

# REDEEM – WP 1 – State of the Art

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## *Executive Summary*

Whereas most studies analyze general importance of various student mobility programs to employability, the present state of the art focuses on a special type of student mobility programs – Joint Programs. Joint Programs represent a major effort for the universities and students involved and are far more resource-intensive and demanding than other student mobility programs. The present report describes Joint Programs of the participating higher education institutions (HEI) and places them in the national and European contexts of HEI policies. The state of the art highlights current situations of Joint Programs in the respective countries and the ways they are embedded in their national and university strategies. Moreover, an overview of the Joint Programs of the project partners is given and common definitions of the terms used for this type of students' mobility are suggested.

It is widely agreed on international mobility having a positive impact on skills and competences as well as on personal development, which leads to better employability and facilitates transition to the labor market. Joint Programs enjoy a high reputation due to their high complexity and quality level. However, employability of Joint Program students has hardly been studied so far. Due to the lack of studies focusing on this special type of students' mobility, this report compiles the few existing findings on the impact of Joint Programs on students' employability. As Joint Programs stand for student mobility "par excellence", the impact on students' employment opportunities is assumed to be outstanding. This hypothesis will be tested by the following quantitative and qualitative survey of the project.

To analyze the current situation, all project partners contributed literature, information about their Joint Programs and their own university strategy as well as their national perspective.

The analysis as an introduction to the topic will be completed by the results of the quantitative survey and qualitative interviews made during the project.

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# 1 Joint Programs

## 1.1 Joint Programs and EU Policy

The trend to collaborate on curricula began in the 1990s when these programs were considered to be of vanguard character (Goodman, Rüländ: 2013). Since the Bologna process started in 1999, Joint Programs have been on the agenda. In order to strengthen the European dimension of higher education (HE) and graduate employability, the demand for modules and courses with “European” content and curricula offered by partner institutions from different countries and leading to a recognized joint degree was constantly renewed (Prague Communiqué 2001: 2). Whether Bergen (2005), London (2007), or Bucharest (2012), Joint Programs (JP) were on the agendas of all Bologna conferences referring to student mobility, curriculum development, recognition, and quality assurance supported by several EU-funded programs. The link between higher education and employability is prominent throughout the Bologna process, as can be seen in the table below, which retraces the Bologna conference and its topics (JDAZ 2015: 14; Bologna Process Implementation Report 2015: 2).

Especially the ERASMUS MUNDUS (2005)/ Atlantis experience shows that the EU gives high priority to Joint Programs and encourages their establishment and joint degrees in the European Higher Education Area (EHEA) (Reichert/Tauch 2005). In 2007, 60% of institutions in the EHEA offered Joint Programs and 66.3% of the countries had legislation allowing and encouraging the establishment of Joint Programs and joint degrees. In 2009, 2,500 Joint Programs existed in the EHEA and in 2011, 84% of universities worldwide offered Joint Programs (Obst et al. 2011: 10 ; Raugvargers et al. 2007;2009; Croisier et al. 2007). The impetus given at the European level is enhanced on the national level, where legislative obstacles are removed to encourage the establishment of integrated curricula that lead to joint degrees. The EHEA has shaped Joint Programs and vice versa (Monné, Morel, 2013:102).

## The Bologna Process: from Sorbonne to Bucharest, 1998-2012

<b>Mobility of students and teachers</b>	Mobility of students, teachers, researchers and administrative staff	Social dimension of mobility	Portability of loans and grants Improvement of mobility data	Attention to visa and work permits	Challenges of visa and work permits, pension systems and recognition	Benchmark of 20 % by 2020 for student mobility	Explore ways to achieve automatic recognition of academic qualifications
<b>A common two-cycle degree system</b>	Easily readable and comparable degrees	Fair recognition Development of recognised Joint degrees	Inclusion of doctoral level as third cycle	QF-EHEA adopted National Qualifications Frameworks launched	National Qualifications Frameworks by 2010	National Qualifications Frameworks by 2012	New roadmaps for countries that have not established a national qualifications framework
		<b>Social dimension</b>	Equal access	Reinforcement of the social dimension	Commitment to produce national action plans with effective monitoring	National targets for the social dimension to be measured by 2020	Strengthen policies of widening access and raising completion rates
		<b>Lifelong learning (LLL)</b>	Alignment of national LLL policies Recognition of Prior Learning (RPL)	Flexible learning paths in higher education	Role of higher education in LLL Partnerships to improve employability	LLL as a public responsibility requiring strong partnerships Call to work on employability	Enhance employability, lifelong learning and entrepreneurial skills through improved cooperation with employers
<b>Use of credits</b>	A system of credits (ECTS)	ECTS and Diploma Supplement (DS)	ECTS for credit accumulation		Need for coherent use of tools and recognition practices	Continuing implementation of Bologna tools	Ensure that Bologna tools are based on learning outcomes
	<b>European cooperation in quality assurance</b>	Cooperation between quality assurance and recognition professionals	Quality assurance at institutional, national and European level	European Standards and Guidelines for quality assurance adopted	Creation of the European Quality Assurance Register (EQAR)	Quality as an overarching focus for EHEA	Allow EQAR registered agencies to perform their activities across the EHEA
<b>Europe of Knowledge</b>	European dimensions in higher education	Attractiveness of the European Higher Education Area	Links between higher education and research areas	International cooperation on the basis of values and sustainable development	Strategy to improve the global dimension of the Bologna process adopted	Enhance global policy dialogue through Bologna Policy Fora	Evaluate implementation of 2007 global dimension strategy with aim to provide guidelines for further developments
1998 Sorbonne Declaration	1999 Bologna Declaration	2001 Prague Communiqué	2003 Berlin Communiqué	2005 Bergen Communiqué	2007 London Communiqué	2009 Leuven/ Louvain-la-Neuve Communiqué	2012 Bucharest Communiqué

Today, the concept of Joint Programs has spread globally, including HE systems on other continents. This development may also be considered a response to the European developments (JDAZ 2105: 15; Obst et al. 2011).

Joint Programs represent an essential means to broaden the scope of education offered, advance internationalization of HEI, reach international reputation and visibility, and to strengthen partnerships of academic and research institutions with strategic partners (Goodman, Rüländ: 2013; Obst et al. 2011: 28). Although Joint Programs enjoy a high reputation, they are still not in the center of international activities of HEI because of their complexity and their costs. Comprehensive development, sustainable funding, and marketing strategies are needed by the universities to maintain the high standard of Joint Programs (Obst et al. 2011: 39ff.). Although Joint Programs have become a global trend by now, it is too early to assess their impact, as the number of participating students still is very small (Tauch 2009). Student mobility rates have increased slightly since the 2012 Bologna Implementation Report, but still only a minority of students' benefits from such experience (Bologna Process Implementation Report 2015). Joint Programs may not lead to the substantial increase in mobility that was expected by Bologna reformers. However, it is not possible at the moment to assess precisely whether the EHEA collective target of 20% mobility by 2020 will be reached or not, as comprehensive and harmonized data collections are still lacking – particularly for credit mobility, such as Joint Programs (Bologna Process Implementation Report 2015: 23).

