

International cooperation in doctoral education- A guide

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1. Introduction

Internationalization of higher education (IoHE) is not a new concept though is still evolving into a new understanding and broad range of approaches (EU IP/B/CULT/IC 2014-002, 2015; de Witt et al., 2015). Beyond the traditional models presented over the last 30 years through mobility programmes for research and education such as the ERASMUS programme and Marie Curie Fellowships, current trend pursues the establishment of international strategic partnerships strengthening cooperation and networking between organisations as well as the improvement of HE teaching and learning quality and graduate employability.

Emerging areas of focus are internationalisation of the curriculum, transnational education (TNE) (ACA, 2008) and digital learning as well as building educational partnerships for joint programmes and double/joint degrees. For instance, TNE activities have become strategic pillars for European HE institutions (HEIs) aspiring to global significance. Indeed, developing cooperative academic curricula and programmes brings a plurality of identities, cultures, languages and experiences that can enrich and enhance learning, teaching and research. Thus, responsibility for IoHE is shared among not only HEIs but also international/national/regional authorities, industry and funding bodies.

In fact, there is an increasing emphasis in many HEIs on incorporating the following activities into their agendas¹:

- Quality enhancement of teaching and learning puts pressure on educators at all levels for promoting professional development and continuously improving professional practice (Colucci et al., 2014; Slavin, 2002). Staff with international experience can bring added value by designing, exploring and developing materials and processes to meet their own situated curriculum.
- Mobility and training programmes have been fundamental for offering international educational experiences for students and staff; experiences that develop in the student problem-solving and decision-making skills, personal confidence and professional responsibility, apart from being exposed to another language and different culture. Developing an appropriate, stimulating environment embracing international researchers' and educators' needs (Altbach & Knight, 2007) is still pending task at many HEIs across

¹ EC Renewed agenda for higher education (2017)





Europe, which is critical for encouraging inbound students and leveraging international visibility.

- Student pressure on universities to help them get good jobs is not new, but it is becoming a greater priority of governments as well. **Transnational academic programmes** (Adam, 2001) are generally meeting the skill gaps of countries that engage in collaboration with foreign universities and are helping to broaden the range and quality of courses for students. There are, however, a number of challenges when collaborating such that and these are often related to differing cultural expectations, inequalities in power relations and the need to ensure quality standards across partner institutions.
- **Joint programmes** have been more or less on the agenda of most European universities since the Bologna process started in 1999, which refers directly to joint degrees since 2001:

"In order to further strengthen the important European dimensions of higher education and graduate employability Ministers called upon the higher education sector to increase the development of modules, courses and curricula at all levels with "European" content, orientation or organisation. This concerns particularly modules, courses and degree curricula offered in partnership by institutions from different countries and leading to a recognized joint degree." (Communiqué of the meeting of European Ministers in charge of Higher Education in Prague on 19 May 2001).

- Increased competitiveness and the opportunity to **implement new technologies** are also found within the objectives of transnational education. Some programmes primary depend on distance-shrinking technologies² such regular videoconference meetings and workshops to enable team members to build relationships and together improve aspects of the teaching and learning in their subject.
- International research collaboration has been increasingly pursued to enhance the quality, prestige and impact of research and researchers, mostly with the aim of increasing institutional visibility. It is occurring more naturally as a result of encounters in international workshops, conferences and symposia. Influential in facilitating collaboration are the cultural affinity

² EC Digital education action plan (2018)





of researchers, the existence of resources directed towards cooperative study and comparable levels of academic excellence and technological development, that all contribute to high-level joint research (Chan et al., 2006). High-quality research partnerships may be enabled by international agreement, but they are implemented via the willing and mutually beneficial agreement of principal investigators and their research groups. Well-structured and flexible funding mechanisms are required to support collaboration, and can influence strategic decision making.

In this paper, we position the European PhD Hub project as an excellent facilitator of the development of Joint PhD degree programmes among the project partners (and other future members of the EU PhD Hub Platform). The European PhD Hub addresses the challenges that both universities and companies are facing when looking at the need for constantly innovating in fast-changing and globalised markets. The main purpose of the project is therefore to make the knowledge triangle Education-Research-Innovation work and guarantee that research outcomes obtained by PhD students have, on one hand, a real impact in broader socio-economic environments and, on the other hand, real applications within the business/industry clusters.

The European PhD Hub will create a quality framework for University-business cooperation in the field of doctoral studies by creating guidelines, which will set the basis for such cooperation (solving legal issues, explaining good practices and cooperation models). With the implementation of local PhD hub strategies, the university-business cooperation will enable to build joint research projects creating synergies at the level of funding and already providing perspectives for real application of the research results. Together with the implementation of the international cooperation guide for PhD studies and the implementation of the cloud-based online network connecting the local hubs, the universities and companies will be able to cooperate at European level and therefore increase the critical mass of partners and subsequently allow the partners to find the best matching research partners, which are not necessarily available at local scale.

2. Related work

There is a series of guidelines, checklist and methods proposed so far to assist HEI partnerships in the internationalisation of their studies. In the case of joint



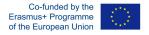


doctorates, the JOIMAN report³, the EMQA Handbook of Excellence⁴ – Doctoral Programmes and the JOI.CON project⁵, to name a few, set a clear organisational and managerial structure and partner responsibilities for the success of the collaborative programme. Networks online are building what is know as Open Science in Doctoral Education such as the European University Association and its Council for Doctoral Education (EUA-CDE) that brings together a large community of academic leaders and professionals (with 244 members from 35 countries) working on doctoral education and research training in Europe.

Strategies and approaches to the internationalisation of doctoral studies are diverse, but in all cases there should be institutional engagement in international activities (as institutions) in order to give doctoral candidates the full benefits of international experiences. Such activities could take the form of institutionalised collaborations with chosen partner institutions such as the aforementioned TNE programmes, joint programmes, or participation in university networks.

In the case of joint programmes, the internationalisation of doctoral programmes presents differences with the development of joint bachelor and/or master programmes. These main differences lie in the often more unstructured format of the doctorate, the complex nature of research, development and supervision. A Joint PhD is a single PhD degree jointly awarded by two HEIs. It is not two PhD degrees. Joint-PhDs are much more than a period of research abroad which could be achieved simply as a visiting PhD student in a host institution. They provide an integrated educational experience, which, at the outset, assumes the need for the doctorate student to be supervised by two experts and to have access to two research environments for the benefit of the research. The joint degree can be documented through a joint diploma from the institutions or through a diploma from each of the institutions.

