrees.

³³ “Yes, it is in general an individual process and it need a lot of negotiations between the two faculties.” (GSGAS Leipzig) “We have had some cotutelle agreements and we have found them administratively quite heavy.” (HYMY Helsinki)

International mobility

International mobility such as conference travels, fieldwork, and research stays during the doctorate is emphasized in connection with increasing internationalization. Offering means of support helps to dismantle barriers. At RKU Heidelberg, all doctoral candidates can apply at a dedicated office (Graduate Academy) for research, conference, or workshop travel funds.³⁴ DSHSS Leuven offers all enrolled doctoral candidates one conference allowance as well as allowance for a longer stay abroad. Conditions for both allowances are that the candidates applied before to other funding bodies and were unsuccessful. DC Loughborough offers travel allowances for their doctoral candidates. Furthermore, international exchanges with international researchers coming to Loughborough or doctoral candidates from Loughborough going abroad are supported. GSSR Warsaw provides mobility support through programmes such as Erasmus+, Fulbright, and Max Planck study group. The graduate school itself funds conference fees (without travel and accommodation) and fieldwork. An annual travel budget for conference, fieldwork, and research trips is available for the doctoral candidates at GSGAS Leipzig. Additionally, with mobility programmes funded by the German Academic Exchange Service (2014–2019), all doctoral candidates can be supported with travel and subsistence allowances. Since international mobility is a compulsory part of the doctorate at HYMY Helsinki, the graduate school has an annual budget to offer research travel grants for the doctoral candidates. DSPS Budapest provides financial support for various research and mobility activities for their candidates, including conference travels, short field visits, research stays at universities abroad, summer and winter school attendance, and stays at partner universities to teach for one semester or one academic year. Research stays at other universities are a common practice at DSPS Budapest; almost all doctoral candidates are doing a semester abroad, usually in the second year or third year.

4.5. Intersectorality

Intersectoral mobility of doctoral candidates is compelling since, on the one hand, employment within academia is limited, and, on the other hand, economies are dependent on highly skilled professionals. The before-mentioned Salzburg principles on doctoral training take up this issue by declaring the need to prepare doctoral candidates for an

³⁴ For more details, visit https://www.graduateacademy.uni-heidelberg.de/stipendien/zuschuesse/reisekosten_en.html (accessed on 20 June 2018).

employment market outside academia and by stressing the responsibility of universities to support the career development of young researchers.³⁵

A doctorate in the field of Humanities and Social Sciences allows a broad field of employment possibilities to be targeted. The most obvious is an academic career. However, there are also many employment possibilities outside academia. The interests of the doctoral candidates of HGGH Heidelberg cluster around journalism, publishing houses, politics, private sector, think tanks, school teaching and NGOs. DSHSS Leuven and DC Loughborough mention broader areas in the private sector. Careers for doctoral candidates in Humanities and Social Sciences from ED SHS Paris-Saclay are to a great extent in research, mentioning research positions outside academia such as in-company researcher, entrepreneur in innovative sectors, consultant, or scientific mediator. Other job opportunities outside academia include working as an analyst, advisor, policy maker, and manager in the public sector, in NGO's, the commercial sector, in advocacy groups, or in the government sector.

In order to pave the way for employment of the doctoral candidates after graduation, career preparation and guidance is already offered during the doctoral process. EGSN Rotterdam organizes career days with presentations, workshops, and individual consulting opportunities:

“EGSN supports PhD candidates and doctoral supervisors specifically by organising an annual PhD career day. The aim of this event is to promote PhD candidates thinking in time about their next step in career, inside or outside the walls of academia. Presentation about research outcomes regarding career paths of doctorate holders [...] but also several workshops about skills and the labour market are given.” (EGSN Rotterdam)

At RKU Heidelberg, KU Leuven, DC Loughborough, U Helsinki, and CEU Budapest, dedicated career offices or career advisors are in place to provide individual advice and to organize workshops, courses, and other events concerning career development. Career courses and workshops offered by the different institutions are inter alia focused on entrepreneurship and career development; fostering presentation skills, public speaking, project management, teamwork, networking, and language competences; as well as providing guidance for writing job applications. Another activity for preparing doctoral candidates for a career are alumni talks. HGGH Heidelberg and DSHSS Leuven offer such events, where former doctoral candidates share their experiences about professional life after graduation. Career preparation for doctoral candidates at DSHS Budapest is similar to

³⁵ Koch Christensen, 2005. Bologna Seminar.

ED SHS Paris-Saclay, which mainly focuses on research and teaching careers at universities. For example, the Global Teaching Fellowship Program at CEU Budapest helps candidates to gain teaching experience by delivering courses at universities abroad for one semester or one academic year.

We asked the participating graduate schools which skills should be developed for intersectoral mobility in order to get their opinion on the abilities that are focused upon. At DSHSS Leuven, a special programme helps doctoral candidates to develop self-awareness for the skills they already have and detect the ones that need further enhancement:

“PhD’s gain a lot of skills during their PhD programme, without explicitly knowing or experiencing this. Via the Individual Development Plan and the VITAE Researcher’s Development Framework, they can ‘mark off’ these competencies they have achieved or those that still need further improving.” (DSHSS Leuven)

The skills they refer to as necessary for diverse jobs are creativity, perseverance, critical thinking, engagement, networking, basis management, and business administration knowledge. HGGG Heidelberg and ED SHS Paris-Saclay refer to the ability to apply the topic of the doctorate to a broader field, to present it to a non-expert audience, to articulate inter- and transdisciplinary aspects of the work, or to network with people from other fields. Following that same line of thought, GSGAS Leipzig stresses the competence to understand and explore new topics and issues and DSPS Budapest points out the ability to synthesize complex ideas. Other skills mentioned were project management, result-orientated working, business skills, and working independently.

