



TÉCNICO LISBOA



UNIVERSITAT POLITÈCNICA
DE CATALUNYA



POLITECNICO
DI TORINO



FOLLOW

PROMOTION AND FOLLOW-UP OF GRADUATE EMPLOYABILITY IN EUROPEAN HEIS

FINAL REPORT

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EXECUTIVE SUMMARY

The FOLLOW project is the joint effort of 4 cluster universities with the main goal of identifying and disseminating the best and most effective practices concerning the monitoring and promotion of HE graduates employability and channeling them into objective and effective improvements on the local and European policies that deal with this subject.

The FOLLOW project originated from IST Portugal, one of the first HEI in Portugal to steer resources to address the issues of employability of its graduates and to be aware of the importance of these matters in the strategic management of HEI.

Combining the input of all partners in this embryonic idea, the consortium managed to produce a structured and objective work team oriented, not to replicate statistics, the obvious or the subjective, but to create something which can work as resource to all stakeholders involved, directly or indirectly with HE Graduates employability.

Why is FOLLOW needed?

The employability issue plays a key role in the strategic management of the HEI. The most recent evolution of these institutions is marked by a growing concern with structures that approach the labour market, alongside the main activities of higher education: Teaching, R&D and technology transfer and Knowledge dissemination. Universities are concerned not only with their students but also with the professional environment they are going to face. Nowadays, this situation is reflected by the fact that one of the key indicators in the accreditation processes of higher education is the employability of their study cycles.

Under a societal point of view, the FOLLOW project is a very important initiative since it is consistent with the orientation of several intertwined European Union policies. In particular, it aims to contribute to better and proper connect the highly specialized workforce produced by HEI with the labour market, considering the needs of both parties and also to provide detailed and updated insight of how this connection is evolving.

It is also important to point out other factors that enhance the decisive role the field of employability:

- The increase in the unemployment rate among young graduates (for example, the generation in Portugal coined “*geração à rasca*”, or “*in a tight-spot generation*”);
- The budgetary constraints in European countries have put obstacles to employability support strategies and labour supply itself
- The potential of growth of some areas that are closer associated with cutting-edge technological sectors, notably in North European countries;
- The increasingly broader gap between specialized supply of human resources and the demands of the business sector in terms of qualified jobs
- The reformulation of skills required by the labour market and its consequences in structuring the HEIs’ curricula;
- The increasing importance that governments attach to this dimension, by spreading support programmes and professional internships, which sometimes, do not have the required continuity in terms of the “real” professional integration;

- The dimension of effective payment offered by the companies and the fair price to be paid to the newly graduates *vis-à-vis* the economic and social value of a University Diploma;
- The influence of strategic management of HEIs in (re)defining policies that support professional integration and promote employability;
- The support of European policies in terms of employability of graduates in Higher Education.

To sum up, the importance of this project, which gathers together the best graduate employability practices in HEIs, is decisive to build up a European area that privileges the adoption of a more-oriented and adequate path between the educational offer by the HEIs and by employers.

What are the main goals?

In a nutshell one can say that FOLLOW project chiefly aims at knowing what is successfully being done and extrapolating that success to a more widespread area of action. The general and specific objectives of FOLLOW are pointed to the accurate observation and assessment of the employability mechanisms in each partner's organization, deriving the good practices from the collected data, to be analyzed, shared and promoted. This focus will deploy knowledge update benefiting each partner and all stakeholders across Europe, once the available data allows for an unprecedented comparison, a general description of the existing employability mechanisms, their location, their features and performance. This mapping of the available employability mechanisms will benefit other HEI and provide a well-informed basis to draw future Higher Education Policies. The first output of FOLLOW will also be useful to graduates searching for support, to the recruiting companies and to other employability interface institutions, which are vitally interested in this information on the precise employability network dots, easing communication, timely contacts and sense of interlocution.

To be more precise, the main goals are:

- To organize the "First International Seminar on Higher Education Graduates Employability"
- To create a network of knowledge and experiences in terms of interventional structures in the field of employability and to foster cooperation between HEI's. This network is also aimed to fill the absence of a central formal structure at European level which exclusively deals with the policies and management of graduate employability in higher education. The exchange of information and experience aims for the whole process of analysis of employability and standardization of the indicators for subsequent comparative analysis
- To produce a final report with the Best Practices on Monitoring and Promoting HE Graduates employability based on the different realities and different lines of action in terms of strategic management in each FOLLOW Project participating institution
- To keep a constant flow of information circulating through preliminary reports, brochures, Twitter and Facebook Accounts, Official Website
- To lay the foundations for an European Observatory of HE Graduate employability
- To create a network of actual cooperation initiatives among the partners such as the joint organization of Job Fairs, the exchange of work methodologies, joint projects aimed at specific issues, among others

Currently, the actions dealing with graduate employability are of a more descriptive rather than interventional nature. Surveys are periodically conducted and monitored, which do not directly, effectively and efficiently lead to practical actions. To do so, the information collected should be

channeled to policies that have proven adequate at the levels of action on employability, this being another goal of the FOLLOW project, both at an institutional level (HEI, Companies, etc.) and at national government level.

The practical measures on employability, both at European and local levels, should be oriented depending on the performance of each partner in relation to a set of indicators on graduate employability. This involves the creation of a system of references at European level, which define and differentiate higher risk situations. Should there be consensus between the partners involved in the project, our ambition is to create an alert system at European level applied to decision-making, which enhances and improves effectively the performance of HEIs in terms of graduate employability

The project aims at benefiting mainly higher education institutions, employability analysis networks, national work groups and professional associations/orders. However, our expectation concerning the final outcomes of the project will be the direct or indirect influence and support to the national employment policies in Europe and, particularly, in each member country.