The trend to develop joint and double-degree<sup>1</sup> partnerships started in the 1990s in Europe and is now global, with emerging countries being the new focus (Obst et al. 2011: 39ff.). New developments, especially those resulting from ERASMUS+, the Europe 2020 strategy, and EU education and training programs for 2014-2020, will show how Joint Programs will develop within EHEA and beyond (Monné, Morel: 2013).

## 1.2 Joint Programs and National Policy

The European Union influences national higher education policy through political cooperation and the provision of several important transparency tools to facilitate processes:

- The European Qualifications Framework applies to all types of education, training, and qualification and acts as a translation device to make national qualifications better readable across Europe. It is based on learning outcomes and competences as well as on credit ranges in the first and second cycles (JDAZ 2015: 19).
- The application of the ECTS credit transfer and accumulation system goes without saying in HEI offering JP, although difficulties may arise when using the ECTS grading scheme for the conversion of grades within a JP.
- ENIC-NARIC centers, several guidelines, such as the *European Area of Recognition Manual for Higher Education Institutions*, and the *Multilateral Agreement on the Mutual Recognition of Accreditation Results* for Joint Programs enable HEI to check the legal status and accreditation of degrees awarded by JP partners.
- The Lisbon Recognition Convention – LRC and Diploma Supplement for mutual recognition of education qualifications and degrees.
- ENQA standards and guidelines for quality assurance in HE.

“Even though Joint Programs have an international character, it is important to bear in mind that the legal power related to higher education policy and the implementation of Joint Programs lies within

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<sup>1</sup> Joint Program – JP ; Double Degree – DD as one possibility of JP

the national or sub-national legislation and applies also to international cooperation activities. It is therefore important to first and foremost carefully check national regulations and not only European regulations. Higher education policy is developed and implemented at the national level by the relevant ministry of education or science.” (JDAZ 2015: 20)

The following paragraph will outline the national strategies of the REDEEM partners with regard to Joint Programs.

**Belgium (French-speaking region):** In September 2013, a decree, “Décret Paysage” (“Landscape Decree”), entered into force, which profoundly changed the landscape of higher education in French-speaking Belgium. When it comes to mobility and, more precisely, to Joint Programs, the new decree is rather accommodating and does not introduce extra requirements compared to the previous Bologna Decree that governed higher education after March 2004. Under Bologna, for example, 20 credits for a first-cycle joint degree and 15 credits for a 2nd-cycle joint degree had to be obtained in the Belgian institutions of the Communauté française. Under the currently valid decree, each institution of the Communauté française involved in a joint degree program has to ensure a minimum of 15% of all teaching activities. This percentage is lower than 25% initially proposed in the draft version of the decree. However, this restriction does not apply to joint study programs organized within the framework of the EU, such as the Erasmus Mundus programs. The institutions are given flexibility as regards the type of degrees awarded: A single degree conferred jointly by all institutions taking part in the program or several degrees issued by the different partner institutions according to their own laws and competencies.

**Germany:** In April 2013, the German Federal Government and the sixteen states adopted a joint strategy to further promote the internationalization of German universities. Federal and state governments defined nine areas of activity. The activity area 5 aims at increasing students’ mobility through better recognition of study achievements reached abroad and in international study programs also leading to a double degree. The aim is to exceed the European target of 20% of all graduates experiencing mobility until 2020 (Strategiepapier 2013: 16f.). Since the implementation of the Bologna process, the German Academic Exchange Service (DAAD) and the Federal Ministry of Education and Research (BMBF) have provided the HEI with funding in order to integrate structured mobility into internationally oriented degree programs (Thimme: 2013). DAAD and BMBF started funding study programs that lead to a recognized joint or double degree in 2005 and latest figures reveal more than 500 JP/DD with a strong focus on German-French partnerships which are funded through the Franco-German University (FGU). Due to the exceptional and well-institutionalized partnership between France and Germany, FGU DD programs have an outstanding position. Most of the JP in Germany are offered on the master’s level and confer two national degrees rather than one joint degree. JP in Germany are typically offered with European partner institutions, followed by institutions in Asia and North/South America. DAAD and BMBF are convinced that JP contribute to the prestige of a university and provide students with intercultural competences and dual qualifications which are highly valued on the labor market, which is why the development of JP remains one of the top funding priorities of DAAD and BMBF (Thimme: 2013).

**Italy:** An important turning point for the development of joint degrees was the approval of the Regulation on University Autonomy in 1999. It completed the process of university independence, also in view of the process of convergence of the policies of the European countries proclaimed by their ministers for education in the Sorbonne and Bologna declarations. The reform was also

motivated by the need for the universities to open internationally. A number of provisions in the Decree no. 270 of October 22, 2004 that substituted the previous Regulation no. 509/99 allow universities to engage more intensively in the international arena: Bsc., Msc. and PhD. classification, the introduction of “university master” programs (60 ECTS), the possibility to award joint degrees with foreign universities; the recognition of study periods abroad, of credits and qualifications awarded in other countries for the purpose of pursuing further studies; the obligatory study of another language of the European Union and the awarding of credits for such studies; the possibility to pass the final degree examination in a foreign language; the introduction of the Diploma Supplement based on the model agreed at the European level...

With specific reference to inter-university cooperation and the award of joint degrees, Article 3 of Decree n. 270/2004 provides that “further to agreements in this regard”, Italian universities may award first and second degrees “also in conjunction with other Italian or foreign universities.” The rules governing “the procedures for the award of joint qualifications” are delegated to the general academic regulations of the university (Article 11, paragraph 7, subparagraph o). In the case of joint degrees with foreign universities, the procedures for imparting the qualification concerned should be expressly regulated in the respective inter-university agreements, given the differences in the national rules among the various countries.

**Portugal:** The Portuguese Education Ministry has no official policies for the creation or offer of double degree programs. The absence of active policies is due to the fact that double degree programs are financed by the EU or by private entities. Since there is no Portuguese public funding of double degrees, the Portuguese government opted to follow only the EU policies regarding the creation or offer of double degree programs.