5. Course of the doctorate

In the following section, the process of obtaining a doctorate within graduate schools will be outlined. The approaches to supervision are examined together with a presentation of which roles the graduate schools are playing within the supervision process. The results from a document analysis of the supervision agreements provide a deeper insight into the field of supervision. Additionally, the chapter examines the curriculum of the graduate school, including a document analysis of the course programmes and a section on requirements for the thesis, the duration, and the final exam.

5.1. Supervision

New forms of supervision are increasingly replacing the traditional one-to-one format. At some graduate schools, a redesign of the supervision is more cautious than in others. HGGS Heidelberg encourages the doctoral candidates to find a co-supervisor or mentor. The same holds true for KU Leuven, GSSR Warsaw, and GSGAS Leipzig. Here, the doctoral candidates have the possibility to look for more co-supervisors. At ED SHS Paris-Saclay and DSPS Budapest, one-to-one supervision is still the most common practice. The special characteristic of the doctoral process at DSPS Budapest lies in the fact that in the first year probationary doctoral candidates rely on a track representative and a temporary supervisor. Both provide mentoring during this first stage of the doctorate. After passing the examination at the end of the first year, the candidates are assigned to a supervisor in line with the research topic and faculty availability. The assignment of further supervisors is practical for interdisciplinary research projects, as stated by EGSN Rotterdam and KU Leuven. Especially in terms of interdisciplinary projects, it makes sense to have supervisors from the respective disciplines. The doctoral candidates benefit from supervisors introducing different approaches, methods, and views concerning the research project. Moreover, co-supervision provides the opportunity to include junior professors into the supervision process, as done at ED SHS Paris-Saclay and GSGAS Leipzig. There are other universities where it is usual to have more than one supervisor. DC Loughborough describes the supervision situation:

“Never 1-2-1. There are always 2 supervisors.” (DC Loughborough)

At EGSN Rotterdam, regulations prescribe a minimum of two supervisors, and at HYMY Helsinki, two supervisors and one responsible professor mentor the dissertation project.

The supervisor(s) is/are responsible for following the doctoral candidate’s research project. The supervision involves discussing the progress of the research and other work, providing advice on the contents of the thesis, for example on literature, central theories and

concepts, and methodology, as well as agreeing on work targets. Supervisors are not only mentors during the research but also support funding applications, help with entry into the academic world, for example finding peer-reviewed journals to publish the research findings, and advise on career plans and goals of the doctoral candidate. Some of the duties of the supervisor are taken over by the graduate schools, for examples career counselling.³⁶ Other forms of support for supervisors offered by the graduate schools are the organization of the application and selection process, providing workshops and training, consulting tasks, and advice on finding and applying for funding. The supervisor may benefit from additional advice through colloquia and workshops offered by the graduate schools or on doctoral programme level. At EGSH Rotterdam, DSHSS Leuven, and ED SHS Paris-Saclay interested supervisors can attend a course to improve and strengthen their supervision competences.

Regular meetings with the doctoral candidate and researchers not involved in the project are another form of quality assurance in the supervision process. At DSHSS Leuven, a *supervisory committee* consisting of the supervisor and two other members evaluate the progress of the doctoral project and provide advice. A similar practice can be found at GSGAS Leipzig. The *thesis committee* consists of a supervisor, the chair of the committee, and a post-doc, which meets once or twice a year with the candidate in order to talk about the status of the thesis, the progress of the candidate in the taught part of the programme, and obstacles. At DSPS Budapest, probationary doctoral candidates are assigned a temporary supervisor during the first year. By the beginning of the second year, students are required to nominate three members for their *doctoral supervisory committee* and to name one as their primary supervisor. Candidates are expected to report to the committee on the progress of their research project twice a year. The *comité de suivi individuel* at ED SHS Paris-Saclay has an exceptional position compared to the meeting format at the other graduate schools. In line with a national law, the reports of these individual monitoring committees are mandatory for all doctoral candidates seeking to re-enrol in the third year of doctoral training as well as subsequent years. At least two professors not involved in the supervision meet once a year with the candidate in order to review the progress of the research and to recommend or reject the re-enrolment of the candidate.

³⁶ More information on career preparation and guidance can be found in chapter 4.5 *Intersectorality*.

5.2. Supervision agreement

At the European level, a supervision framework for doctoral training was decided within the Salzburg principles, which are intended to make the relationship between the doctoral candidates and supervisors transparent in terms of content and time:

“The crucial role of supervision and assessment: in respect of individual doctoral candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution (and where appropriate including other partners).”³⁷

The European directive on supervision agreements is exemplified in a document analysis of the transmitted agreements from all partners of the Graduate SPIRIT consortium.³⁸

Supervisors

A very clear statement in almost all agreements is that the thesis supervisor is responsible for providing scientific guidance to the doctoral student throughout the doctoral project. Tasks and responsibilities of the supervisor are defined, including regular professional advice, support for early scientific independence, career development/planning, and quality assurance (regular progress checks). In some agreements, it is stated how often meetings between the supervisor and doctoral candidate should take place (EGSH Rotterdam, ED SHS Paris-Saclay, GSGAS Leipzig, and DC Loughborough). Another often mentioned task of the supervisors is to discuss with the doctoral candidates their career perspectives. For example, KU Leuven states:

“In addition, the (co)supervisor ensures that during his/her training the PhD researcher can also acquire other essential skills that will enable him/her to move on to another job, within or outside academia, after the completion of the doctoral programme.”³⁹

In all agreements, it is evident that good supervision is a precondition for the successful completion of a doctoral thesis, and U Helsinki even engages in a reflection on the difficulties to define “good”:

“Only the student and the supervisor will know what counts as ‘good’: it varies across disciplines, and it varies at different stages of the completion of the PhD.