As depicted in Figure 1, motivation for two HEIs building such a cooperative academic partnership is varied and could base on:



³ The Joiman project, financed by the European Commission in the period 2008-2010, under the the framework of LLP/Erasmus/structural network, investigated obstacles and challenges usually faced by coordinators of Joint Programmes on Master and Doctoral level (https://www.joiman.eu/).

⁴ Erasmus Mundus Quality Assessment 2012 Handbook of Excellence – Doctoral Programmes (http://emqa.eu/Downloads/Handbook%20of%20Excellence%202012%20-%20Doctoral%20-%20F inal.pdf)

⁵ JOI.CON: Joint Programme Management – Conferences and Training was selected by the European Commission as an ERASMUS Accompanying Measure in 2011. https://www.joiman.eu/ProjectPresentation/2012-03-07%20JOI.CON%20leaflet%20final.pdf



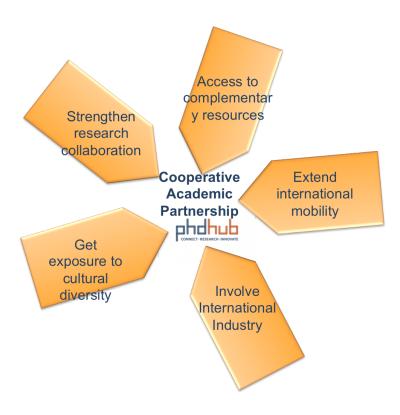


Figure 1 Motivation for building cooperative academic programmes and/or transnational education.

- 1. Strengthening research collaboration, for example, when a predefined project happened to be done jointly at two HEIs; research network is therefore strengthened too.
- 2. Getting access to complementary facilities and resources; for instance, when a pre-established cooperative programme exists, it is common to invite outstanding doctoral students to apply to undertake PhD study at the HEI in collaboration with another international HEI.
- 3. Extending international mobility programme that will help develop doctoral research capacity.
- 4. Getting certain industrial/public sector involvement from two countries so gaining international expertise.
- 5. Gaining exposure to two cultural approaches to research and then exchanging and learning good practices.

The doctorate student will acquire most relevant research and transferable skills, such as negotiation and adaptability as well as better networking opportunities for





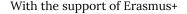
future job prospects. Indeed, joint PhD programmes give students greater access to resources, professors and opportunities than they would have in a single programme. Doctorate students can take advantage of each Faculty/School's strengths to jumpstart their careers.

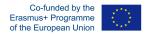
Moreover, the European PhD Hub leverages the involvement of businesses in research and innovation. This bond between industrial production and academic research is mutually beneficial for both sides. The best joint degree programmes take advantage of the businesses and corporations in their own backyard to create consulting projects, case competitions, client fellowships and management simulations (Beckman et al., 1997). Note that the traditional approach to get industry involved in academic PhD programme is commonly by means of industrial PhD fellowships. These fellowships are offered through joint collaboration between a private enterprise and a university (Etzkowitz, 2003; Fujisue, 1998). The PhD programme will be conducted as a research project and the PhD student is to facilitate joint collaboration between the university and the private enterprise. This approach gives companies the opportunity to enhance their research expertise without having to participate in a more comprehensive project.

This relationship is achieved within the European PhD Hub at international level, where the student can benefit from the local industry of the two HEIs signing a Joint/Double PhD agreement.

Furthermore, the European PhD Hub shares the objectives provided by other doctoral research networks such as the EUA-CDE⁶ and the International Doctoral Education Research Network (IDERN)⁷. With the aim at generating a collaborative international research agenda for doctoral education, these networks seek to connect researchers from different national settings, as well as different disciplines and research perspectives as to share knowledge and perspectives in a trans-national online forum and to work towards future research collaboration. A central element of this agenda is to generate dialogue on knowledge creation and doctoral pedagogy and to influence the shaping of future doctoral education policy and practice around the world.

⁷ The International Doctoral Education Research Network (IDERN) is a network of scholars and practitioners actively engaged in researching doctoral education. http://idern-test.mcgill.ca





⁶ The European voice for doctoral education, bringing together a community of academic leaders and professionals. https://www.eua-cde.org



3. Issues for the Internationalization of HEIs

As in Task 2.3, we have surveyed (refer to <u>Appendix B</u> for details on responses) the PhD Hub university partners on the aspects that need to be taken into account when developing and managing joint doctoral programmes. The European PhD Hub platform could be of much help to this regard.

We have therefore analysed the particularities of the four HEIs partners and identified four building blocks leading to an implementation method of a joint doctoral degrees. Figure 2 depicts these building blocks for the internationalisation of doctorate degrees through the European PhD Hub, which are as follows.

3.1. National and University regulations in doctoral studies

Universities which collaborate abroad are increasingly taking account of legal issues when collaborating. The suggestions to carry out research on a collaborative partner and to document the terms of a relationship are common sense ones; but more has to be set-up when entailing international legal issues.

The legal framework that regulates HEIs (PhD Studies) in each country and their relationship with the local/national Industry may be distinct. The convergence of these national frameworks as well as universities' internal rules of procedure is essential for the cohesive operability and the international functionality of the PhD Hub.

Hence, point number one of the method is on getting to know the HE partners and their national regulations well, before starting to develop the joint doctoral programme. Also, it must be ensured that the partner institutions are accredited institutions within their national systems.





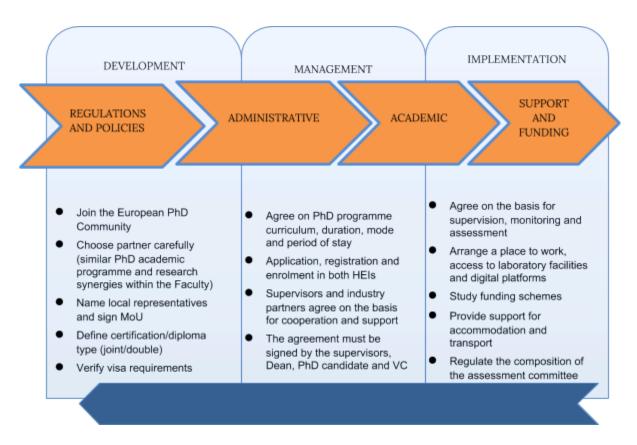


Figure 2 Summary of stages and steps to develop a Joint PhD Degree Programme through The European PhD Hub

Listed below are some of the types of international agreements which relate to inter-institutional collaborative academic programmes and/or students who may be registered to a programme with an inter-institutional collaborative aspect.