**Sweden:** The latest national strategic document directly dealing with internationalization was set up in 2004 by the Swedish parliament, *Ny värld – ny högskola* (Proposition 2004/05:162). This document was meant to support the introduction of Bsc., Msc., and Phd. qualifications and to support a credit system that harmonizes well with ECTS. It was triggered an investigation of how Sweden could adopt joint degrees. This investigation was completed in 2008 with recommendations for how to establish joint degrees for Swedish institutions (Ds 2008:80). Joint degrees were added as an option for Swedish institutions in January 2010. The purpose of Joint Programs leading to joint degrees was seen, to cite the inquiry, “to gain profits of cooperation for the institutions and to strengthen the international dimension in education.” (Johansson, L: *Gemensam examen*, p 74. Ministry of Education, Ds 2008:80). Swedish legislation understands a joint degree to be a degree that is reached after completing a program run by two or more institutions with a joint curriculum, and with the institutions being responsible for separate defined parts constituting the program. The national degrees conferred must be on the same academic level. The degree certificate must be one joint document, or separate documents that are referring to each other. The joint degree must be regulated in a written agreement that must be signed by the cooperating institutions before admission to the education program. The joint degree does not mean that the Swedish HEI can award degrees other than the nationally accredited degrees. The degrees each institution is entitled to award and the learning outcomes are the same. The inference of tuition fees was an even bigger change for the higher education sector. Starting in 2011, the Swedish HEI had to charge tuition fees from non-European students to cover the full cost of the education, while no tuition fees had to be paid by European students. This is for first- and second-cycle education, while third-cycle studies still are cost-free. Previously, university education in Sweden had been free of charge by law. This

reform obviously is a challenge for Swedish HEI when it comes to cooperating in joint European programs.

### 1.3 Joint Programs and University Strategies in the REDEEM Consortium

The latest study underlines the importance of integrating JP into the institutional strategy in order to maintain them in the long term (Obst, Kuder et al.: 2011, pp. 32-39). “Even though joint degree programs are most often initiated by university professors and are largely motivated by the academic interests of their respective departments, such programs require the support of the university on the whole to provide financing, academic and administrative resources, and marketing measures for the degree programs.” (Thimme 2013: 118). JP require a high involvement and are often only one part of the internationalization strategies. In the following paragraph, the university strategies of the REDEEM partners are outlined.

**Université Catholique de Louvain (UCL)/École polytechnique de Louvain (EPL):** The UCL School of Engineering (EPL) has been managing double degrees since the mid-1990s. Initially, this work was accomplished within the Top Industrial Managers Europe (T.I.M.E.) network. In the early 2000s, EPL belonged to the small group of universities that designed the canvas for the CLUSTER dual master scheme. In more recent years, internationalization has become a priority in which the school is willing to invest even more time and resources. The development of JP is an important part of this internationalization strategy. EPL has been strongly involved in both phases of the Erasmus Mundus programs and it is currently managing 19 double degree agreements (the EU countries involved are France, Germany, Italy, Spain, and Sweden; the non-EU countries are Brazil, Canada, Japan, and Turkey). Initiatives to develop new JP result from the partners’ shared interest.

**Instituto Superior Técnico (IST):** IST’s internationalization strategies are aimed at increasing the number and diversity of international students by revising the curriculum offered, focusing it on specific international audiences, and promoting partnerships with international companies. Regarding the creation of double degrees, there is no particular strategy. Elaboration of new programs depends on the common interest in a specific area of knowledge or on the proposal of one of the partners. Currently, the networks joined by IST undertake considerable efforts to obtain double degree programs. Countries that are emerging countries in terms of student mobility, such as China or Australia, are IST priorities for the next years.

**Karlsruhe Institute of Technology (KIT):** KIT has 24 international double degree programs on the Bsc. and Msc. levels and a clear preference for double degree programs, as real joint degrees are too difficult to establish from an administrative point of view and do not represent any real advantage for the students (labor market recognition, legislation, accreditation of JP) (Obst et al. 2011: 6). The JP (DD) strategy is embedded in the general internationalization strategy of the university in order to broaden the institution’s portfolio, adapt to the globalized labor market demands, and enhance international visibility in order to attract international talents. The JP’s clearly contribute to the attractiveness of KIT. For this reason, their development is supported by internal guidelines and the German-French Initiative that has rich experience in the area of German-French double degrees. (More than half of the international DD at KIT are programs with French partner HEI.) Double degrees at KIT are based on strong partnerships and integrated into existing study programs. The development of new JP is to be based on already existing strong partnerships and to be of strategic interest for KIT. Each department is supposed to offer a high-quality international JP in the future.

**Politecnico di Torino (PT):** PT has 112 double/joint degree agreements and offers 4 joint programs at Bachelor and Master of Science levels. Even if national legislation has made it possible to implement integrated curricula at an international level and to award joint degrees, Politecnico di Torino, considering the complex procedures for awarding joint degrees, prefers double or multiple degrees that generally do not meet with any obstacles in national legislations of the partner university country.

The oldest joint program (Diploma Universitario Europeo in Produzione Industriale - European university diploma in industrial production) was launched in 1985 together with the University of Brighton. The originality of this program lies in the innovative nature of the professional it creates as well as in the new educational model adopted: The studies must be planned and organized symmetrically in Italy and in another country. This means that agreements between the universities concerned have to be signed, which specify the resources for realizing the integrated project, the study periods to be spent by students at the home and host universities, and the mutual recognition of examinations and teaching modules. Also the internship is to be done in two periods at companies located in two different countries. At the end of the study and training period, students are awarded two qualifications: The Italian diploma universitario europeo in produzione industriale and the corresponding foreign qualification from the partner university. Recently, the joint program was turned into a bachelor's degree program (according to the Bologna process) together with Universitat Internacional de Catalunya UIC, Barcelona (Spain), Athlone Institute of Technology – AIT, Athlone (Ireland), and École Supérieure de Commerce – IPAG, Nice (France).

**KTH Royal Institute of Technology (KTH):** KTH's development plan for 2013-2017 states that the development of structures for dual and joint degrees for the education programs on all levels should be intensified (p. 12). Joint programs are intended mainly to give rise to international collaborations. A guideline for joint degrees in the first, second, and third cycles was established in 2014 to outline the aims and requirements KTH has for establishing joint degree programs. Based on the concept of joint degrees, this guideline was inferred by the Swedish government in the Higher Education Ordinance in 2010. Currently, a guideline is being developed for the initiation of *Cotutelle* cooperation that is for the joint supervision of doctoral students.