³⁷ Koch Christensen, 2005. Bologna Seminar, p. 5.

³⁸ First, it can be stated that eight out of nine institutions involved in the consortium have a supervision agreement signed by the persons involved. The exception is CEU Budapest: here the rights and duties of the doctoral students and supervisors are defined in the study regulations. The supervisor needs to submit regular reports concerning the student’s progress to the director of DSPS Budapest.

³⁹ KU Leuven. n.d. Charter of the PhD researcher and the supervisor. Leuven: KU Leuven, p. 2.

But unless this is discussed between the supervisor and the student at least once a year, then it is easy to allow such a big and complex project as completing a PhD to drift. This study plan is designed to help both PhD students and their supervisors to keep track."⁴⁰

As stated above, the traditional supervision model is dissolving. More parties are involved in the supervision process, which is reflected in the supervision agreements. Five of the analysed documents cite next to the supervisor a further person with various terms: promotor (EGSH Rotterdam), secondary supervisor and independent reviewer (DC Loughborough), mentor (GSGAS Leipzig), and co-supervisor (HYMY Helsinki and DSHSS Leuven). The tasks of the additional "advisors" are similar to the duties of the supervisor, but in part include the mediation between the supervisor and doctoral candidate in case of problems. At U Paris-Saclay as well as at U Leipzig, these co-supervisors are often junior professors who are closer to the candidate's area of interest.

At Loughborough U, a secondary supervisor provides additional academic expertise for the research degree programme and an alternative point of contact where the principal supervisor might be temporarily unavailable (similar at CEU Budapest). Next to the secondary supervisor, they add an independent reviewer, who should have sufficient expertise in the field of the student's research programme in order to be able to make an informed judgment on the progress.

An exception to the sharing of responsibilities between the doctoral candidate, supervisor, and institution is GSSR Warsaw. In the agreement, called "study plan", signed by the doctoral candidate and the supervisor only the tasks and duties of the doctoral candidate are mentioned. Neither the role of the supervisor nor the other institutions are defined.

Doctoral candidates

The tasks and duties of doctoral candidates are initially based on all existing agreements on regular reporting obligations (for example performance records, participation in the qualification programme, and further education in terms of transferable skills training) as well as on regular submission of the content of the partial results and submission of a working report.

Some doctoral agreements provide information about the work plan that the various parties must establish before or during the doctorate. The most detailed work plan is that of EUR Rotterdam. The doctoral candidate plans to carry out the tasks assigned to him or her and

⁴⁰ Faculty of Social Sciences. n.d. Doctoral Research Supervision agreement. Notes on the PhD Supervision Agreement. Helsinki: University of Helsinki, p. 1.

to comply with the commitments arising from these tasks. An assessment is made after the first year to see whether, in view of the way the tasks are being performed, the intended aim can be achieved. After the first year, changes may be made to the training and supervision plan for the further duration of the appointment and, if necessary, from year to year. The changes are recorded in the annex to this form and signed by the chairperson of the capacity group, the promotor, the co-promotor, and the doctoral candidate.

At RKU Heidelberg, the supervisor and doctoral candidate must agree upon a time and work schedule, which is adapted to the research topic and the personal situation of the doctoral candidate. Based on this schedule, the doctoral candidate informs the supervisor at regular intervals about the progress of the dissertation project. In the "Individual Study Plan" of GSSR Warsaw, the parties involved in the supervision agreement must provide information about planned attendance at conferences with presentations and summer schools, planned study abroad (also planned any time during the doctoral programme), and other activities (teaching, non-academic activities, etc.). At U Helsinki, the parties involved in the first supervision agreement must prepare a plan for the research over the three years. In all cases, they also prepare a supervision plan for one year and a summary work plan. At Leipzig and Leuven universities, the doctoral candidate, in cooperation with his/her supervisor, establishes a work schedule and chronology for completing the doctoral project.

Further entities

Different entities can be engaged in the doctoral project and the supervision process. Their role is presented in doctoral agreements and can relate to conflict resolution, thesis defence, doctoral programme admission, doctoral training, etc. Contrary to the parties who assume the supervisory function, the representatives of these entities do not sign the doctoral agreement.

In case of conflicts, the doctoral candidate or supervisor may consult an independent ombudsperson (or commission), who acts as an advisory and mediation body (HGGSS Heidelberg, GSGAS Leipzig, and DSHSS Leuven). At U Helsinki, if the student or supervisor encounter difficulties with implementing the agreement, they can contact the doctoral programme coordinator for assistance. The doctoral programme coordinator should be contacted in the first instance. The ombudsperson/ombudsperson commission serves, in addition to as a mediator in conflict cases, as a direct contact for scientists bringing forward

allegations of scientific misconduct (in Leuven there is a commission on scientific integrity).⁴¹

Another important entity within some agreements is a doctoral committee (DSHSS Leuven), a thesis committee (GSGAS Leipzig), or an individual monitoring committee (ED SHS Paris-Saclay). These committees are responsible, in conjunction with the (co-)supervisor, for monitoring the progress of the doctoral research and the doctoral programme. They make sure that the doctoral process is being correctly followed.

The analysis indicates how the European recommendations are implemented on the individual level of the graduate schools. It is also noticeable here that different terms are used for the same processes. Supervision responsibilities are not only shared between the doctoral candidates and supervisor but also other people and bodies are involved in this process. The other parties help to ensure quality assurance of the supervision, as this is not only an arrangement between the professor and doctoral candidate that depends on him/her any more. The supervision agreements of the graduate schools are defined from different points of view: terms and roles (EGSH Rotterdam), the profile of a good doctoral researcher and supervisor (DSHSS Leuven), responsibilities and duties (ED SHS Paris-Saclay), rights and obligations (GSGAS Leipzig), and what they agree to (HYMY Helsinki). However, in the end, the goal of the supervision agreements is to make the rights and obligations of the doctoral candidates and supervisors more transparent and to define milestones of the doctoral process. The question remains open whether the existing supervision agreements are considered as a public law contract, which must be concluded in accordance with the requirements of higher education law. Do these documents grant any legally enforceable rights or do the agreements only have the function of a mutual understanding, which demand liability?