The final outputs of FOLLOW will add to the EM (Employability Mechanisms) mapping and basic indicators of performance, a thorough assessment of the history, changes and orientations followed in each case, accordingly to the EU general policies and its adaptation at the level of each partner organization. These final outputs will entail contributions from all stakeholders (graduate students, company managers and EM coordinators), giving a developed sketch explaining the best results, the good practices and an innovative framework of classification and analysis.

HOW IS FOLLOW ORGANIZED?

The FOLLOW project is organized in 4 main Work Packages:

WP1 (KUL Coordination): This WP addresses the information collection and organization. The goal is to have as much information as possible on the different situations and backgrounds of each partner in terms of employability practices. This is of the utmost importance to define the best practices in each partner in order to present them in an organized and structured manner in the international conference and in the final FOLLOW Report. This WP is crucial to lay strong, dynamic and steady foundations to support the other stages of this project.

WP2 (IST Coordination): Lisbon "First International Conference on Higher Education Graduates Employability". In this conference the FOLLOW project has its major visibility and cooperation with internal and external actors. Aside from the presentation of the preliminary report of the WP1 works, the conference revolves around 3 main topics:

- Managing employability at HE Institutions – An approach to employability from the point of view of the HE Institutions
- Through the eyes of the employers – The perspective from the ones who have the need and capacity to absorb the skilled work force produced by the HEI.
- The role of the publicly-owned and non-corporate institutions – What is the role of state or institutions such as professional orders in the development and improvement of HE graduates employability

WP3 (UPC Coordination): Dissemination and Promotion. The first stage of this WP is to disseminate the materials produced and structured in WP1 (Preliminary results, Website, Blog, etc.) and to carry out the creative design process of all produced materials.

WP4 (IST Coordination): Administrative and organizing issues. It will be IST responsibility to manage the timeline, to schedule meetings, video-calls, conference calls and all other ways of contact, to manage reimbursements and to coordinate the actions of the overall project.

MAIN RESULTS

Divided into 2 main data collection and analysis, the FOLLOW project produced conclusions in the scope of WP1 and WP2.

WP1 – Employability Promotion and Monitoring Practices & Structures

It can be argued that most internal agents of the FOLLOW partners engage in multiple practices or multiple areas of intervention. Instead, most external agents concentrate on one particular area of intervention – sometimes overlapping with the interventions of the internal performing agents.. The type of practices most frequently employed is concerned with promotion rather than monitoring. The most common areas in the field of promotion are:

1. Recruitment opportunities: job search by students and/or dissemination of job offers;
2. Professional and career guidance activities including skills and education match;
3. Specific company collaborations.

At least one internal agent of each participating higher education institution has developed activities in these areas of intervention. The practices of these agents in these areas are also very similar. For instance, the career sessions of IST are comparable to the job training services provided by the KU Leuven Study Advice service, the career counseling offered by Politecnico di Torino and the orientation programs and seminars offered by UPC Alumni.

No matter how positive the performance of these kinds of actions and structures is, the need to evolve, adapt and get better is always present in order to be able to face the challenges of a fast evolving society in general and labor markets in particular. A set of these challenges and less positive aspects were identified:

- Lack of structured and organized information about graduate employability
- Dispersion of information and irregular periodicity of surveys
- Difficulty creating time series and longitudinal analysis
- Increased number of students, bringing new responsibilities
- Issue of equal access to and participation in higher education for all students
- Tradition of providing tutoring services for incoming and first year students
- Lack of internal structure providing job placement and career development services
- Implementation of a new structure and service without losing continuity
- Lack of direct link with university and institutions and companies outside university
- Dispersion of information
- Poor communication towards students
- Lack of efficiency and efficacy concerning human and economic resources

The ability to identify challenges and less positive aspects is complemented with a set of planned actions or strategic axis for the future development of employability addressing at each partner:

- Organize available human resources with knowhow and skills on the subject and formalize a structure dedicated exclusively to employment issues
- Creation of new professionalized services to manage new responsibilities, such as a vocational guidance service
- Offer (im)material support and help students eliminate financial constraints, for instance through student employment
- Offer special attention to specific target groups such as impecunious students, international students, students with disabilities, etc.
- Creation of a new service guiding students during their entire graduate career, until their transition from education to the labor market
- Taking a different approach for future and incoming students (individual) and actual and graduating students (individual and collective)
- Creation of a student association unit focused on business relations, being the only responsible actor in this matter
- Incorporation of the knowhow and experience of the staff of a former association in a new integrated structure offering a similar service
- Participation of the director and president of UPC Alumni in the management bodies of the university, also providing the link with companies
- Create a central office/structure to improve communication and to make the best possible use of the available human and economic resources

WP2 – 1st International Conference on Graduate Employability

The main goal of WP2 was achieved even before the main deliverable was executed. The 1st International Conference on Graduate Employability managed to reunite all kinds of knowledge and experience in 2 days of intense debate, conversation and presentation of objective practices. The simple fact that all relevant stakeholders were represented by people who, due to the position they have or due to their work, have extremely relevant insight about the employability issue. From Faculty Deans to some high profiled companies CEO's going through research specialists, members of the Portuguese Government and former ministers. The main output was to identify the main discussion axis and concerns that are present within these stakeholders and how they address them. The most interesting aspect is that the variety of concerns is not that big and most stakeholders share the same concerns, even if they are on opposite ends of the discussion on issues such as the role of the graduate in terms of responsibility in being employed, for instance. While most employers stress out that the graduate needs to develop such intrinsic traits in order to be employable, University professors and Deans point out that the economic activity must grow through investment and innovation in order to produce more jobs. The first focus places the employability responsibility on the graduate while the second places it on the market.

The main topics/issues identified and raised at the conference were:

Softskills vs. Hard skills debate: How to ensure that the courses provide the skills demanded by the employers. Whose responsibility is to train extracurricular activities? Are the so called "Softskills" able to be learnt in an exclusive university context or it needs labor context?