Agreement Type	About
Letter of Intent (LoI)	The signing of an LoI indicates intent of signing institutions to investigate future areas for collaboration and often precede the signing of an MoU.
Memorandum of Understanding (MoU)	A bilateral or multilateral agreement between two or more parties which expresses a convergence of will between the parties, indicating an intended common line of action, rather than a legal commitment (and lacks the binding power of a legal contract). This agreement provides a framework for future co-operation.

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Memorandum of Agreement (MoA)	A bilateral or multilateral agreement between two or more parties which articulates plans and associated arrangements to work together co-operatively on particular projects, programmes or in pursuit of other agreed aims and objectives. The MoA is considered to be a binding legal contract.
Agreement for Bilateral Exchange	An arrangement that facilitates the reciprocal exchange of staff and/or students between HE institutions, where students are admitted to, and graduate from, a "home" institution, but spend time at one or more "host" institution(s). Includes ERASMUS exchanges. These arrangements are subject to a formal agreement between the relevant parties. One award provided by the "home" institution.
Research Studentship Agreement	Where another organisation is fully or part-sponsoring a studentship at the University, the funding relationship should agree on (among others): Who the contract is with; What the programme of work and timetable is; How the work and relationship will be managed and disputes resolved; What the outputs are expected to be; Who owns the outputs and how may they be used; What resources and consumables are required; Publication rights; Rights to conduct further research & teaching; Involvement of any non-university resources or people; Payment terms. In the case of PhD studentship, there are certain additional issues which we have to account for to protect the best interests of the student, i.e., ensuring the strength of the academic supervision relationship, allowing for submission of a thesis in any circumstances and ensuring the student retains copyright in their submitted thesis. Additionally it has to be ensured that if the student is to spend time at the Sponsor's premises that there are sufficient resources made available and that an appropriate level of supervision is maintained.
Collaborative Programme Agreements (International)	A formal and legally binding agreement governing inter alia, inter-institutional partnership(s) and the operation of a programme(s), where two or more higher education providers (which may include an awarding body) are involved, by formal agreement, in the provision of a programme of higher education and/or training.
Joint/Dual Degree Programme	The process by which two or more awarding institutions collectively contribute to a programme leading to two separate awards in instances where there are legal barriers for a partner institution to be able to fully participate in a joint award. These arrangements are subject to a formal agreement between the relevant parties. More than one award provided by more than one institution where there are legal barriers to the provision of a joint award. Dual or Joint degree programs allow students of universities' partnership to earn two degrees simultaneously or earn one degree from both universities.
Co-Tutelle, or Inter-Institutional Co-Supervisory Arrangement	An Inter-Institutional Co-Supervisory Agreement is a joint supervisory arrangement normally established between two HEIs. These agreements are developed by the collaborating universities with an individual Agreement drawn up on behalf of each student. Students pursue their doctoral studies at two universities under two different supervisors. A student is awarded a degree from both Universities (a dual degree or double degree).





A jointly-awarded PhD (only one qualification is awarded jointly by the cooperating institutions) is sometimes not possible due to for instance the particular HEI's regulations and/or country's legislation. When it is the case, HEIs offer double degrees instead. A double degree programme awards two individual qualifications at equivalent levels upon completion of the collaborative programme requirements established by the two partner institutions. Similarly, a multiple degree programme is essentially the same as a double degree program, except for the number of qualifications offered.

The legality and recognition of the qualifications awarded by a double/multiple degree programme are more straightforward than for joint degrees. It is assumed that each partner institution is officially registered or licensed in its respective country. Thus, awards offered by the enrolling institution in a collaborative program should be recognized in that country, while the other or double awards would be treated like any other foreign credential.

It is being considered within the online platform blueprints the inclusion of the legislative context by country partner as well as the templates and/or resources for mobility of participants.

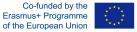
Within this project consortium:

- Joint/Dual PhD Degree programmes based on the co-tutelle agreement (see field specification in Section 4.3 and <u>Appendix A</u>) between the two HEIs are possible amongst The European PhD Hub's university partners.
- Visa procedures⁸ for doctorate students and staff members involved in the Joint PhD programme from outside the European Economic Area (EEA) and Switzerland applicants will make explicit on the Joint PhD Agreement.

Legal obstacles for international doctoral education should be minimised or removed, for example restrictive immigration policies, cumbersome visa procedures, recognition of foreign degrees and programme accreditation.

Regulation (EC) No 810/2009 of the European Parliament and of the Council of 13 July 2009 establishing a Community Code on Visas (Visa Code) https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009R0810







3.2. Institutional and organizational issues

During the development stage of the method as in Figure 2, the two HEIs should name local representatives to the consortium as to agree on the following:

- The partner institutions should sign a MoU⁹, which affirms the partners' intention to develop a joint degree.
- The faculty, department and consortium should clarify the financial and administrative consequences. The cost estimate should include both development and operating costs. What incomes and outcomes one can expect, and how these should be divided, must be discussed.
- The enrolment endows the Joint PhD student with membership of the HEI partner, entitling to use the resources necessary to conduct the research and to exercise full rights as a doctoral student. The joint student has to enrol at both partners.
- If the partner institutions wish to charge tuition fees, one should discuss whether all students should pay the same amount or whether to differentiate between European and non-European students. Normally, the student will **pay tuition at only one HEI**, which is designated as the "Lead" university. Mandatory student fees will normally be paid at whichever institution the student is in residence in for a given academic term.
- Duration of studies (e.g., 3 years full-time), mode of study and permanency criteria (with extenuating circumstances procedure) should be agreed. Administrative calendar for application and enrolment have to be confirmed. The period of study at each HEI partner must be specified.
- A Joint PhD student's **application** must meet the documentation requirements of both HEIs.