5.3. Curriculum

In contrast to the traditional doctorate, the doctorate in graduate schools is in many cases structured according to a curriculum. That means that in addition to the research project, which leads to the doctoral thesis, the graduate schools also offer a taught part for the doctoral candidates. The design, focus, and requirements of the curriculum differ from one graduate school to another. A document analysis of the course programmes of the graduate schools completes the evaluation of the survey.

⁴¹ Since all parties are responsible for maintaining standards of good scientific practice to ensure good scientific practice.

The kind of courses offered provide a first distinction between the graduate schools. The umbrella organizations in Rotterdam, Leuven, Loughborough, and Helsinki provide courses on transferable skills and methodological training for their doctoral candidates. The involved research groups, doctoral programmes, research schools, or faculties organize discipline-specific courses. The course programme of EGSH Rotterdam is structured according to the stage of the doctorate: in relation to the stages, beginning, advanced, and final courses on philosophy of science, soft skill courses, methodology courses, and process courses can be attended. A similar structure is utilized by DC Loughborough in the "Doctoral College Handbook": they provide a broad range of courses between foundational, consolidating, transition, specialist, and developmental activities:

"The Doctoral College offers a comprehensive programme of training opportunities to support the professional development and employability of Doctoral Researchers."⁴²

Besides soft skills, the doctoral candidates at DC Loughborough can choose courses on statistical skills. The doctoral college unites all doctoral activities at Loughborough U, therefore the courses offered can be attended by all doctoral candidates. KU Leuven publishes one course programme for all doctoral candidates within the three doctoral schools. The courses are categorized into thematic fields: personal effectiveness, communication and collaboration, research and education, safety, health and environment, career development, and leadership and management. Depending on the course, the target group can be doctoral candidates from all doctoral schools or candidates from one school. In contrast to the courses at EGSH Rotterdam and DC Loughborough, at KU Leuven different entities of the university contribute to the programme, such as the human resource department, language institute, doctoral schools, educational development unit, research coordination office, libraries, and career centre. DSHSS Leuven provides, for example, courses on scientific posters, presentations for public engagement, writing articles for international journals, and peer review. HYMY Helsinki as well is concerned with transferable skills courses. The course programme is published on the homepage and includes courses such as academic writing, research ethics, and grant writing. An exception to this pattern is ED SHS Paris-Saclay. Together with the research units attached, ED SHS Paris-Saclay provides thematic doctoral seminars, conferences, and specialized methodological and technical training. The doctoral college organizes transferable skills training, which is open to all doctoral candidates at U Paris-Saclay. The transferable skills courses at the graduate schools range from academic writing, organization, presentation and communication,

⁴² DC Loughborough. 2017. Doctoral College Handbook. 2017-18 Academic Year. Loughborough: Loughborough University.

publishing, teaching and supervising, career paths and strategies, and specific methods or evaluation programmes. Apart from transferable skills courses, umbrella organizations are in most cases not responsible for developing a curriculum.

The course programmes of the thematic graduate schools in Heidelberg, Leipzig, Warsaw, and Budapest are focused on research-specific training. HGGG Heidelberg offers seminars on research methods, an annual conference organized by first-year doctoral candidates, an interdisciplinary research colloquium where the candidates can present their research projects, and some soft skills courses. Furthermore, the doctoral candidates at HGGG Heidelberg can attend courses from other graduate schools and departments, such as Transcultural Studies or American Studies. Transferable skills courses are provided by the Graduate Academy and are open to all doctoral candidates at the RKU Heidelberg. The curriculum of GSGAS Leipzig includes foundational courses introducing the research agenda and relating it to the individual research project as well as interdisciplinary thematic research seminars. Interdisciplinary colloquia and working groups offer the possibility to present and discuss the research project with other doctoral candidates from GSGAS Leipzig. Annual winter and summer schools and soft skills workshops complete the course programme. Like at HGGG Heidelberg, the main actor in offering transferable skills workshops to all doctoral candidate is the Research Academy Leipzig, an umbrella organization at U Leipzig. The course programme at GSSR Warsaw is composed of courses in Philosophy and Sociology, which convey profound methodological and theoretical knowledge and are open for doctoral candidates within the respective discipline, general courses for all candidates, and courses from the MA programme. At DSPS Budapest, the majority of courses is linked to the five tracks of the programme.⁴³ Within the tracks, core courses and courses on advanced topics are offered. Apart from that, the doctoral candidates at DSPS Budapest can take courses on methods and research design, prospectus seminars, and courses from other tracks or departments. HGGG Heidelberg and GSGAS Leipzig offer a small range of transferable skills workshops but refer to other institutions at the university as provider for such courses. Furthermore, HGGG Heidelberg, GSGAS Leipzig, and DSPS Budapest offer different formats for the doctoral candidates to present their research project, exchange and discuss with their peers, for example colloquia, working groups, and conferences. In contrast to the umbrella organization, the thematic graduate schools develop a curriculum for the doctoral candidates based on research-specific training.

⁴³ For more information on the tracks see chapter 2.3 *Academic setting*.