Influence of the present Conjuncture: The role of innovation and technology in reshaping the labor market and how does it relate to the internationalization of the labor market and consequently influence the choices and opportunities of HE graduates. How to increase competitiveness and to manage the production and conception strategies. How to rethink the structure of the needed human resources in terms of who develops and the who actually executes.

Structural situation: How do demographic and economic changes can restructure labor market and make areas such as social services gain more significance. Will the current crisis have structural impact on the employability of graduates?

Social Value of Higher Education: What is the difference between graduate and non-graduate employment? What is the gap and is it still worth for a candidate to enroll in a course and spend 3, 5 or more years studying and will it give him better arguments to face the labor market? Did the bologna process accelerate the entry of graduates into the labor market?

Pedagogic and Scientific autonomy: How far can the external influence go over the internal strategies and policies concerning HEI own management in terms of employability? How to manage the need to create, maintain and highlight knowledge in all scientific areas in a highly unbalanced labor market? Should knowledge be restrained by the laws of the market or should it be the other way around?

Promotion of Employability: Who has the main responsibility in developing structures that can promote employability? How can companies and universities act in order to bring together their interests and needs in a balanced way?

Employability – Concepts & Monitoring: The concept itself might raise some confusion due to its multiple usages. In this sort of debate there is the need to clarify what the concepts are addressing to. Also in terms of statistics and information how can one produce and homogenize methodologies and therefore create comparative data.

It is important to percept the FOLLOW Project as a dynamic structure oriented for the implementation of active and objective actions. This is one of the main differentiating characteristics of this project; it is not only a descriptive project but also an intervening one. By making a conference one of its main deliverables the project managed to contribute for the highlight of a particular debate which is usually dissolved in the overall employability debates. One cannot address the employability of HE graduates with the same strategies and policies that are used to non-qualified human resources, the social and economic impact is quite different.

Also the FOLLOW 2 Project is already submitted for EU approval and its development was possible due to the experience achieved with FOLLOW 1 and also due to the dynamic cooperative network created by the 4 partners which allows a constant flow of information and experience exchange. This first stage of the project was the setting of this structure and the development of a cooperative methodology to support such structure which will be used and enhanced in FOLLOW 2.

On a final note, the project and its network of contacts (both within and outside the consortium) made possible the development of the "Journal of Graduate Employability" whose nº 0 will be published in mid-march and is intended to produce relevant contributions for the future debate.



BACKGROUND INFORMATION

Partners Country Profile

HIGHER EDUCATION SYSTEM OVERVIEW

Higher education in Europe suffered in recent years the influence of the Bologna Process that has in main goal to harmonize the different systems in European countries and promote a easier and better mobility and equality – a common higher education space.

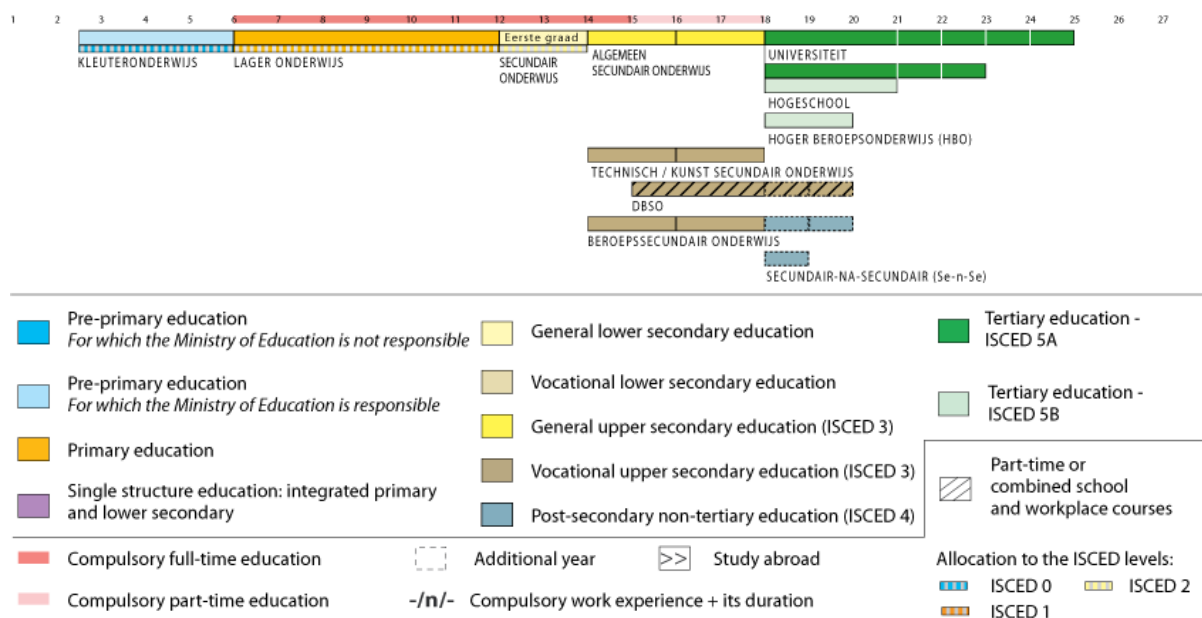
The need of this common higher education space in Europe didn't harmonized the education systems in a overall perspective, some particular areas related to the programmes were harmonized and a credit system that could lead to comparable learning outcomes were created.

The differences are still present and the different countries relate to the students access, enrolment and connection to the labor market in a very distinct way that results in different ways of doing the same things.

The higher education system is organized in general in two sub university systems, of university schools (briefer learning spectrum – ISCED 5B) and universities (broader learning spectrum – ISCED 5A +), and is organized for project partner countries as follow:

Belgium /Flemish

In Belgium the higher education has a maximum of 3 to 7 years in the universities and 3 years in the university colleges (Hogeschool).