KTH started to develop double degree exchange in the 1980s already within the T.I.M.E. Association, a network of engineering schools in Europe established in 1989. Realizing that the member institutions' alumni normally become leaders in companies and other organizations and that these positions more and more require or at least benefit from intercultural and linguistic competencies, KTH wanted to encourage its engineering students (students studying for the 5-year engineering diploma) to pass a longer time of studies abroad, the objective being to develop an extra home working market. The development of the double degree concept within T.I.M.E. was instrumental for accepting the idea to encourage students to do a very substantial part of their program at a partner institution and to award the engineering diploma to students who would come to KTH for the latter part of the programs only. The T.I.M.E. double degree cooperation also proved a good way of attracting very good students to KTH, who contributed to the student body, as PhD candidates, and as alumni. This model of mobility was also used with institutions outside of the T.I.M.E. Association. In parallel, KTH decided to support student exchange and have directors of studies in place on school level to be in charge of the study plans and validation of studies. These professors were given a comprehensive view of their respective education programs and together with administrative staff, they created a "one-stop shop" that made it easier for the students to discuss and get approved their study plans. At this stage, internationalization was still mainly driven on school level and, hence, was

dependent on motivated individuals and other local factors. The central international office was only staffed with three persons. One person was in charge of central coordination of the T.I.M.E. cooperation, but the involvement in the schools varied. Later, KTH also developed cooperation centrally for the two-year masters' programs within the CLUSTER network. A convention was signed in 2007. With the signing of the convention, KTH supported free mobility between the members' masters' programs in principle. But mobility turned out to be smaller than hoped. A template for the bilateral agreements was developed. Within this framework, the students study one year at each of the two cooperating institutions to be eligible for both institutions' masters' degrees. This mobility scheme needed a very good match of the two programs and consequently also motivated program directors to work on the mapping of the two curricula. The CLUSTER dual master turned out to be a good preparation for developing consortia to apply for Erasmus Mundus master's courses. Mundus was launched in 2004. KTH has been very active in Erasmus Mundus programs on the master's and PhD levels. This was an effort to strengthen KTH's position as an international university and also as a strategy to counteract the decline in non-European students following the introduction of tuition fees in Sweden. A part of this transition of the student body into a very international one was the development of teaching programs in the English language. In retrospect, this was a prerequisite for participation in the European Mundus programs. This basically bottom-up process was started by masters' programs that were not satisfied with their recruitment of national students and, hence, wanted to attract international students. The first master's program offered completely in English started in 1994 in environmental engineering and planning. After this, more and more programs switched into English. Today, it is standard. 60 of the 63 master's programs offered in 2016 were taught in English.

**Technische Universität Darmstadt (TUDa):** TUDa is further developing its double degree strategy and recently, started to plan an official formalization of academic objectives of its double degree programs. In addition, the TUD's double degree strategy is embedded in the overall internationalization strategy of the institution. Through double degree programs, TUDa offers a variety of international and high-quality studies, with which the institution wants to be highly attractive for selected students. Cooperation with universities having a different focus in engineering education adds value in professional terms. Moreover, such programs are a tool to continuously maintain and deepen relations with partner universities. TU Darmstadt aims at the development of selected double degree programs (focus on the master's level) with excellent international partner universities assuming an expected corresponding demand.

#### 1.4 Joint Programs and Terminology in the REDEEM Consortium

The REDEEM project members agree on the added values of JP, as is outlined in literature (Goodman, Rüländ: 2013):

- Reach international reputation and visibility.
- Strengthen academic and research partnerships.
- Broaden academic scope of offers and increasing enrollments of foreign students.
- Students gain intercultural competences and language skills.
- Students obtain a dual qualification.

The consortium members of REDEEM have a special interest in joint programs and similar experiences that are in agreement with the general findings about JP (Obst et al. 2011: 6, 29f.). Moreover, joint programs within REDEEM have common characteristics:

- Minimum of 1 semester prolongation of studies in order to obtain a DD.
- High involvement of the partner institutions (choice of partner is important).
- Collaboratively built complementary curricula.
- Min. number of ECTS at the home/partner university ranges from 15 to 60 ECTS.
- JP is much more demanding than a simple Erasmus stay and selection requires a high score.
- The majority of the reported joint programs are offered at the master's level.
- Most of the joint programs are funded publicly.
- Traditional partners are European countries.
- Joint programs are most common in engineering, business, and natural sciences.
- Double degrees are much more common than joint degrees. Most joint programs involve two HEI rather than multiple partners. But there are also large HEI consortia.
- Participation rate in joint programs is rather small (5-25 students per group).
- Main motivations for developing joint programs are to increase internationalization, improve and broaden educational offers and quality, strengthen research collaboration, offer innovative solutions to students and meet the demand of the global labor market, increase visibility and prestige gain for HEI, European identity and citizenship, two diplomas for the price of one, intercultural learning and understanding, added value in academic and political terms.

Main challenges for JP are funding and sustainability as well as accreditation. In the REDEEM consortium, also recruitment, legislative systems, recognitions, tuition and scholarship schemes, mobility balance<sup>2</sup>, accreditation, language requirements, costs, and certification play a role (Knight 2011; Obst et al. 2011: 32f.). REDEEM partners already have vast experience with regard to joint programs and confirm what is generally said: Joint programs are an important component of the universities' internationalization strategies. As joint programs are significantly resource-intensive for a relatively small number of students and complex, clear strategies for joint programs as well as procedures, marketing and recruitment tools, and, most importantly, funding for sustainability are important to further establish joint programs (Obst et al 2011: 39).

There is general confusion about the right terminology, as the terms might have different meanings depending on the country or region. For this reason, we propose common definitions for use by the REDEEM consortium during the project.

**As working definition we should concentrate on the term "Joint Programs (JP)" to concentrate the focus on the joint development of the program rather than the final certification (cf. JOIMAN-JOI.CON). As shown above, the JP within the REDEEM consortium fit most of the characteristics of JP defined by:**

**"JDAZ: Joint Programs from A to Z". A reference guide for practitioners 2015**

**"A Joint Program is a program offered jointly by several higher education institutions. These institutions can be located either in the same country or in different countries (the focus of this guide). A Joint Program does not necessarily lead to a joint degree. It is only one of the possible**

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<sup>2</sup> "The concept of 'balanced' mobility is increasingly discussed, yet hardly any country can claim to have genuinely balanced degree mobility. Even when flows reach similar numbers, the countries of origin/destination differ significantly." (Bologna Process Implementation Report 2015: 23)

awards. After completion of a Joint Program, a graduate may be awarded a single national qualification, a double (or other multiple) qualification, or a joint qualification.”

**REDEEM focuses on international joint programs.**

**REDEEM also adopts the suggested working definitions by Aerden/Lokhoff 2013:**

**Degree:** Any degree, diploma or other certificate issued by a competent authority attesting the successful completion of a higher education program.