Moving on now to consider the amount of compulsory courses or rather the required European Credit Transfer System (ECTS) credits. Some of the graduate schools do not have any authority to set the number of mandatory courses; this includes EGSN Rotterdam, DSHSS Leuven, DC Loughborough, and GSSR Warsaw. In Rotterdam and Warsaw, the number of courses is individually determined in consultation with the supervisor and set down in a written agreement; recommended are 30-45 ECTS credits. In Leuven and Loughborough, the faculty or department regulate the details of the curriculum. ED SHS Paris-Saclay and HGGG Heidelberg stipulate a number of courses, but do not use the ECTS classification. During the course of the doctorate, candidates at ED SHS Paris-Saclay are required to take 100 hours of doctoral training, ideally half of the hours for transferable training offered by the doctoral college and the other half for disciplinary training within the graduate school or the research units. Besides, all doctoral candidates at ED SHS Paris-Saclay have to attend a seminar on research ethics. At HGGG Heidelberg, participation and presentation in the research colloquium, a seminar on interdisciplinarity, one thematic or methodological research seminar, one transferable skill course and an international conference is compulsory for all doctoral candidates. HYMY Helsinki, GSGAS Leipzig, and DSPS Budapest predefine a certain number of ECTS for the taught part of the doctorate. The requirements at all eleven doctoral programmes of HYMY Helsinki are the same: 30 ECTS credits of research specific training and 10 ECTS credits of transferable skills training, freely configurable from the offered courses. In Leipzig and Budapest, the composition of the curriculum is specified.⁴⁴ In total, 24 ECTS credits of taught courses are required in Budapest and 60 ECTS credits in Leipzig. It is apparent that the amount of compulsory courses differs widely between the graduate schools. DSPS Budapest, EGSN Rotterdam, GSSR Warsaw, and HYMY Helsinki vary between 24 and 45 ECTS credits, and at GSGAS Leipzig the taught part accounts for 60 ECTS credits. GSGAS Leipzig offers its doctoral candidates a comprehensive curriculum and their performance in the taught part contributes to the final mark of the doctorate.

Having presented what kind of courses are offered and how compulsory they are, the impact of the taught programme on internationalization, interdisciplinarity, and intersectionality of graduate schools is next considered. English is the main instruction

⁴⁴ In Budapest, 14 ECTS are dedicated to the main track, composed of three core courses and one course on an advanced topic. Courses on methods and research design and a prospectus seminar workshop make up 6 ECTS; additionally 4 ECTS can be courses from different tracks or departments. In Leipzig, the doctoral candidates are required to complete four research seminars (16 ECTS in total), four doctoral colloquia and working groups (24 ECTS in total), two summer and two winter schools (8 ECTS in total), two key qualification courses (6 ECTS in total), and organize a workshop (6 ECTS).

language in the courses of almost all graduate schools.⁴⁵ The focus on a taught programme in English is an indication of the level of internationalization of the graduate schools. It not only attracts international candidates but also prepares doctoral candidates for an international work environment. In many graduate schools, international researchers are responsible for teaching courses and thereby contribute to an international learning atmosphere, as at ED SHS Paris-Saclay, where doctoral seminars or thematic schools with researchers and professors at the highest international level in their field of research are offered. In order to reinforce interdisciplinary approaches, EGSN Rotterdam and HGGN Heidelberg offer a course directly aimed at this topic. The course at EGSN Rotterdam, "The Dean's Masterclass", is more concerned with multidisciplinary approaches by looking at one topic from different disciplinary backgrounds. At HGGN Heidelberg, all new doctoral candidates are invited to participate in a seminar on interdisciplinarity. The thematic research seminars at GSGAS Leipzig are designed in an interdisciplinary way and often co-taught by lecturers from different disciplines. Furthermore, working groups, colloquia, and conferences are platforms for interdisciplinary exchange. Concerning intersectoral approaches, transferable skills courses particularly prepare doctoral candidates for careers inside and outside academia. Almost all graduate schools offer a range of courses or can resort to other units of the HEI.

5.4. Doctorate requirements

The degree of the doctorate is subject to different regulations relating to different stages of the doctorate. Starting with the first year of the doctorate, at CEU Budapest and KU Leuven the doctoral candidates have to pass an exam in order to proceed. The doctoral candidates at ED SHS Paris-Saclay are obligated to present their progress in a thesis committee meeting every year. The committee then decides on the admission to the next year of doctoral training.

The basis of the doctorate is independent and original research to achieve progress in the respective scientific field, which is presented in the thesis. The form of the thesis can differ from a monograph to a collection of published articles. In Paris, and Leipzig, the thesis must be in form of a monograph; in Warsaw a cumulative dissertation is demanded; whereas in Rotterdam, Heidelberg, Leuven, Loughborough, Helsinki, and Budapest both forms are possible. However, more interesting than the form of the dissertation is the language the doctoral candidates are required to use. Internationalization is reflected in the possibility to write the thesis in another language (in most cases English) than the national language. It

⁴⁵ ED SHS Paris-Saclay and HYMY Helsinki form an exception offering courses in French or Finnish respectively.

attracts international candidates that are not proficient in the national language. At EGSN Rotterdam, the language of the thesis is not stipulated, but if the candidates want to write in another language than Dutch, English, French, or German, the doctorate board needs to allow it. Similar regulations apply at KU Leuven – the doctoral committee decides the use of other languages than Dutch or English. In France, the language of the thesis should be French; exceptions must be justified and need to be clarified before beginning the doctorate. Legally, if the language is not French, a substantial summary of the thesis in French must be prepared. The language of doctoral theses at Loughborough U is English and most often English at GSSR Warsaw, although Polish and other languages are permitted. The graduate schools in Heidelberg and Leipzig state German and English as the most common languages; other languages are in principle possible. The main languages at HYMY Helsinki are Finnish, English, and Swedish. In accordance with doctoral programmes such as language studies, the thesis can be written in other languages. At CEU Budapest, the doctoral candidates have to write their thesis in English. Dissertations written in English enable the candidates to access international working opportunities within and outside academia. English is not only the lingua franca of science but also the language of business in international companies. At ED SHS Paris-Saclay, a slow change of the thesis language as well as the recognition of English is observable:

“The Thesis language shall be French, except where exceptions are substantiated (cotutella). The choice of the English language is supposed to be justified a priori by the needs of an international dissemination of the thesis.” (ED SHS Paris-Saclay)

The importance of English is also reflected in some other replies concerning the thesis language. At EGSN Rotterdam, the individual departments are the driving force; they increasingly promote the use of English. Heidelberg as well as Leuven and Warsaw report that English is almost more common than the national language. Moreover, as already mentioned, the doctoral candidates at CEU Budapest have to write their dissertation in English.