1	 National ID or Passport Curriculum vitae.
	3. Degree certificate or certificates required for
	access.

⁹ MoUs will vary depending on the nature of the partnership. It should state clear details of the parties signing, the scope of the collaboration, duration and evaluation, compliance with law, IP rights and confidentiality issues, funding and materials, as well as any definition and term among others.





- 4. Transcript of marks awarded during degree
- 5. Letter of motivation
- 6. Oral presentation
- 7. Experience in teaching
- 8. Extra experience in industry
- Ownership and commercialization of the results is a major issue as it entails the risk that each part uses the research results for its own purpose. Intellectual property (IP) is normally vested in the student. Any variation must be codified in a written agreement.
- The Joint PhD programme can include statements of the cooperation with business partners. Industrial co-supervision of PhD students is an indicator for competitiveness on the market for education services, trainings and research bringing in use cases of impact, lab facilities, and sometime scholarships. Co-supervision responsibilities and IP issues have to be clarified on the agreement.

3.3. Systemic and structural issues

The academic & research programme of a student enrolled in a Joint PhD should be based on on-going or developing research collaboration between research groups in the two participating HEIs and may also reflect an active collaboration between two HEIs that are part of a network.

A research topic along with the main aim and objectives planned in the PhD proposal are to be set on the Joint agreement as well as supervisory team composition. Description of the rationale is desirable. Also, working on a thorough employability strategy for candidates, this project assists in the identification of potential industrial partnerships. Industry collaboration in Joint PhD Programmes adds an important component of innovation and entrepreneurship as well as guarantees of research use cases of impact in society. Industry partners' involvement has to be regulated on the agreement. Please refer to the *deliverable* R2.3. *university-business cooperation guide for doctoral studies* (including industrial PhD supervisor) for details on the recommendations proposed to deal with the external expert involvement.





Important questions should be agreed during the management phase of the proposed method (Figure 2):

- Registration is the process by which the HEI formally approves the research project and supervisory arrangements for each research student. Partners should agree on: A full-time student is expected to reach the standard for PhD within three years of registration, with a maximum of four years permitted. A part-time student is expected to reach the standard for PhD within four years of registration, with a maximum of seven years permitted.
- Collaborative academic programme along with the supervision, monitoring and assessment procedures have to be agreed.

1-4	In managed design of the first years of a Dh D and design
1st year Training	In general, during the first year of a PhD academic programme it is required the attendance and successful completion of taught courses and/or transferable-skills training and specific training activities. Number of credits, curriculum and assessment options for this training should be discussed/agreed. If the partner HEIs require a specific content/material to be completed by the student on site that should be stated as
	well.
Supervision	Students are expected to meet regularly with their
and	supervisory team and the faculty will maintain local
monitoring	records of these meetings. In addition, some HEIs
	undertake internal formal review of the research student
	progress every six/twelve months. Joint PhD agreement
	should set guidelines for this.
	The agreement will also cover the responsibilities of the
7 1 . 1 1	supervisors from both partners.
Industrial	Support for the industrial partners should be clarified;
co-supervisi	e.g., provision of the specialist expertise on a regular
on	basis, access to relevant resources/technology, provision
	of advice at all stages of the research, progress
A = = = = = = = = = = = = = = = = = = =	monitoring and/or direction of studies.
Assessment	The dissertation must have the logo of both institutions,
	and the cooperation agreement must be specified.
	Manuscript submission procedures and requirement shall
	be specified on the Agreement e.g., if it has to be
	containing an abstract in the local language).





Viva/Defence regulations and examination process and arrangements as well as possible outcomes should be agreed. The agreement must regulate the composition of the assessment committee.

- Clear statement of the responsibilities of doctorate student for attendance, absence, suspension, extension and withdrawal as well as for teaching is required.
- The doctorate student will be admitted as a student at both HEIs, and will be entitled to use the services and structures of each. The European PhD Hub platform offers a sustainable doctoral support system that entails the mobility of doctorate students and academics, the updated subjects' content and the access to knowledge from the industry.
- The doctorate student must have a period of stay at both institutions. The agreement should specify when to stay at each institution. Similarly, staff mobility is expected and should be set on the agreement as well.
- The candidate shall receive a sole diploma with the two HEI's logos in the case of joint PhD programme and a diploma from each institution when a double degree is awarded.

3.4. Funding and financial support

During the implementation stage, financial support¹⁰ for the doctorate student is to be worked out between the co-supervisors at the two HEIs and reflected in the Joint PhD Agreement. Both HEIs should provide the student with support for attending conferences or doing fieldwork.

Fee-waivers and bursaries request procedures should be specified as well as accommodation support if possible. Similarly, industry support and/or sponsorship should be defined on the agreement if possible.



¹⁰ Platforms such as EURAXESS help researchers find a wealth of constantly updated information on job vacancies, funding opportunities and fellowships throughout Europe. Posting their CV will allow recruiters to find them.



4. Dynamic Method For The International Cooperation In Doctoral Studies

Upon the analysis of the diverse factors affecting the development of international collaboration at PhD level between this project's HE partners, we propose a method for embracing internationalisation into their PhD programmes and building joint PhD degrees through the assistance of the European PhD Hub platform. More specifically, the proposed method can be used for the establishment of the following:

- Joint awards (a programme of study which leads to a qualification PhD or EngD which is jointly awarded by two HEIs with degree awarding powers).
- Collaborative award (a programme of study leading to an award by a HEI which is either wholly or partially collaboratively designed, delivered and/or assessed by the HEI and other partner(s) with or without degree awarding powers).

Under collaborative provision arrangements, the programme is normally quality assured by both (or all) institutions/organisations according to bespoke arrangements set up in the governing Memorandum of Agreement/Terms of Reference signed by both (or all) collaborating institutions.

4.1. PhD Degrees with European/International Distinction

The European PhD Hub platform serves as catapult for finding international connection either in the international industry community and/or within the HEIs proving expertise in the PhD topic. This international connection will facilitate the traditional way of internationalisation of PhD degrees in Europe, which is degree awarded with 'International Distinction.' Requirements for the inclusion of the distinction of international doctor in the Doctoral degree certificate are commonly:

- The doctorate student must have studied or conducted research for at least three-six months at a HEI or research centre in a different country.
- This period and the activities must have been agreed with the thesis supervisor and authorised by the academic committee of the doctoral programme, and are to be included in the doctoral student's activities document.
- PhD thesis document is generally written in English.