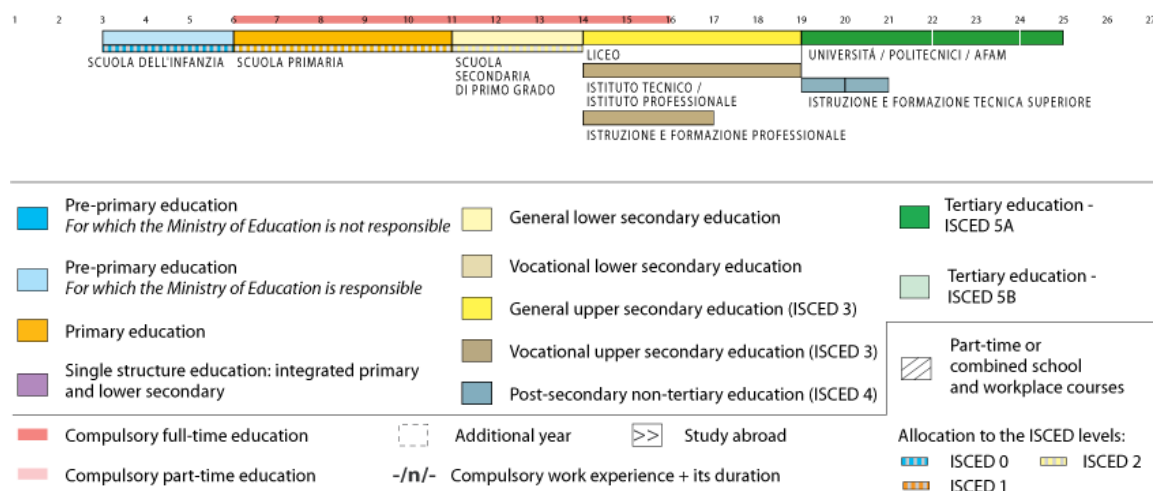


The access to the higher education, bachelor, master or PhD, is based on the fulfillment of some requirements, there are some exceptions for admission to Medicine and Dentistry and higher artistic education. Most institutions need language exams. For some individual access without obeying the needed requirements, the institutions can open some exception, those decisions must be based on humanitarian grounds, medical, psychological or social grounds and the individual education level of the student.

The main requirements for accessing a bachelor program a student must have a least a secondary or equivalent degree and for accessing a master program a student must have fulfilled at least a bachelor level degree.

Italy

In Italy the university system offers a more unified spectrum, as we can see in the next figure.

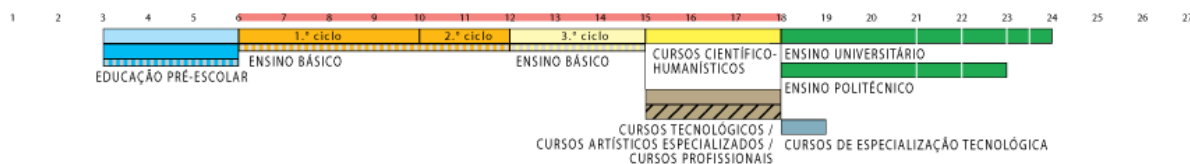


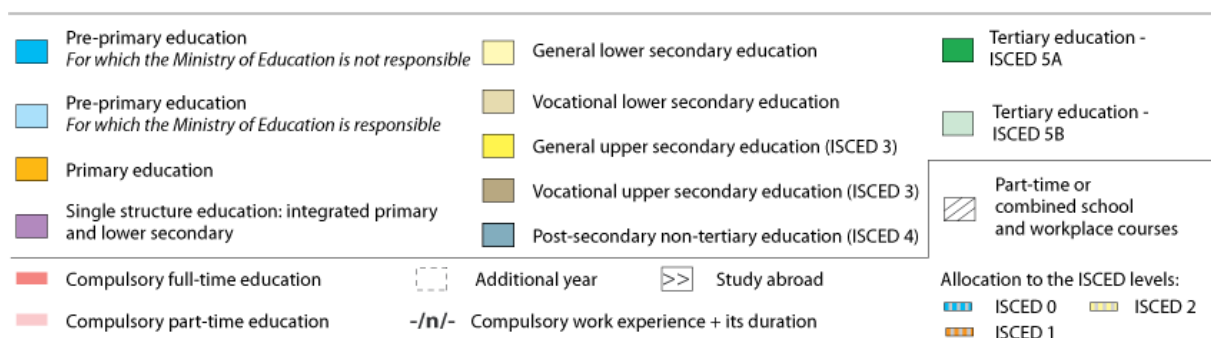
The Italian higher education system is organized as tertiary education offered by universities, by the High level Arts and Music Education and higher technical education offered by the higher technical institutes. The courses offered by the universities and High level arts and music are qualifications of level ISCED 5 and 6.

The access to higher education requirements are the minimum educational requirements and have a good competence in Italian. The competence in Italian in some institutions substituted by good English competences.

Portugal

Portugal is divided in two systems, both offer Licenciaturas (ISCED 5A), but the Ensino Politécnico is more vocational oriented and can't offer PhD degrees.