**Joint Program:** An integrated curriculum coordinated and offered jointly by different higher education institutions and leading to a (double/multiple or joint) degree.

**Joint degree:** A single document awarded by higher education institutions offering the Joint Program and nationally acknowledged as the recognized award of the Joint Program.

**Multiple degree:** Separate degrees awarded by higher education institutions offering the Joint Program attesting the successful completion of this program.

**Double degree:** Two degrees awarded by higher education institutions offering the Joint Program attesting the successful completion of this program.

→ A double degree is a specific type of multiple degree.

**Dual degree:** Two degrees awarded individually, attesting the successful completion of two separate curricula, with potential overlap and efficiencies in course-taking, and, if more than one institution is involved, each institution is primarily responsible for its own degree.

→ A dual degree is not awarded for a Joint Program.

**Awarding institution:** A higher education institution issuing qualifications, i.e. degrees, diplomas or other certificates. In the case of joint degrees, an awarding institution is one of the two or more institutions involved in conferring the joint degree, thus formally recognizing the achievements of a student enrolled in the Joint Program.

**(Joint Program) consortium:** A group of two or more higher education institutions and potentially other contributors (e.g. research centers) with the objective of integrating teaching and learning activities for providing a Joint Program, although not all participants necessarily award a (joint) degree.

More definitions can be found in Annex I.

The table below shows the general setting of Joint Programs at the REDEEM partner universities.

## Joint Programs JD/DD in the REDEEM Consortium

	KTH	PT	UPC	IST	UCL	TUDa	KIT
<b>Agreements</b>		112	57	51	19	38	26
<b>Min. ECTS</b>		60	60	60			60
<b>In/out balance</b>	In>out	Balanced	In<out	Balanced	In>out for Erasmus Mundus In<out for other JP	In>out	Balanced
<b>Set up of JP</b>	Development of JP is mainly initiated and driven by the departments and the professors. The IRD supports the JP at an administrative level	a) Proposal from Polito professors related to a specific program, with the support of International Relations Office; b) Approval of Vice Rectors for International Affairs and Education; c) Approval of Polito departments involved in the agreement; d) Elaboration of the agreement	Development of JP is mainly initiated and driven by the departments and the professors. The IRD supports the JP at an administrative level		Development of JP is mainly initiated and driven by the departments and the professors. The IRD supports the JP at an administrative level	Development of JP is mainly initiated and driven by the departments and the professors. The IRD supports the JP at an administrative level. Master's contracts on the executive level, with some department/profession-specific annexes	

<b>Management of JP</b>	<p>Management of JP mainly on department level.</p> <p>Administrative support by centralized institutions concerning: Setting up the agreement, accommodation , enrollment, advising of students ...</p>	<p>The management of the program is centralized:</p> <p>a) the International Relations Office manages the agreement</p> <p>b) the Incoming and Outgoing Mobility Offices implement the activities</p>	<p>Decentralized. International Relations (and board of school) at school/faculty level</p>		<p>Decentralized, as the IR is also decentralized. So mainly on the department level</p>	<p>Decentralized selection of the students by the departments.</p> <p>Centralized administration of the exchange and contract management with the partner universities (Unit for International Relations and Mobility)</p> <p>Joint elaboration of new contracts</p>	<p>Management of JP mainly on department level.</p> <p>Administrative support by centralized institutions concerning: Setting up the agreement, accommodation , enrollment, advising of students</p>
<b>Traditional partners</b>	<p>Traditional partners are, of course, in Europe, but also cooperations with other non-European countries</p>	<p>Traditional partners are European universities and Latin American universities. In recent years, Politecnico promoted collaboration with non-EU universities, mainly Chinese.</p>	<p>Europe (CLUSTER), China</p>	<p>Europe CLUSTER T.I.M.E. KIC InnoEnergy</p>	<p>Traditional partners are European (CLUSTER), but also non-European countries</p>	<p>France and USA</p>	<p>Europe</p>

<b>Future plans</b>	<p>KTH management is working on deepening cooperation with selected partners and networks.</p> <p>Work to be more efficient and to have better quality assurance by the university administration for joint programs</p>	<p>a) Simplify the proposal and development process</p> <p>b) Increase the follow-up activities in order to have better quality exchange</p> <p>c) Increase the number of double degree programs in Latin America</p>	<p>30 JP under development.</p> <p>See next internationalization plan</p>	<p>Transfer of all master's courses to English. Allow JP in a wider range of fields.</p> <p>Conversion of MERIT into CLUSTER Dual Master (in progress). To encourage registration in JP by awarding merit-based master's scholarships</p>	<p>Strengthening DD programs within a newly formulated DD university strategy</p>	<p>Strengthen existing partnerships. Develop JP with non-European countries</p>
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## 2 Employability

### 2.1 Definitions of Employability

Employability is one of the main ideas behind a harmonized higher education system in Europe as declared in Paris in 1998 (Sorbonne Declaration 1998). From the very beginning, the Bologna process was linked to the intention “to promote European citizens’ employability and the international competitiveness of the European higher education system” (Bologna Declaration, 1999). The Prague Higher Education Summit focused on “graduate employability” (Prague Communiqué 2001: 2) and the Bucharest Communiqué highlighted the importance of “cooperation between employers, students, and higher education institutions, especially in the development of study programs” in order to augment employability (Bucharest Communiqué 2012: 2). The European Ministerial Conference in Yerevan in 2015 defined employability as a major goal for the European Higher Education Area and underlined the importance of mobility as a means to enlarge competences and career options for graduates. Erasmus+ also pursues the promotion of mobility to enhance personal development and employability (Erasmus + Programme Guide, 2016).

Despite the agreed high importance of the concept “employability,” there is no universally accepted definition. The definitions depend on the context. In Anglo-Saxon countries the term of employability is linked to social-political questions of being able to participate in the labor market. Others define employability in terms of skills. But employability is more complex and should not be defined in such a narrow way.

In the European Higher Education Area, the learning process, the graduate’s achievement and potential to acquire a job are emphasized. Employability is not only about the acquisition of a job, it rather is “[...] the ability to gain initial employment, to maintain employment and to be able to move around within the labor market,” as stated by the [Bologna Follow-up group](#).

According to Yorke (2006: 8), employability involves a complex and continuous process of learning. For him, “employability goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skillful practices and the ability to reflect productively on experience” (Yorke 2006: 13). He underlines the importance of “a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy” (Yorke 2006: 8). Brown et al. (2002) also stress external circumstances.