- At least two international expert doctors must have written a report on the thesis.
- At least one of the Viva examiners must be an expert doctor affiliated to an international HEI or research centre. This expert must not have been involved in the student's study visit.

The 'International Distinction' designation is annotated on both the student's diploma and official transcript.

4.2. Adding Industry into the loop

Traditionally, industry has been involved in academic research through the so-called Industrial PhD or Industry-partnered PhD programmes (sometimes doctorate in engineering -- EngD). Basically, an Industrial Research Programme is an industrially focused research project which is conducted jointly by a private sector company, a PhD student and an university. The PhD student is employed by the company and at the same time enrolled at the university. Moreover, the student should divide her/his time between the two parties and between the project and the education.

In general, the company must:

- Be part of the private sector and have a division geographically located where the student is to be employed.
- Be able to provide facilities and financial support for the project for the entire project duration.
- Be financially independent from the university.
- Assign a company co-supervisor or supporting mentor to the project/student. The company co-supervisor must:
 - Have an education (depends on the Programme Regulations it might be required PhD level) and/or considerable experience in the subject and business sector.
 - Be the formal company representative and works together with the PhD student and the university supervisor on carrying out both the project and education.

Similarly, the university must assign a Director of Studies and/or supervisor who is responsible of the academic supervision of the candidate, and also must:

• Be an acknowledge researcher within the project field.





• Have experience with an positive results as PhD supervisor.

Chapter 12 in Report 2.3 University-Business Cooperation Guide proposes a series of solutions, methods and models to enhance and improve University and Industry partnership towards successful PhD programmes. These new models of establishing cooperation will definitely assist in the development of international research and educational partnerships.

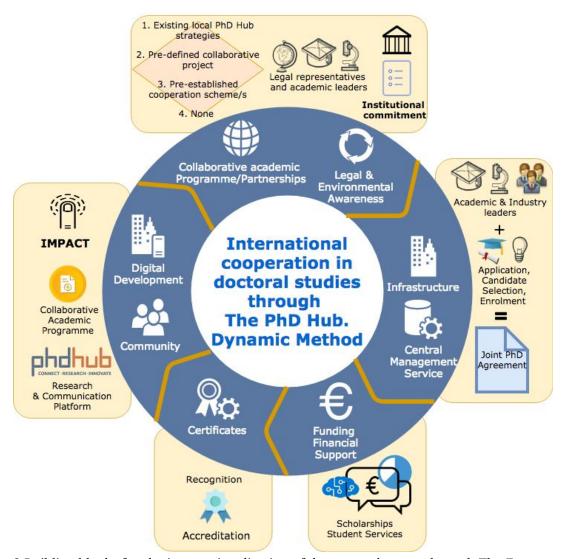


Figure 3 Building blocks for the internationalisation of doctorate degrees through The European PhD Hub

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4.3. Guidelines in Summary

Figure 3 presents the dynamic method for establishing international cooperation in doctoral studies through the European PhD Hub.

In a development stage, before a collaborative programme can be commenced, legal representatives and academic leaders from both HEIs must agree and obtain at least the strategic approval for the Partnership (if it is new, or inherited from pre-established collaboration), the Programme and Award approval by the Postgraduate Research Quality Committee (or similar committee at both HEIs) and sign the MoU/MoA.

In addition, the European PhD Hub pursues research projects that have direct industrial application, while developing an understanding of how industry R&D projects function. This also represents an excellent opportunity to establish professional relationships and network with industry insiders. MoUs between the HEI and the industrial leaders will set the basis of such strategic industry R&D collaborations.

Joint PhD Agreement as in Section 4.4 and <u>Appendix A</u> will be signed by the parties identifying the key terms and obligations of the parties. It is the document which regulates the collaboration. The MoU is typically used as the basis for drafting the Collaboration Agreement. As described in Section 3, the following must be taken into account:

- 0. Establishing formal agreements between the partners.
 - The European PhD Hub online platform is providing templates and assists in the search and/or publication of cooperation calls. Afterwards, formal discussion between the International Offices of the HEIs building the new partnership will generate the corresponding MoU.
- 1. Defining the general rules for collaboration and company's contribution to the collaborative doctoral scheme.
 - This compiles the description of the research project and the definition of rights and duties of each party (decision-making procedures such as dealing with confidentiality issues). Refer to R2.3. University-Business Cooperation Guide for guidelines to this regard.
- 2. Defining the Collaborative Academic Programme and use of the platform.





The duration and timing of work at the partner institution(s), together with fee levels, must be determined as part of the formal agreement. Joint PhD students would be expected to undertake a selection of professional skills development modules during their programme. They should also be encouraged to attend one of the residential courses provided by the Graduate School. Thesis submission and Viva procedure are also agreed here.

- 3. Establishing Intellectual property ownership and rights over research outcomes with and/or without potential commercial use.
- 4. Outlining the formal requirements for admissions criteria, as well as reviewing individual applications to the programme(s).
- 5. Ensuring funding continuity. Determining financial provisions and allocation of resources as well as studying co-funding procedures between the university and the business.
 - Joint PhD students will normally pay the fee of the university where they are currently working. However, in exceptional circumstances, a modification of this can be considered. This must be agreed as part of the formal agreement.
- 6. Defining supervision team and roles, annual monitoring and periodic review process.
- 7. Defining type of Award and analysing programme accreditation opportunities.

The method is dynamic as it should be reviewed and revised with the different partners and/or newcomers into the local/European PhD Hub community.

The local PhD Hubs will share information both at local and European level thanks to an innovative online platform connecting the local IT platforms among themselves. PhD students, business and academic partners will be able to open calls through their local IT platform to present research goals and find partners interested in applying them, search for public/private research partners or open calls for applications to vacant PhD positions.