In line with the Salzburg principles, the duration of doctoral training should optimally be four years and full-time.⁴⁶ The introduction of doctoral programmes as an alternative to the individual doctorate is often related to the goal to reduce the duration. The duration of the doctorate in the participating institutions differs between three and eight years. In France and Poland, the duration of doctoral training is defined by national law. A full-time doctorate should not exceed three years in France, extension to maximum six years is possible for

⁴⁶ Koch Christensen, 2005. Bologna Seminar, p. 6.

half-time doctorate or international cotutelle arrangements. If the candidates do not finalize it in the given time, they drop out. In Poland, the national law sets the duration to four years, with a possible extension of two years.⁴⁷ After that time, candidates lose their status as students and the related benefits. Nevertheless, they can still finish their doctoral training, and at GSSR Warsaw, most candidates defend after five or six years. Between four and five years is the average duration of the doctorate at EGSN Rotterdam,⁴⁸ DSHSS Leuven (5.2 years) and GSGAS Leipzig (4.2 years). DC Loughborough (three years) and HGGS Heidelberg (three to four years) reported the shortest duration. At HYMY Helsinki, the average duration is between seven and eight years. This long duration is explained by the large number of part-time doctoral candidates at HYMY Helsinki.

The final exam or rather defence marks the last step of the doctorate. A public defence is an integral part of the final exam at all participating graduate schools. The usual practice of the final examination is described by DSPS Budapest:

“The Candidate receives the reports from the members of the Dissertation Committee in advance, and prepares a reply for the oral defense. At the oral defense, the Candidate summarizes the main points of the dissertation, and responds to the questions and comments by the members of the Dissertation Committee and the audience. After the debate, the Committee decides about the acceptance of the dissertation behind closed doors. The chair of the Committee announces the decision of the Committee.” (DSPS Budapest)

The regulations and compositions of the committee differ. In France and Poland, the doctoral defence follows national law, whereas at the other institutions faculty or university regulations provide guidelines. Of note is the composition of the committee at ED SHS Paris-Saclay, DC Loughborough, and CEU Budapest: at those graduate schools, at least one external examiner is a member of the committee. The regulations at ED SHS Paris-Saclay prescribe that the reviewers of the dissertation have to be external to U Paris-Saclay as well as comprise half of the examination panel. The oral defence at DC Loughborough is assessed by one internal and one external examiner. The committee at CEU Budapest consist of a minimum of three members, one of them external to the university. In order to strengthen the international aspect of the process of evaluating the doctorate, KU Leuven recommends involving at least one international examiner for the defence.

The doctoral degrees at none of the participating institutions are awarded by the graduate schools. The university is responsible for awarding the degrees at ED SHS Paris-Saclay, DC

⁴⁷ A reform of the higher education system in Poland scheduled for October 2018 abolishes the possibility of earning a doctoral degree through part-time study.

⁴⁸ Since there is no data for the graduate school available, they rely on a national average, which is a bit over five years.

Loughborough, and DSPS Budapest. At EGSB Rotterdam, HGSB Heidelberg, DSHSS Leuven, GSGAS Leipzig, and HYMY Helsinki, the faculties award the degree, and doctoral candidates of GSSR Warsaw receive their title from the Institute of Philosophy and Sociology of the Polish Academy of Sciences.

6. Academic staff

The support and collaboration of full professors are important for the success of graduate schools. In the following section, how the graduate schools motivate respective faculties to take part in their project is analysed. The internationality, interdisciplinary approaches, and intersectorality incentives of the staff to introduce and implement those concepts are considered.

6.1. Incentives for engagement

Faculty at graduate schools fulfils various functions. They are supervisors, academic leaders, board members, part of the management, and – especially in the thematic graduate schools – teaching staff. Professors at U Paris-Saclay are required to participate to ED SHS Paris-Saclay as it is part of their remit, the same applies to professors at the U Helsinki and CEU Budapest. Apart from the obligation to take part in those projects, extrinsic and intrinsic motivation factors ensure engagement of academic staff. While the reduction of teaching time for the participation in the graduate school is a common practice at HGGG Heidelberg, it is heavily contested at EGSH Rotterdam, though the graduate school actually pays staff additionally for teaching courses. In general, it would also be possible at GSGAS Leipzig, with the condition that the teaching at BA and MA levels is guaranteed (a condition that in fact makes it impossible for smaller disciplines to profit from any possible reduction). Payment for participation is another means for extrinsic motivation, but in some institutions it is not possible to remunerate staff members for any extra efforts they might make. This is the case at KU Leuven, for instance, although DSHSS Leuven can offer financial support for the organisation of extra doctoral training, including fees for teaching staff from other institutions:

“[...] our budget for occasional initiatives targeting young researchers (though limited) does succeed in supporting both senior and junior academic staff who design new training opportunities for PhD candidates.” (DSHSS Leuven)

Intrinsic motivation for participation is linked to the training of doctoral candidates. DC Loughborough identifies the motivation to support the candidates in their future careers. EGSH Rotterdam points out the inspiring working climate as well as motivated candidates and the interdisciplinary setting. GSGAS Leipzig adds the motivational factor of working with international doctoral candidates. Beside the work with doctoral candidates, the increased prestige can be an intrinsic motivation, as added by GSSR Warsaw. Junior professors are motivated by similar incentives as full professors. Junior academic staff at HYMY Helsinki and CEU Budapest are fully integrated in the graduate schools. In addition to the incentives above, junior professors are motivated to advance their careers. The engagement in a

graduate school gives them experience in the academic field and research, which improves their curriculum vitae and strengthens career options.