The students’ point of view is shown by the Student Advancement of Graduates’ Employability project (SAGE). The European Students’ Union has developed the following definition of employability: “Employability is a broad concept which includes subject-specific, methodological, social and individual competences which enable graduates to successfully take up and pursue a profession/employment and empower their life-long learning. Employability is also about making graduates more likely to gain employment in their chosen field(s), being able to create/start new businesses, and being able to develop and succeed in their occupations.” (SAGE 2014: 4).

Consequently, employability designates a set of internal knowledge, skills, competences, and attitudes that have to be maintained, reflected, and redefined according to external factors, such as new environments and requirements in order to find, fulfill, and keep work during working life ([EHEA](#); SAGE 2014; Knight/Yorke: 2006).

The definition given by the Council of the European Union seems to take all items into account: “Employability - that is the combination of factors which enable individuals to progress towards or enter employment, to stay in employment and to progress during their career - is a complex concept, involving not only each individual's characteristics, skills, attitudes and motivation, but also other external factors which lie beyond the scope of education and training policy, such as labour market regulations, demography, the structure of the economy and the overall economic situation (Council of the European Union. 2012a: 10).

### 3 Joint Programs and Employability in the REDEEM Consortium

#### 3.1 First Survey Results

It is widely accepted that international mobility has a positive impact on the development of competences, which leads to better chances on the labor market and more generally to a better employability. Still, employability is an issue which is often addressed, but not yet sufficiently studied, especially when it comes to joint programs (Knight 2011). Due to the juvenility of joint programs and small study groups, very few generations of joint program students have entered the labor market so far. Research on these programs is limited, especially as far as employability is concerned. The consortium members do not have any results from internal studies on double degrees. More general studies about the effects of mobility on skills and employability provide an insight into the topic (EIS 2014; DAAD: 2016). Against the background of the EU's economic crisis, data show that higher education graduates have suffered from the crisis, but still the unemployment rates are the lowest for young people with a high education in most countries (Bologna Implementation Report 2016: 208). It can be assumed that this even more holds for graduates having two national degrees. Although almost all EHEA countries identify employability as a policy concern, the tools and efforts change from country to country. HEI have great autonomy and an important role to play: Including work placements in the curriculum (preferably abroad), improving career guidance services, monitoring performance with established feedback mechanisms, but also encouraging student mobility or the implementation of Bologna tools (Bologna Implementation Report 2015: 208).

Most of the national and international studies use a mix of quantitative and qualitative methods and define employability by a set of skills and competences. It is striking that there is no consensus on the description of these skills. Apart from empirical factors, the **Erasmus Impact Study 2014** used the six memo© factors developed by CHE Consult: Acceptance of other people's culture and attitudes and adaptability, openness to new experiences, trust in own competence, awareness of own strengths and weaknesses, ability to make decisions and ability to solve problems. These characteristics of personality traits which are most closely related to employability are used to measure real developments in the skills of students after an international experience (DAAD 2016: 38; EIS 2014: 68).

Empirical, perceptual, and attitudinal items were combined to explore the effects of Erasmus mobility and intensive programs (IP) by EIS. It focused on the effects of different types of mobility on the development of individual competences and skills of students (which have an impact on employability). One of the most important findings is employer's importance attached to international experience with regard to employability. In comparison to 2006 where only 37% of the employers included in the study considered international experience important for employability, 61% of the employers did so in 2014 (EIS 2014: 136). Employers and alumni confirmed the memo © factors as relevant to employability. More than half of the students (51-52%) who had experienced Erasmus mobility activities (study, work

placement, and IP) increased their memo© values. In addition, the findings of the qualitative study strongly supported the quantitative findings: Students had better soft skills and could also develop their professional skills. Complete immersion and work placements seem to be most effective for the development of skills (EIS 2014: 138). The Erasmus Impact Study also revealed that employers value graduates with international experience and assign them greater responsibilities as well as tasks of international character. Mobility proved to have a positive influence on employment, especially for graduates from Southern Europe, and also on salary. EIS also pointed out long-term employability due to mobility experience (EIS 2014: 140).<sup>3</sup>

The most recent study in Germany was ordered by the **German Academic Exchange Service (DAAD)** and conducted by the **Cologne Institute for Economic Research (2016)**. Based on a quantitative survey of 1,008 HR managers from all sectors and company sizes and six qualitative in-depth interviews with employers, the study explored the acceptance of graduates with study-related international experience on the German labor market.<sup>4</sup> The key findings of the study show that in the process of globalization, international activities are crucial to a company's success. Employers estimate that graduates with international experience perform better in general and are more qualified for international tasks, such as the use of foreign languages, international contacts, and work in international teams. Although employers pay most attention to technical knowledge, social skills, and personal attitudes, the international experience can make a difference in the recruitment process (DAAD 2016: 52, 69, 101). Employers see international experience as an important way for personal development in general and intercultural competence in particular, which becomes increasingly important to a company's success (ex: productivity of international teams). Moreover, employers have a preference for international sojourns from three to six months that integrate work experiences and allow contacts to the culture and social relationships. Employers also stress the fact that HEI need to support students in the reflection process of their international experience so that the student is able to value his/her experience and "sell" the mobility experience appropriately to the employer (DAAD 2016: ). The DAAD survey shows that international mobility can be a "plus" in the recruitment process, but does not necessarily need to have a positive impact on income or career. Micro- and macroeconomic factors have more weight. It is concluded that international mobility contributes to long- term employability. Still, the study underlines that international mobility is important and especially internationally active companies search for international profiles (DAAD 2016: 134).

As international activities become increasingly important to companies, JP students should be their perfect target group for jobs of international orientation. In comparison to the above-mentioned Erasmus mobility students, JP students experience study periods with integrated working placement, contact to the country's culture and other local and international students. This immersion is associated with an even greater impact of their JP mobility on employability (DAAD 2016: 112). Moreover JP's are based on solid partnerships and offer good structures, sometimes even preparation and reflection seminars which help the students value their experience (DAAD 2016: 126). Important to note for joint program alumni is that employers accept an extension of studies which often is the case for joint programs due to different academic calendars and a challenging curriculum (DAAD 2016: 109). **The rather "neutral" position of employers with regard to JP in the DAAD survey shows that joint programs are not very well known to employers and that there is need to improve the marketing of JP's (DAAD 2016: 121, 125).** It is evident that international mobility can facilitate the entry on the labor

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<sup>3</sup> Interesting to note is that graduates mentioned a greater European identity – "being Erasmus" (EIS 2014: 138).

<sup>4</sup> The focus of the study was the employer's perspective in 2015.

market, but it cannot outweigh formal selection criteria, such as technical knowledge, cognitive skills, social competence, personal attitude, and practical experience. There is still a long way to go for JP's to obtain more recognition from the employers and to reveal their quality with regard to academic, intercultural, and practical education.