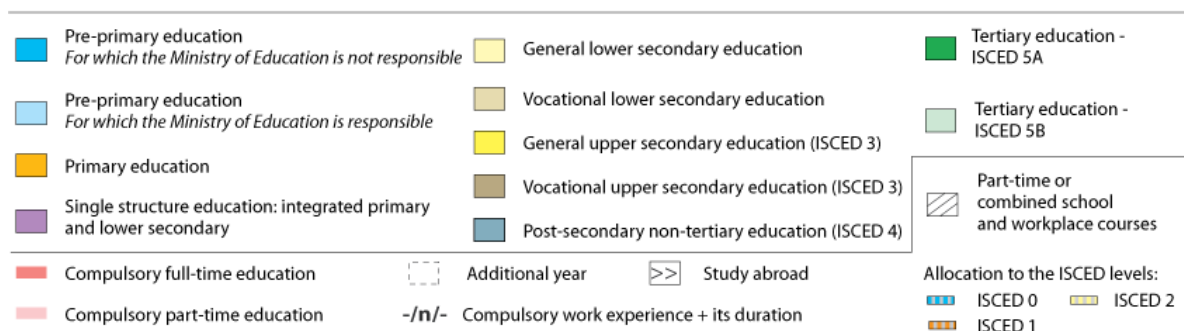
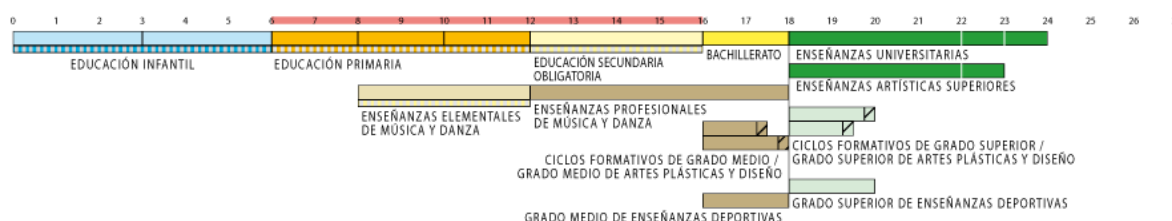




The access to higher education is possible to all that have a Secondary education or similar degree. Persons with more than 23 with non-secondary education degree can apply in a special regime to the university system.

Spain

The Spanish Higher Education system includes university and professional studies. The higher education in the institutions that provide the ISCED 5A, Universities and Artistic Higher Education Schools, with 5 to 7 years degrees, equivalent to the obtaining of Bachelor, Master and Doctorate Degrees; and institutions that provide ISCED 5B degrees, Advanced Vocational Training, with maximum 3 years degrees.



The access to the Spanish higher education system the candidate must have at least a secondary degree to access the first cycle studies. Relevant knowledge in English and Spanish are often demanded and in some cases other qualifying courses are requested.

STATISTICAL OVERVIEW

Higher education degrees are differently spread across the different countries, in European average for 2011 was 23.6 (EU27), 24.2 (EU25) and 25.0 (EU15). For the countries in analysis Belgium and Spain are above the European average, as you can see in the next figure.

	2009	2010	2011
Belgium	29,4	30,7	30,4
Italy	12,8	13,0	13,1
Portugal	13,1	13,8	15,6
Spain	27,1	28,1	29,0

Figure 1 - Population 15-64 with higher degree (% , src: Eurostat)

Italy has the lowest slice of population with higher education degrees, and that reality is steady throw the last years, in Portugal we verify a growth in 2011.

When looking at the employees with higher education degrees the tendency is the same as stated above, were Belgium and Spain have almost 40% of their employees with a higher education degree.

	2009	2010	2011
Belgium	39.2	40.3	40.1
Italy	16.7	17.0	17.2
Portugal	18.1	19.0	20.9
Spain	36.8	38.2	39.4

Figure 2 - Employees with higher degree (% , src: Eurostat)

Looking at the unemployment rates, Spain has the highest opposing Belgium with the lowest unemployment rate among the persons with a higher degree. In Portugal the unemployment rate in this population had the biggest growth in the 3 years analysis. Italy and Belgium presented a decrease.

	2009	2010	2011
Belgium	4.5	4.5	3.8
Italy	5.6	5.8	5.5
Portugal	6.5	7.2	9.3
Spain	9.8	11.3	12.7

Figure 3 - Unemployment rate in workers with higher education degree (% , src: Eurostat)

Looking at the following illustration we can state the differences between the four countries concerning this issues related to the higher degree and the labor market.

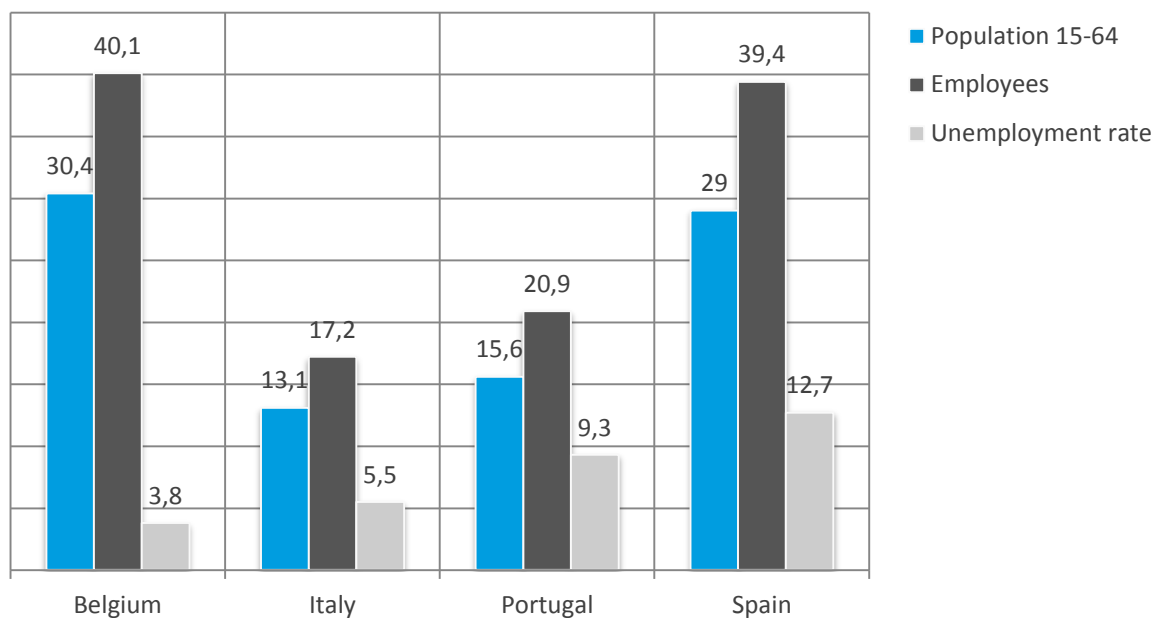


Figure 4 - Population with Higher Education Degree 2011 (Tertiary Education)

Looking at the Growth of employment we can observe in the figure below that Belgium had the biggest growth, followed by Italy. Portugal and Spain had a negative growth.