4.4. Agreement fields

We outline the main fields within the Joint PhD agreement as follows:

• Student details:

Name, ID, date and place of birth, mailing address, email, phone Qualifications





Graduate Programme name (Programme Leader name) at both HEIs

• Details of both HEIs:

Name, Faculty/School, address, represented legal authorities, Contact details of Degree Administrators & Academic Services

- Relevant legislation for both parties: Regulations around doctorate degrees, international certification and any relevant procedure
- Academic considerations: Research topic (rationale, tentative title)

Supervisors: Name, qualifications, experience

PhD completions

Rationale for selection of supervisors

Project reference (in the case of the student work on an

on-going research project between the HEIs)

Assessment:

CWK Requirements (enter specific courses to be taken and location)

EXAMINATION Requirements/Format

Proposed language of thesis and mandatory sections

Location

Examiners Panel formation

• Administrative considerations: Registration and enrolment

Tuition to be paid

Mandatory fees

Expected period of residency at each HEI:

Study period timetable

Arrangement for financial support:

Scholarship/fee-waiver Bursary/Travel support

Arrangement of financial support for supervision

Proposed form of Degree Awarded

Single certificate or separate certificates

• Definition of procedures for:

Sharing of information

Intellectual Property

Academic supervision and progress monitoring

Industrial support

Ethics assessment

With the support of Erasmus+





- Signatures and Acknowledgment and consent of Student
- Appendix: both HEIs' terms of reference including student discipline and appeals, and insurance, supervisory team amends and conflicts procedures and obligations. The programme needs the inclusion of Quality Assurance and Standards.

Refer to Appendix A for a Joint PhD Agreement template.

Conclusions

The European PhD Hub attracts students from all over the world encouraging international mobility of PhD students to both academic and business partners. For instance, the European PhD Hub platform represents a structured and trans-sectoral communication tool that not only multiplies the possibilities for finding converging interests between the triple candidate-HEI-business but also the possibility to acquire transversal competences and find interesting and complementary partners for research activities.

There are still many problems hindering the further development and growth of joint programmes, especially in the field of accreditation and recognition.

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Appendix A

Template for Joint PhD Agreement:

JOINT PHD AGREEMENT made effective this	day of	20
BETWEEN:		
AND:		
NOTE: This is not an application form for a PhD enrolled at application for admission to a PhD program.	program. Applicants no must submit	•
Student No.: Family Name: Given Names: Mailing Address:		
Email: Phone number(s): Previous degrees/qualifications: Graduate Program:		
Partner University: Name of Department/Graduate Program at Partn Which will be the Lead University?	ner Institution:	





Joint PhD agreements:
2. Research topic:
3. Academic rationale for utilizing a Joint PhD arrangement to realize the student's research program:
4. Supervisors, qualifications, and their supervisory experience to completion at Lead University:
Director of Studies:
Co-supervisor:
Additional supervisory committee member(s):
5. Supervisors, qualifications, and their supervisory experience to completion at Partner University:
Supervisor:
Additional supervisory committee member(s):
6. Expected period of residency at each university (minimum 12 months at each institution): NOTE: List specific periods of time, e.g., Visit 1: mm/yy to mm/yy. Visit 2:



mm/yy to mm/yy etc.



Lead University:
Partner Institution:
7. Proposed language of thesis:
8. Coursework required (enter specific courses to be taken) and location to be completed:
9. Comprehensive exam requirement and format: (Required)
10. PhD Examination. The examination of dissertation and student will be coordinated by the Lead University and must meet the requirements of both universities. Lead University policy for PhD examination, including oral defense:
Lead University requirements for dissertation preparation and submission:
10a. Is an External Examiner required at the Partner University?
10b. Proposed composition of Examining Committee (names of specific individuals not necessary):
10c. Proposed location of oral examination:
11. Arrangements for payment of fees (Normally, tuition is paid at Lead University throughout the program. Other mandatory student fees are normally paid at the university where the student is resident in a given term. Unless stated otherwise below, the university at which tuition or student fees are paid will retain those fees for its own use). Tuition to be paid at: Mandatory student activity fees to be paid at:
12. Arrangements for financial support for student. Scholarship/stipend: Travel support:





13. Arrangement of fina	ncial support for supervision/examination.
Supervisor travel:	
Examiner travel:	
Videoconferencing, etc.	
_	
14. Proposed form of De	egree Awarded:

- --- [A **single** degree certificate with crests from each university. It is the responsibility of the Lead University to produce this certificate. Wording on certificate(s) and transcripts must state that the degree is "Awarded as a single degree under a Joint PhD arrangement" and include the names of both Lead and Partner universities.]
- --- [**Separate** certificates from each university. Both degrees should have international mention.]
- 15. Additional Terms of Reference: The Additional Terms of Reference attached hereto apply to this Joint PhD project and form part of this Joint PhD agreement.
- 16. Enuring Effect: This agreement shall enure to the benefit of and be binding upon the parties hereto and their representatives, successors and other legal representatives.

Lead University	Partner University
1) Lead Supervisor: Name: Signature: Date:	5) Lead Supervisor: Name: Signature: Date:
2) Additional signatory (if required): Name: Title: Signature:	6) Additional signatory (if required): Name: Title: Signature:





Date:	Date:		
3) Additional signatory (if required): Name: Title: Signature: Date:	7) Additional signatory (if required): Name: Title: Signature: Date:		
4) Additional signatory (if required): Name: Title: Signature: Date:	8) Additional signatory (if required): Name: Title: Signature: Date:		
Contact Details of Degree Administrator at Lead University Name: Email: Phone: Fax:	Contact Details of Degree Administrator: Partner University Name: Email: Phone: Fax:		





Acknowledgment and Consent of Student

1, the undersigned, nereby:
1. Acknowledge and understand the requirements for my PhD studies as set out in this Joint PhD agreement and the applicable rules, regulations and policies of the two universities;
2. consent to the processing of my personal information and the transfer of such information between the two universities for all purposes in conjunction with my PhD studies and this Joint PhD agreement; and
3. understand that my personal information is collected by under the authority of
Signature:
Printed Name:
Date:





Additional Terms of Reference

ADMINISTRATIVE TERMS

Article 1: Joint Degree

1.1 The two universities identified as the Partner University and the Lead University agree to jointly award a single PhD degree upon the student's successful completion of the approved collaborative PhD education and research program described in this Joint PhD agreement.