6.2. Triple-I incentives

Asking for incentives of the academic staff to integrate and strengthen Triple-I (interdisciplinary, internationalization, intersectorality) activities within graduate schools, HGGG Heidelberg came up with an apt quotation:

“For me, the incentives mentioned in all three queries are more or less the same: The problems we need to tackle today are often so complex and multidimensional that we need a multiperspectival approach to solve them. This implies that we use perspectives from different scientific disciplines, regardless of national boundaries. It implies that we implement cooperation of different societal sectors, e.g. scientific institutions and sectors that are dominated by practical applications and practical experience. Thus, the main incentive is gain of knowledge (‘Erkenntnisgewinn’) in complex matters. Yet, political, institutional or systemic incentives are still behind.” (HGGG Heidelberg)

In other words, the incentive to intensify Triple-I in doctoral training is to achieve excellent and comprehensive research results. According interdisciplinary training, the board of EUR Rotterdam funds a “Research Excellence Initiative” that encourages joint projects across disciplines. DSHSS Leuven motivates interdisciplinary and international initiatives with financial stimuli. On the university level, there are as well initiatives to promote interdisciplinary research. At CEU Budapest, the Intellectual Themes Initiative (ITI)⁴⁹ offers support for interdisciplinary projects. Within the initiative, university-wide seminars, co-taught courses, interdisciplinary research, and outreach activities are funded.

In order to advance internationalization, the graduate schools, or the HEI’s they belong to, set up different forms of financial support. EUR Rotterdam provides seed money for international projects, and KU Leuven funds international activities within the doctoral school. GSSR Warsaw is able to provide considerable funding because its international orientation is ranked rather high according to a governmental evaluation, which results in a large amount of state support. Rather intrinsic incentives named are the motivation to learn new approaches from other cultures, develop professional networks, cross-cultural research, access to high-quality doctoral candidates, and academic merits.

Making intersectorality more attractive seems not to be very elaborated at the participating graduate schools. EGSHE Rotterdam reports on an official collaboration policy between EUR Rotterdam and the city of Rotterdam through knowledge labs:

⁴⁹ For more details, visit <https://www.ceu.edu/iti> (accessed on 12.07.2018).

“The aim of this is to improve the accessibility of scientific knowledge for implementing policy, by means of lectures, master classes or fact sheets. Another goal of these labs is the initiation of new projects and research.” (EGSH Rotterdam)

At KU Leuven, a call for interdisciplinary and intersectoral research projects led to some successful applications from doctoral candidates of DSHSS Leuven. Additionally, the extension of the professional network and attraction of excellent doctoral candidates because of existing cooperation with companies or other non-academic organizations could motivate academic staff to improve intersectoral work.

It is significant to note that most of Triple-I incentives emerge at the university level and are not directly related to doctoral training and graduate schools. The incentive for academic staff to promote and support internationalization, interdisciplinary activities, and intersectorality is that it appeals to first-rate international doctoral candidates working on original research topics and therefore develops the research profile of the faculty. Incomplete answers – especially on intersectorality – seem to indicate a need for innovative ideas to motivate academic staff and the management of graduate schools to promote this topic.

7. Concluding remarks

The aim of this report was to provide an inventory of what the graduate schools participating in the Graduate SPIRIT consortium have to offer with respect to organization, doctoral candidates, curriculum, and academic staff. The data for the inventory stemmed from website analysis of the graduate schools homepages, a survey answered by representatives of the graduate schools, expert interviews, discussion rounds, and document analysis of supervision agreements and course programmes.

One of the first result was that the academic setting of graduate schools varied from school to school. Nevertheless, a pattern was observable and the graduate schools could be categorized into two groups: 1) graduate schools accountable for more than 500 doctoral candidates function as an umbrella organization for several doctoral programmes, research schools, faculties, or research groups; 2) graduate schools with fewer than 100 doctoral candidates and not including several subunits.⁵⁰ Further analysis of other aspects support the categorization. As outlined in section 4.2, the umbrella organization are normally not involved in the recruitment, application, and selection process, except in regard to advertising the programmes or the application process. In contrast, the thematic schools are in charge of recruitment, application, and selection. Another distinguishing criterion between the two types is the design of the curriculum.⁵¹ Whereas the course programmes of the umbrella organizations are limited to transferable skills, the group of thematic graduate schools offer research-specific courses to the doctoral candidates.

Nevertheless, in several aspects, the distinction is not applicable and there are even issues in which they resemble each other. The graduate schools play an important role during the doctorate and take over a lot of work from the faculties and the supervisors. They are responsible for the taught programme of the doctoral training, offer counselling on topics like funding or career planning, support international mobility, and act as contacts for further concerns of the doctoral candidates. A common challenge for all graduate schools is financing the work of the school and the doctoral candidates. In contrast to the (more or less) steady funding of the first and second cycle of studies at European universities, the doctorate remains an additional task and the transformations that happened or have been initiated over the past decades have not yet led to a substantial reorganization of university budgets. A consequence of a rather dissatisfying situation is a wide range of

⁵⁰ See chapter 2.3 *Academic setting*.

⁵¹ See chapter 5.3. *Curriculum*.

experimentation across the landscape of European HEIs, which is also reflected in this report.