Two surveys have focused on JP so far: The **German-French University's employability study (2014)** and **IW consult for DAAD study in 2003**.

The **German-French University's employability study (2014)** is an example of one of the few regularly conducted surveys on students who passed a joint program. The survey (2014) addressing the alumni of German-French double-degree programs revealed very positive results. 60% of the participants considered the double degree an advantage in finding a job. Particularly engineering students reached a high satisfaction rate. 70% of the alumni needed less than 3 months to find an adequate job. More than two thirds of those working in an international environment estimated that the double degree had a positive impact on their professional mobility. "Only" 38% agreed that a double degree improved their career options. 90% would recommend their double degree, which is extremely high and a positive feedback for the German-French double degrees (DFH 2014).

The **IW consult for DAAD study (2003)** showed that 50% of the employers recognized double degrees and found them attractive. Business and engineering double degrees were in high demand. Employers recognized the intercultural experience and language skills gained through international mobility. For 60%, a double degree made a difference concerning hiring and especially language skills were deemed important, because they are needed for working abroad.

### 3.2 Interest of the Project

The Bologna process was meant to strengthen the competitiveness and attractiveness of European higher education and to foster student mobility and employability through easily readable programs and degrees. Throughout the Bologna process, its agenda was broadened and topics, such as quality assurance, employability, industry-academia partnerships, lifelong learning, student-centered learning, international openness, mobility, education, research & innovation, as well as data collection, funding of HE,... were introduced (Bergen Communiqué 2005, Leuven/Louvain-la-Neuve Communiqué 2009). With the official launch of EHEA in 2010, the initial topics of the Bologna process were given a new quality: Besides the consolidation of the Bologna process, the Bucharest Ministerial Conference (2012) clearly identified higher education as a "help to get Europe back on track and generate sustainable growth and jobs" (<http://www.ehea.info/pid34248/history.html>). In view of the economic crisis, the Ministers agreed to focus on three main goals: Providing higher-quality education to more students, better equipping students with employable skills, and increasing student mobility. The Bucharest Conference defined two important objectives according to the present thematic: "**Employability** and personal and professional development of graduates throughout their careers by improving cooperation between employers, students, and higher education institutions, especially in the development of study programs that help increase the innovation, entrepreneurial, and research potential of graduates" (Bucharest Communiqué 2012: 2) and the further development of **joint programs and degrees** as part of a wider EHEA approach. To reach these goals, national rules and practices relating to joint programs and degrees will be examined as a way to dismantle obstacles to cooperation and mobility embedded in national contexts (Bucharest Communiqué 2012: 4).

It was clear to all stakeholders that Europe needs to create jobs and prosperity and HEI with their key tasks of education, research, and innovation were identified to be crucial actors in producing economic

growth by providing the highly qualified people Europe needs. But as the employability of graduates cannot be increased without a dialog between employers and higher education, the European Union, through its Modernisation Agenda (2011), fostered cooperation between HEI and business to continuously shape and develop study programs in order to meet the students' and the labor market's demands.<sup>5</sup>

**International mobility as a means to enhance employability of graduates also is the main topic of the Reforming Dual Degree Programs for Employability and Enhanced Academic Cooperation (REDEEM) project.**

The impact of international mobility experience on the graduates' skills and competences is not doubted. Transversal skills cherished by employers besides technical knowledge in the respective discipline and work experience are gained during mobility periods abroad. Recent studies (DAAD 2016) show that employers consider international experience an important way to develop personally in general and to acquire intercultural competence in particular. Moreover, international experience can make the difference in the recruitment process, as employers think that graduates having international experience perform better in general and are more qualified for international tasks. **As employers have a preference for international sojourns from three to six months with integrated work experiences, contacts to the culture, and social relationships the focus on the link between Joint Programs, as a special form of international student mobility, and employability of graduates becomes interesting. But although the recent Erasmus Impact Study (2014: 14) shows that 64% of employers consider an international experience important for recruitment, most of the stakeholders also underline the importance of the quality of mobility (DAAD 2016). Given the fact that JP's offer a long-term stay in a foreign country that often combines a study experience with a work placement, it is also more likely that students increasingly meet other local and international students and familiarize with the country's culture. Moreover, well-framed JP's are based on strong institutional and personal partnership so that students are more likely to have a high-quality international experience. It can well be assumed that international experience through a JP has more impact on the employability of graduates than conventional Erasmus+ mobility.**

The REDEEM universities that are members of the CLUSTER network, which regroups leading universities in the field of sciences and technology, all have a substantial experience with JP and are keen on examining their impact. They consider the quality of their JP central to maintain a competitive advantage in the global education market, as students look for international competency offered by joint programs in order to fit best into the global labor market (Faethe, Brenn-White 2013).

Similar to other impact studies of mobility, the REDEEM project quantitatively analyzes empirical data and perceptions of mobility effects on students of all REDEEM partner universities, who have attended JP. The results of the quantitative analysis will then provide the basis for the qualitative approach which will consist in focus group meetings with all stakeholders from the REDEEM countries. During these focus group meetings, the perceptions and needs of employers concerning the JP curriculum, students, and their skills as well as employability will be explored. Moreover academics and alumni will be interviewed as well. **The innovative character of REDEEM results from its focus on JP in six different countries.** Within the project, the impact of joint programs (the term includes all possible variants

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<sup>5</sup> Moreover, the knowledge triangle of education, research, and innovation is at stake in order to improve the continuum between basic and applied research and transfer knowledge to the market (Modernisation Agenda of Europe's higher education systems 2011: 18).

according to the definition used here) in science and technology will be studied from the point of view of the main actors: Academics, students, and employers in all participating countries.

**Does a joint program matter? Do students with two diplomas have better employability chances? Do JP students have better employability chances than non-mobile students?**

Finally, this approach will also give information about the academic validity of JP. This information will be incorporated in guidelines to improve the JP at the REDEEM partner universities and to make them more suitable for students and adjust them to the employer's needs.

### 3.3 Implementation and Constraints

The table below shows the different contact strategies of the REDEEM partners in the alumni survey.