Article 2: Lead and Partner University

- 2.1 The Lead University is responsible for the overall administration of the student's work and the final examination process.
- 2.2 Regarding the different nomenclatures for doctoral degrees in different locations, the Lead University shall determine the nomenclature adopted for the jointly awarded degree in cases where only one degree parchment is created.
- 2.3 The student shall be bound by the policies of both universities.
- 2.4 Not less than one calendar year of the doctoral study period will be spent at each of the two universities.

Article 3: Sharing of information

3.1 Personal information of the student will be shared between the two universities to facilitate admission, enrolment, etc. for the Joint PhD program. Each university will obtain the necessary student consents for the processing of their personal information and the transfer of such information between the two universities for all purposes in conjunction with their PhD studies and this Joint PhD agreement.

Article 4: Student Discipline, Academic Progress and Appeals



of the European Union



4.1 Decisions on disciplinary matters associated with violations of academic policy or student conduct and discipline standards, and decisions with respect to the student's academic progress, including any appeals of such decisions, shall be made according to the existing policies and requirements at each university. The universities may consult on specific issues and shall cooperate with each other in investigating any complaints submitted by the student, where possible; however, each university will adjudicate cases independently. Either university may make a decision that will have the effect of requiring the student to withdraw from the Joint PhD program. In such case either university may exercise its discretion to allow the student to continue in one of its other programs in accordance with the policies of that university.

Article 5: Insurance

5.1 Mandatory student fees paid by the student to a university may provide health insurance coverage while the student is attending that university, subject to certain limitations under that university's health insurance policy. Notwithstanding the foregoing, it is the sole responsibility of the student to ensure that they obtain adequate insurance coverage to meet their needs for the time the student is enrolled in the Joint PhD program, including any travel abroad.

Article 6: Intellectual Property

6.1 Unless agreed to otherwise by the universities in writing, in the event that intellectual property is created as a result of this Joint PhD project, the universities shall work together in good faith to determine their relative contributions of ownership of, the division of any proceeds arising from, and the institution that will be responsible for managing the protection and exploitation of, such intellectual property.

6.2 The student is required to indicate the affiliation with both universities in any work published as a result of this Joint PhD project. All other authorship and publication matters with respect to work produced by the student in the context of this Joint PhD project shall be in accordance with good scholarly practices and the





policies of each university.

PEDAGOGIC TERMS

Article 7: Supervision

7.1 The supervision and training of the student will be provided by two co-supervisors, one from each university. Each of these individuals must be authorized to act as a doctoral supervisor at their respective university. In addition, it is expected that a supervisory committee, consisting of the two supervisors and at least two other individuals qualified to be a supervisor under both universities' policies, will be established to provide broad guidance and approval of the student's research.

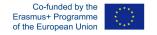
Meetings of the supervisory committee may take place by way of videoconference.

7.2 The co-supervisors will provide the resources necessary to permit the realisation of the research for the duration of this Joint PhD agreement, within the limits of available funds.

7.3 The co-supervisors will fully exert their function of supervisor in relation to the student and will consult with each other regularly to support the progression of the Joint PhD project. The co-supervisors will hold an actual or virtual meeting with the student at least once a year for the duration of the Joint PhD project. Supervision meetings at the university where the student is currently studying shall be held at regular intervals.

7.4 The research will be carried out at the two universities in accordance with the provisional schedule provided in this Joint PhD agreement. If required, this schedule may be varied by written agreement of the two universities provided that the student is given reasonable notice of such changes.

7.5 Industrial Support





Article 8: Degree requirements

8.1 Joint PhD students must satisfy the admission requirements of, and be admitted by, both universities. The student must also meet all academic requirements of the doctoral degree at each university. This might include a comprehensive examination, normally completed within two years of enrolment, and may include coursework.

8.2 The student's overall academic program, as stipulated in this Joint PhD agreement, shall be subject to the normal quality assurance policies and procedures of both universities, including but not limited to the normal annual academic audit or review processes, and the two universities will work together to ensure the program meets their expected standards.

8.3 Degree requirements will be carried out at the two universities accordance with the provisional schedule provided in this Joint PhD agreement. Degree requirements must be completed within six years of initial registration in the doctoral program. Extensions may be granted with the permission of both universities in accordance with their policies.

Article 9: The Examination

9.1 The Lead University will be responsible for the administration of the final doctoral examination, and will be the location for the oral defense. The consideration of the thesis and the doctoral examination, including the composition of the examination committee, must comply with the policies and requirements of both universities, unless otherwise agreed by the universities in writing.

9.2 The thesis will be prepared and formatted for examination and final submission according to the applicable policies and regulations of the Lead University.

9.3 An examiner/s that is/are external to both universities must have a fundamental role in the evaluation of the thesis. The exact composition of the examining committee must be approved by the Partner University at least six weeks prior to the examination.





9.4It is the student's responsibility to provide all necessary documents, including the report of the external examiner/s and the final recommendation of the examining committee to each of the two universities' administration, according to the rules in force at the two universities.

Article 10: Degree Conferral and Graduation

10.1 Upon completion of all degree requirements and related administrative processes, the universities agree to jointly award a single doctoral degree. There will be either one degree parchment with the names and insignia of both universities, the form of which must be approved by both universities OR two degree parchments, one from each university and each stating the degree was awarded as a single degree under a Joint PhD arrangement with <name of other university>.

10.2 The student may elect to attend graduation ceremonies at either or both universities, subject to the regulations and procedures of each university.

Article 11: Official Filing

11.1 The student's thesis must be submitted to both universities through their normal mechanisms.

Article 12: Use of Name and Trademarks

12.1 Neither university grants the other the right to use its name, crests or logos in any way without the prior written consent from the other. Each university has the right to specify the form and manner in which its name, crests and logos are used by the other. Should a university request in writing that the other cease using its name, crests or logos in a particular manner, the other university shall cease such use immediately.