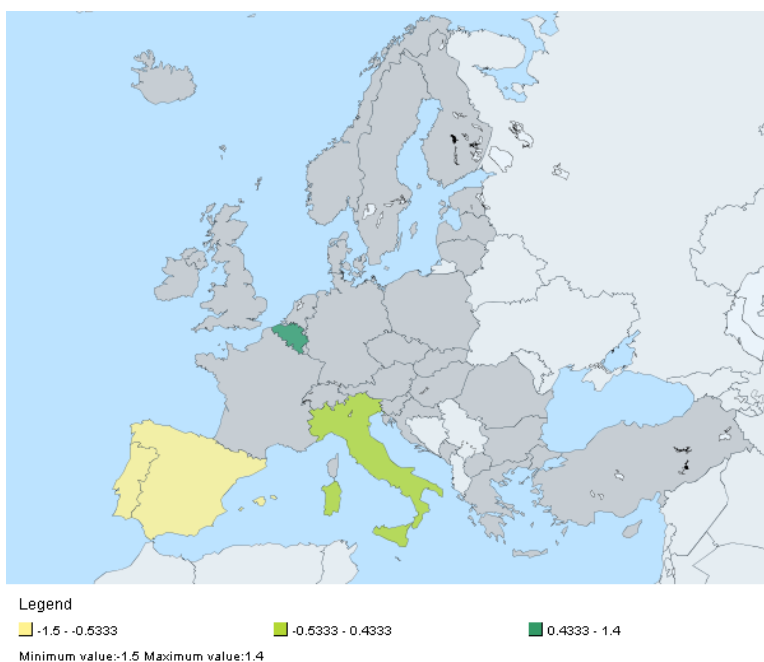


Figure 5 - Employment Growth (2011, src: Eurostat)

The employment rate, as observed in the figure below, shows that Portugal and Belgium have rates above 58%, followed by Italy, above 52% and Spain with 49,9%.

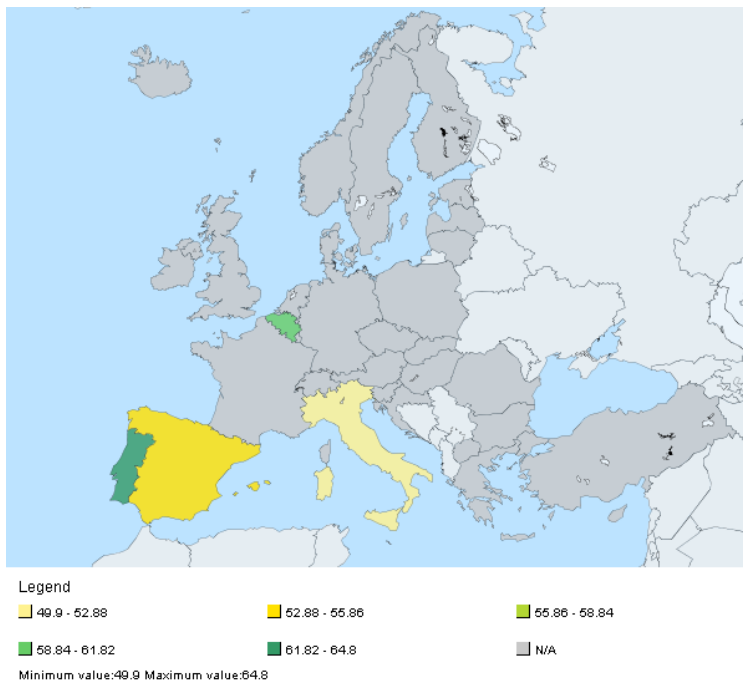


Figure 6 - *Employment Rate (2011, src: Eurostat)*

The part-time contracts are higher in Belgium, representing almost the double of Portugal, he country with less part-time contracts.

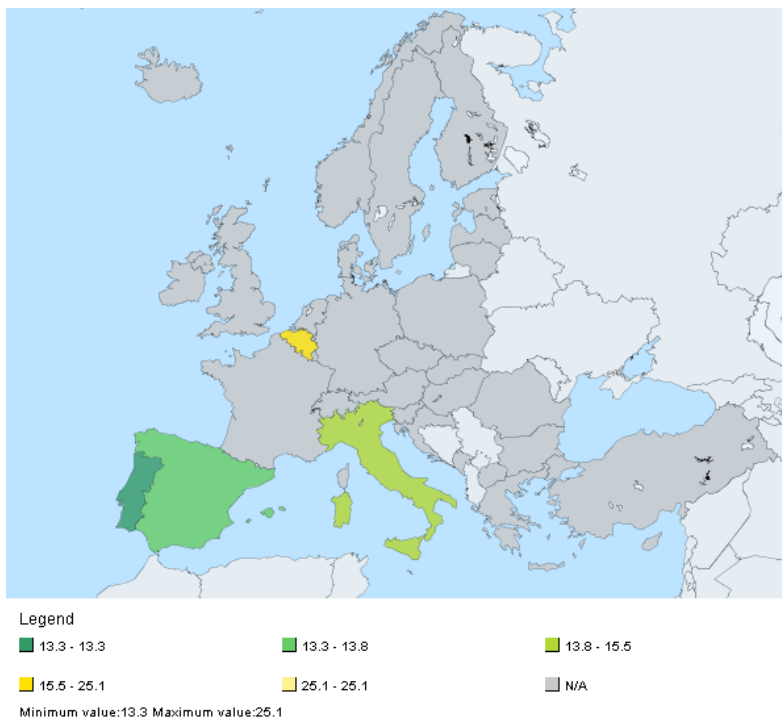


Figure 7 - *Employment part-time (2011, src: Eurostat)*

The number of contracts with limited time are bigger in Spain (above 22.5%) and Portugal and lower in Belgium (9%) and Italy.