#### 3.3.1 Alumni Contact Strategy

Response rate 30%	KTH	PT	UPC	IST	UCL	TUDa	KIT
<b>Management of alumni relation</b>	Alumni relation office	ALUMNI POLITO is an external non-profit association, 11000 members, agreement with Polito concerning collaboration on networking with former students (annual meeting), scholarships, training for the practical architectural professional examination, cultural activities	Schools/faculties UPC Unit: "UPC Alumni"	Alumni organization that collects and manages alumni data. Employability observatory (OEIST) asks alumni after 12-18 months, 5 and 10 years. Transfer and Technology Office (TT) organizes activities with alumni	Alumni Association : <a href="http://www.ailouvain.be/page/homepage">http://www.ailouvain.be/page/homepage</a>	TU Darmstadt Alumni Network (www.tu-darmstadt.de/alumni)	Alumni network. Alumni networks of French partners
<b>Available data</b>	Alumni data-base	ALMALAUREA: Consortium of Italian universities: <b>Yearly report on graduates' employment</b>	UPC Alumni From the application that manages registrations, transcripts, etc.	OEIST survey results available (no specific feedback on JP, but some JP are included in the survey)	Approximately 8,000 alumni records go back beyond the mid-1990s when DD were introduced	Students' reports MoveOn database TU Darmstadt Alumni Survey	German-French JP, study of German-French University, REDEEM questions were integrated into

<b>Contact procedure</b>	<b>situation</b> No specific analysis on, but possibility to improve and deepen the report.						KIT graduate survey 2016. Main challenge is to reach a sufficient proportion of alumni for statistical validity
	Email, phone	Newsletter, FB page, direct mailing and website <a href="https://www.alumni.polito.it">https://www.alumni.polito.it</a> , online surveys + phone interviews + g+, twitter, linkedin	Email, search on the internet, through social networks, filter form all alumni	Email, internal online survey platform LIMESURVEY installed	Email and phone	Email and phone	Email, JP question was included into general alumni survey
<b>Response rate</b>	80%	Low	40-50%	30%			
<b>Alumni records</b>	Few activities concerning employability. No specific focus on DD.		250				

## 4 Conclusion and Outlook

National and international studies made over the past years show that a key profile consisting of cognitive, communicational, social, and personal competences as well as technical know-how prevails in the recruitment process. Moreover, practical experience of the student plays an important role in the recruitment procedure. Although international experience is highly valued by employers and gaining importance with increasing internationalization of the economy, it does not substitute the key profile or practical experience. International mobility experiences rather are a factor of long-term employability and enable international working fields and access to special trainee programs, as employers think that they have positive effects on personal competences and development. Moreover, employers underline that the stay abroad has to enable close contact with people and the country's culture in order to unfold positive effects on the personal development. According to employers, however, students are not able to positively present their experience.

**The discrepancy between the perception of employers and the reality of joint programs is striking. Joint programs enable studies and (mostly) also internships abroad in a well-structured context, which means that the length and quality of the stays differ very much from those of conventional Erasmus programs. Hence, JP's offer the close relations to the country and people that is required by employers. However, communication must have failed, as employers are not aware of JP. HEI have to outline the benefits of this high-quality mobility program to employers. International offices and career services have to be integrated into the preparation and reflection of JP (DAAD 2016: 143ff.).**

Even if higher education institutions are seen as crucial partners in realizing the European Union's strategy to maintain economic growth and achieve prosperity by developing highly qualified European citizens for a globalized and complex labor market, there are hardly any empirical studies and data on the impact of mobility (EIS 2014: 21).

By analyzing the perspectives of students and employers, REDEEM wants to complement already existing studies of mobility effects on employability of young graduates. In particular, REDEEM focuses on the impact of joint programs of leading universities in science and technology. We expect this analysis to confirm the findings of earlier studies, according to which students with international experience are more likely to work in international companies and execute activities of international character, such as using foreign languages, handling international contacts, and working in internationally mixed teams. Although literature on the mobility's impact on job opportunities and income is limited, we expect the joint program experience to be a boost for the first job and the income level (EIS 2014: 140). It will be interesting to compare the impacts of different mobility programs and see whether joint programs have a higher impact on employability than conventional mobility programs. Such a study might be made at regular intervals in order to maintain the quality of joint programs and improve their implementation in accordance with the development of the international labor market. Determination of the impact of JP on employability, personal development, attitudes, and life pattern will provide useful information to reform, enhance, and promote JP within the EHEA. A set of recommendations of how to improve existing JP and how program directors can create new effective and attractive programs for both students and employers will be derived. Moreover, the output will be used as an information and marketing tool to increase the number of JP students.

**Having launched this project, the REDEEM universities as Europe's leading higher education institutions in science and technology accept the challenge and want to contribute to achieving smart, sustainable, and inclusive growth through knowledge.**

## ANNEX I

### Bologna Implementation Process Report 2012

“One of the products of the intergovernmental Bologna Process, the 2012 Implementation Report (p.185), indicates that Joint Programs have all or at least some of the following characteristics:

The programmes are jointly developed and/or approved by several institutions;

Students from each participating institution study parts of the programme at other institutions;

The students' stays at the participating institutions are of comparable length;

Periods of study and exams passed at the partner institution(s) are fully and automatically recognised;

Professors of each participating institution also teach at the other institutions, jointly work out the curriculum, and form joint admission and examination commissions;

After completion of the full programme, the student either obtains the national degrees of each participating institution or a degree awarded jointly by them“

### JOIMAN Glossary

#### Joint Program

“A study programme developed and/or provided jointly by two or more higher education institutions, possibly also in cooperation with other institutions (*Tuning glossary*), leading to the award of a double, multiple or joint degree.

#### Degree

“A formal qualification awarded by a higher education institution after successful completion of a prescribed study programme. In a credit accumulation system the programme is completed through the accumulation of a specified number of credits awarded for the achievement of a specific set of learning outcomes.” *Tuning glossary*

#### Diploma

A degree certificate i.e. a document certifying the successful completion of a programme of study.

#### Double degree

“A double degree is TWO or more degrees given by two or more higher education institutions for the same study programme, in one way or another separately developed by and implemented in every participating higher education institution.” *ESU definition*  
(<http://www.esib.org/index.php/issues/Academic%20Issues/89-joint-degrees>)

#### Joint Degree

“A joint degree should be understood as referring to a higher education qualification issued jointly by two or more higher education institutions on the basis of a joint study programme.

A joint degree may be issued as

- a joint diploma in addition to one or more national diplomas,
- a joint diploma issued by the institutions offering the study programme in question without being accompanied by any national diploma,
- one or more national diplomas issued officially as the only attestation of the joint qualification in question.” *Bergen Glossary* (<http://www.bologna-bergen2005.no>)

“A joint degree is one degree given by two or more higher education institutions together, for one study programme jointly developed and implemented by all participating higher education institutions. “ *ESU definition*. (<http://www.esib.org/index.php/issues/Academic%20Issues/89-jointdegrees>)

**ANNEX II**

**List of all JP of the REDEEM Consortium (cf. excel table)**

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