Regarding internationalization, interdisciplinary, and intersectorality, the graduate schools advance and pursue internationalization most, ranging from a large share of international candidates, international networks, international advertising and recruitment strategies, and the opportunity for joint degrees and support of the international mobility of the doctoral candidates. Furthermore, the use of English is common in almost all graduate schools, starting with the website language, to the language of the taught programme, to the possibility to write the thesis in English. Regarding interdisciplinary approaches, there are observable variations between the graduate schools. The graduate schools in Leipzig and Heidelberg both follow an interdisciplinary structure. Within the graduate schools of Rotterdam and Helsinki, interdisciplinary doctoral programmes are included. DSHSS Leuven offers means to support interdisciplinary activities of the doctoral candidates. Furthermore, having supervisors from different disciplinary backgrounds are common in some of the graduate schools. Despite career advice, workshops on career planning, and transferable skills courses, it seems that intersectorality is a relative new challenge for the examined graduate schools. Accordingly, the first efforts are being undertaken to face this challenge in innovative ways, for example by expanding contacts with the non-academic sector of the labour market and collaboration with actors outside academia. Effects on the curriculum, the choice of topics, and the ways supervision will develop are to be expected.

Bibliography

Andres, Lesley, Bengtsen, Søren, del Pilar Gallego Castaño, Liliana, Crossouard, Barbara, Keefer, Jeffrey M., and Kirsi Pyhältö. 2015. Drivers and Interpretations of Doctoral Education Today: National Comparisons. *Frontline Learning Research* 3: 5–22.

Baschung, Lukas. 2016. Identifying, Characterising and Assessing New Practices in Doctoral Education. *European Journal of Education* 51: 522–534.

Booth, Alison L., and Stephen E. Satchell. 1995. The Hazards of Doing a PhD: An Analysis of Completion and Withdrawal Rates of British PhD Students in the 1980s. *Journal of the Royal Statistical Society* 158: 297–318.

Byrne, Joanne, Jørgensen, Thomas, and Tia Loukkola. 2013. *Quality assurance in doctoral education. Results of the ARDE project*. Brussels: European University Association.

Council of the European Union. 2012. Conclusions on 'A reinforced European research area partnership for excellence and growth'.

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/134168.pdf (accessed on 25 May 2018).

Denzin, Norman K. 1970. *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: Aldine.

European Commission. 2011. Seven Principles for Innovative Doctoral Training. http://www.oulu.fi/sites/default/files/content/Seven_Principles_for_Innovative_Doctoral_Training.pdf (accessed on 24 May 2018).

European University Association. 2016. *Doctoral Education – Taking Salzburg Forward. Implementation and New Challenges*. Brussels: European University Association.

European University Association - Council for Doctoral Education (EUA-CDE). 2018. *Doctoral Education: Why it matters for Europe*. Geneva: EUA-CDE.

Groenvynck, Hans, Karen Vandevælde, and Ronan van Rossem. 2013. The PhD track. Who succeeds, who drops out? *Research Evaluation* 22: 199–209.

van der Haert, Margaux, Elena Arias Ortiz, Philippe Emplit, Véronique Halloin, and Catherine Dehon. 2014. Are dropout and degree completion in doctoral study significantly dependent on type of financial support and field of research? *Studies in Higher Education* 39: 1885–1909.

- Kehm, Barbara. 2006. Doctoral education in Europa and North America: a comparative analysis. In *The Formative Years of Scholars*, ed. Ulrich Teichler, 67–78. London: Portland Press.
- Kehm, Barbara M. 2007. Quo Vadis Doctoral Education? New European Approaches in the Context of Global Changes. *European Journal of Education* 42: 307–319.
- Koch Christensen, Kirsti. 2005. Bologna Seminar. Doctoral Programmes for the European Knowledge Society. Salzburg, 3-5 February 2005. General Rapporteurs Report. http://www.eua.be/eua/jsp/en/upload/Salzburg_Report_final.1129817011146.pdf (accessed on 24 May 2018).
- Korff, Svea and Navina Roman (eds.). 2013. *Promovieren nach Plan? Chancengleichheit in der strukturierten Promotionsförderung*. Wiesbaden: Springer VS.
- Middell, Matthias. 2016. Doktorandenqualifizierung an der Universität Leipzig. Das Beispiel der Graduate School Global and Area Studies. In *International Lectures. 22 Beiträge zur Internationalisierung der Hochschulen*, ed. Stefan Zotti, 110–115. Innsbruck: Studienverlag.
- Ministerial Conference Bologna. 1999. The Bologna Declaration of 19 June 1999. Joint declaration of the European Ministers of Education. http://media.ehea.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf (accessed on 25 May 2018).
- Nerad, Maresi and Mimi Heggelund (eds.). 2008. *Toward a Global PhD? Forces and Forms in Doctoral Education Worldwide*. Seattle: Center for Innovation and Research in Graduate Education University of Washington.
- Pasternack, Peer. 2014. *Qualitätsstandards für Hochschulreformen. Eine Auswertung der deutschen Hochschulreformqualitäten in den letzten zwei Jahrzehnten*. Bielefeld: UniversitätsVerlagWebler.
- Sabic, Norbert. 2014. Comparative Analysis of Doctoral Education in Europe. *Annals of the University of Bucharest* 16: 129–147.
- Zinner, Lucas. 2016. *Professionals in doctoral education. A handbook*. Vienna: University of Vienna.
- van Zoonen, Lisbet. 2017. Challenges and Opportunities for European Graduate Schools in Social Sciences and Humanities. *Journal of the European Higher Education Area* 2017.

Züll, Cornelia and Natalja Menold. 2014. Offene Fragen. In *Handbuch Methoden der empirischen Sozialforschung*, eds.: Nina Baur and Jörg Blasius, 713–719. Wiesbaden: Springer VS.