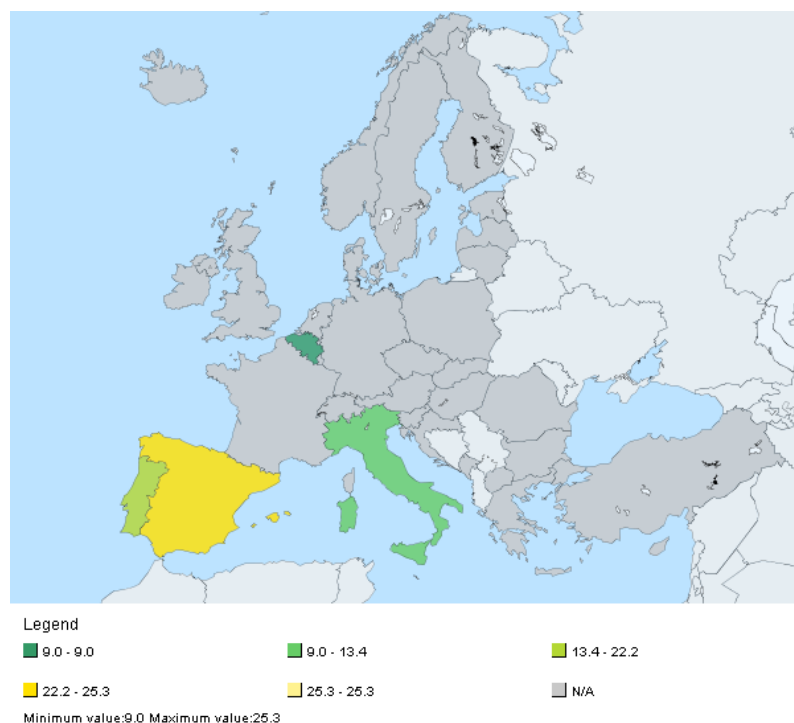


Figure 8 - *Employment limited time contracts (2011, src: Eurostat)*

Quality assurance

The quality assurance systems also took impact from the Bologna process. The need of comparing the study attainment and performance of students of higher education across the European Union also created the need of standard quality assurance.

The quality assurance of European universities are led by national organizations that comply with European standards, from ENQA, EUA and EURASHE, and are organized mostly in the same way.

In Belgium Flanders the quality assurance system is ensured by NVAO (Accreditation Organization of the Netherlands and Flanders), the organization was established by international. In Italy the quality assurance in higher education carried out by the internal evaluation centers, and the external evaluation carried out by the autonomous National agency for the evaluation of the university and research system (ANVUR). In Spain the evaluation of university education is ensured by the National Agency for Quality Assessment and Accreditation (ANECA). In Portugal A3ES Higher Education Evaluation and Accreditation Agency is the national agency for evaluation and accreditations.

Education

Total of students per faculty and educational area (Course programme)	IST	KUL	Polito	UPC
No. of graduate students (1st Cycle)	6395	18187	2499	29407
Number of MSc students (2nd Cycle)	3406	14577	8053	2476
Number of PhD students (3rd Cycle)	1093	4488	776	2937
International Undergraduate Students (1st Cycle) %		5,6	10,85	n/a
International MSc Students (2nd Cycle) %		14,6	15,06	31
International PhD Students (3rd Cycle) %		39,4	32,6	48
No. of graduate programmes (1st Cycle)	18	55	31	69
No. of MSc programmes(2nd Cycle)	28	176*	32	63
No. of PhD programmes (3rd Cycle)	29	52	23	46

* Includes "Master after Master" Programmes

Employment

Employability	IST	KUL	Polito	UPC
Students employed before completing their course (%)	55,7	n/a	17,8	n/a
Students employed up to 6 months after concluding their course (%)	85	n/a	67,2	n/a

Research

Research	IST	KUL	Polito	UPC*
Total of research units	29	277	18	213
Number of scientific publications (articles and proceedings)	1514	5199	3759	3193
Number of citations		3696	72421	n/a
Number of new patents filed	7	n/a	31	74
Number of Inventions	n/a	n/a	8	150
Number of start-ups	n/a	98	140	14

For 11-12 academic course

Human Resources

Human Resources	IST	KUL	Polito	UPC
Full Professors		1475	229	1886
Teachers		788	n/a	748
Researchers		4586	814	94
Non-academic staff		3213	843	1480

Finances

Financial Resources	IST	KULeven	Polito	UPC
Third party funds	61 M€			5,316,723
European Funds	n/a			9,343,918
Global funding	114 M€			343,1 M€



DATA COLLECTION & ORGANIZATION

The Experience Exchange

INTRODUCTION

The FOLLOW project is a partnership between the higher education institutions (HEI's) Instituto Superior Técnico, KU Leuven, Universitat Politècnica de Catalunya and Politecnico di Torino of the partner countries Portugal, Belgium, Spain and Italy. In this report, the different agents and their respective practices and activities in the area of monitoring and promoting of graduate employability in the FOLLOW partner countries and institutions are compared.