Article 13: Duration of the Agreement and General Terms

- 13.1 Notwithstanding its signature by all the parties, this Joint PhD agreement comes into effect on the date first written above and will continue until the termination of the student's enrolment in the Joint PhD program, whether by way of completion of or withdrawal from the Joint PhD program.
- 13.2 In the event that any matters related to this Joint PhD agreement are in dispute between the two universities, each university's Dean (or equivalent position) of the faculty in which the student is enrolled in the Joint PhD program shall promptly but in any case, within twenty one (21) days, make a bona fide attempt to resolve such dispute.
- 13.3 These terms are in addition to, and not in substitution of, the rules of the universities applicable to the student.
- 13.4 Any provisions of this Joint PhD agreement that by their nature operate beyond the expiry or termination of this Joint PhD agreement shall survive such expiration or termination.
- 13.5 This Joint PhD agreement, any schedules and any modifications to such schedules constitute the entire agreement between the parties with respect to the Joint PhD project and no amendment of this Joint PhD agreement will be valid unless such amendment is in writing and signed by both parties
- 13.6 This Joint PhD agreement may not be assigned by either party without the prior written consent of the other party.
- 13.7 This Joint PhD agreement may be executed in counterparts and by facsimile, each of which will be considered an original, and together will be considered one and the same document
- 13.8 This Joint PhD agreement shall enure to the benefit of and be binding upon the parties hereto and their representatives, successors, permitted assigns and other



legal representatives.

Appendix B

Please find below the ${\it University~Partners'}$ responses to question naire

https://goo.gl/forms/PF4CUpokyg9eTeus1

Issue	Details	BCU	Uni of ALCALA	ULO	AUTh
Joint or Dual?	A Joint PhD is a single PhD degree jointly awarded by two HEIs. It is not two PhD degrees. One jointly-awarded PhD (one diploma with the two university logos). The reason universities offering double degrees rather than jointly-awarded degrees is often practical in nature, for example one country's legislation does not allow joint-degrees.	Joint PhD Degree is possible	Joint PhD is possible and usual (especially with South American partners). Two Diplomas are got by the student	Joint PhD Degree is possible PhD Degree based on the Cotutelle agreement between University of Lodz and other University	





Applicatio n, Enrolment and Programm e	A Joint PhD student's application, enrolment and academic programme must meet the PhD requirements of BOTH HEIs. A Joint PhD is a collaborative academic programme of scholarship & research designed, supervised and examined by faculty from both HEIs.	BSc and MSc Certificate BSc and MSc Programmes with grades Online Application Portal at http://bcu.ac. uk/courses/se arch?term=&ty pe=5&mode=&j an= At least 2 references Follow the postgraduate research degrees admissions schedule at http://www.b cu.ac.uk/Dow nload/Asset/c fd7aea6-029b- e411-b649-002 6558290c8 There is not collaborative academic programme of scholarship & research at BCU at this moment	Yes, this is one important point. A bilateral agreement is signed by both organizations to include all local regulations. The most crucial point is the Defense of the PHD. So, in the agreement the conditions for the students in that sense are detailed. It is usual some flexibility for it. A joint PHD forces two co-supervisors from each Univ. It means that Research collaboration is mandatory. Student only pays in his local organization	
	The academic & research programme of a student enrolled in a Joint PhD should be based on ongoing or developing research	 PhD HUB members Cisco Microsoft Other universitie s across Europe 		





	collaboration between research groups in the two participating HEIs and may also reflect an active collaboration between two HEIs that are part of a network. Normally, the student will pay tuition at only one HEI, which is designated as the "Lead" university. Mandatory student fees will normally be paid at whichever institution the student is in residence in for a given academic term.	A list of current fees is available at https://icity.b cu.ac.uk/resea rch-communit y	Only in one HEI	
Funding	Financial support for the student is to be worked out between the co-supervisors at the two institutions and reflected in the Joint PhD Agreement.	https://www.l everhulme.ac.u k/funding/gra nt-schemes/st udy-abroad-st udentships	No specific financial support for co-supervisons. However, Alcala students can apply for a PhD Scholar ship what can be used for a Joint PhD	



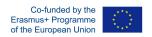


Possibilitie s for making it happen	1. Pre-define d project (which happened to be done jointly at two HEIs) 2. Established high-level university schemes (between 2 or more HEIs) 3. Joint-PhD with two HEIs of choice, which do not already have a formal agreement	2 nd option	Several (Brazil) Some German and French Univs working in Engineering area (several fields)	
Admission requireme nts	Joint-PhDs are not an easy option and they will not suit all students. Identify 3-4 criteria.	 BSc and MSc grades MSc related to the PhD proposed topic Oral presentati on Experie nce in teaching Extra experiencc e in industry 	1. BSc and MSc grades	



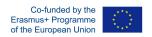


	1	I		I	
To agree	Which regulations would it follow when going to conferences or if doing fieldwork in a third country?	Both HEIs should provide the student with support for attending conferences or doing fieldwork	It is not usual to attend to conferences in the other HEI		
	Affiliation when publishing	Both HEIs will appear in author header	Yes, both HEIs are usually included		
	What language will you have to submit the thesis?	English; containing an abstract in the local language	In one of the official language with an extended abstract in the other lang or in English (full)		
	Which assessment procedure will be imposed? Accommodation support?	The one where the student is paying the tuition See http://www.bcu.ac.uk/student-info/accom	The one where the student is paying the tuition In UAH is possible if it is prepared in advance		
	Visa procedures?	modation Visa should be requested	EU students don't need a VISA		
Joint PhD Agreement fields	Student details Name of both HEI Identification of Lead HEI Research topic Details of Lead supervisor and co-supervisor Expected period of residency at each HEI Language of thesis CWK Requirements	+ Rationale for the topic Rationale for the selection of supervisors Ongoing research project? Ethics assessment	Organizations details, Legal people to sign the document, Head of PhD Programme, co-supervisor, national and local regulations, period to stay in each organization, Name of the PhD programmes, regulations for the PhD		





	EXAM Requirements/ Format: Location Panel formation Fees payment Form of Degree Awarded: A single certificate Separate certificates Contact details of both HEIs' academic services Definition of procedures for: Sharing of information IP Progress Monitoring Signatures Appendix: both HEIs' terms of reference		defense, main research line, a full document with a PhD proposal,	
Choose and rank a number of 4 main benefits	1. Strengthen a research collaborati on. 2. Access to compleme ntary facilities and resources 3. Exposure to two cultural approaches to research 4. Internation al mobility 5. Enhanced acquisition of research and transferabl e skills, such as negotiation	2 3 7 6	8 1 4 2	





skills, use of videoconfe rencing, adaptabilit y 6. Better networking opportuniti es for future job prospects 7. Local industrial/ public sector involvemen t in two countries 8. Dual supervision allowing compleme
8. Dual supervision