This report is the deliverable of the first work package (WP 1) concerning the information collection on the different internal and external performing agents and practices in terms of employability. The ultimate goal of this report is to provide comparative information on topics related to graduate employability in higher education. Data collection variables were determined by the FOLLOW coordinating institution, Instituto Superior Técnico, and agreed upon by all partners. Data were collected in the first half of 2012.

Figure 9 - WP 1 data collection topics and features.

Topic	Features
Performing agent	Identification
	Type: internal or external
	Brief description
Practice	Identification
	Type: monitoring, promoting or both
	Areas of intervention ¹
	Brief description
Human resources	Number of persons involved in each practice
	Estimated time spent on each practice (one-year period)
Material resources	Infrastructures
	Logistics
Impact	Results
	Deliverables
	Main effects

This table provides a list of all variables. These variables fall into three categories: those pertaining to the performing agents and practices, those pertaining to human and material resources and impact. In this report, we will center on the first category and discuss the performing agents and (best) practices of each partner successively in two sections. Where possible, we will give an indication of the resources involved as well as the main results and deliverables. Finally, in the third section we provide extended information on the mechanisms and motives behind the internal performing agents indicated.

¹ For monitoring practices, we have identified the following areas of intervention: follow-up of job search, follow-up of job vacancies, follow-up of internships, graduate employability observatories, follow-up of employability within companies (e.g. surveys on salary), internal indicators (e.g. surveys, internal reports, informal reports, qualitative surveys), external indicators (e.g. government, ministry, professional association) and other practices. For promotion, the following areas of intervention were identified: promotion of internships, dissemination of job search by students, job vacancies by companies, professional and career guidance, promotion of entrepreneurship, skills and education match (e.g. learning of employability or transferable skills), specific collaborations with companies (e.g. recruitment opportunities, promotion of field placements), link to alumni, public policies (e.g. government programmes, job centres), university as employer and other practices.

I. COMPARISON OF PERFORMING AGENTS

In this section, we provide an outline of the internal and external performing **agents** for each individual participating institution. In this respect, the main practices of each performing agent as well as the most common areas of intervention will be described.

1. Instituto Superior Técnico (IST)

1.1 Internal agents' identification

1.1.1 Technology Transfer Office

Technology Transfer Office (TTO) is the central office providing the link between IST and the labour market. This agent has the objective of enhancement of employability of graduates and a clear tradition of promotion of entrepreneurship and corporate relations.

The main activities of the Technology Transfer Office (TTO) are concerned with promotion. IST students are offered several recruitment opportunities through an online job bank platform, summer internships and other recruitment activities (i.e. forum of student associations and academic merit awards). This external agent organizes career sessions, scholarships and workshops for Master degree students to inform them about recruitment procedures and to reinforce and improve their labour market approach. Also, in the IST career weeks students and companies collaborate to organize events helping students set their professional future and helping companies to disseminate their needs and activities.

Results

In 2011-2012, 600 and 900 Msc students participated in the IST career sessions and career workshops respectively. In the IST career weeks almost 140 companies were represented².

Finally, different practices of TTO are focusing on promotion of entrepreneurship. For instance, the IST Spin-off network promotes active relationships between companies that have their origin in IST while maintaining a close relationship to IST. This network aims to stimulate students, graduates and researchers to create their own companies. Furthermore, the ISTART-I funding initiative supports potential entrepreneurs from different higher education institutions. This emphasis on promotion of entrepreneurship seems to be a rather **exclusive practice of this agent**.

1.1.2 Employability Observatory

In response to a legal requirement, IST has started to collect information on the employment situation of graduates by means of an Employability Observatory (OEIST). The OEIST collects and analyzes all information directly or indirectly linked with IST graduates' employability. This series of information is updated on a yearly basis, so that the evolution of graduate employability could be observed. There are several main concerns: promoting the appeal of IST' programmes as leading to high levels of employability, observing and evaluating the value of IST degrees in graduates' professional career, observing the value of skills obtained as well as the employability patterns and

² These results are realized by one person of TTO being responsible for the organization of these events.

levels of entrepreneurship, evaluating the correspondence between educational and professional profile and the evolution of the mobility and employment situation of graduates.

The Employability Observatory of IST (OEIST) represents a strong monitoring technique³. The graduate surveys are an important tool to collect information on the placement and evolution of IST graduates. Both recent graduates and graduates with 5 to 10 years of professional experience take part in this survey. The reports resulting from these surveys comprise detailed information both at institutional and course level and serve to disseminate the high levels of employability of IST graduates. In the senior students survey, current students are questioned regarding their employability capital, employability before graduation, satisfaction and perception of their future career. The departments of IST regularly present the employability of the programmes.

In addition, the national unemployment analysis of OEIST examines IST graduates' employability and the employability of graduates from other HEI offering similar programmes. More specifically, this analysis compares how many graduates are registered with unemployment centers by institution and course. This produces objective information on how IST performs in terms of employability when compared to similar institutions and therefore the national unemployment analysis serves as a **national benchmark**.

1.1.3 IST Student Association

Finally, the IST Student Association organizes and disseminates various activities relevant to the academic, social and professional life of IST students. More specifically, AIEST engages in promotion activities. Through the online job platform, students can easily access job search services. Furthermore, the Student Associations' Office for Job, Training and Entrepreneurship (GEFE) offers information and guidance for improving students' employability skills and entrepreneurship.

1.2 External agents' identification

1.2.1 Institute for Employment and Professional Training

The Institute for Employment and Professional Training (IEFP) is a public organization whose mission is to promote the creation and quality of labour on a national level. Through active labour policies and professional training IEFP aims to prevent unemployment, supported by a network of services in several offices. In fact, IEFP is specialized in offering professional internships for higher education graduates.

1.2.2 International programmes

The INOV programme has been created with the intention of providing international internships and facilitating the transition of young graduates to the labour market. A similar initiative has been taken with the inception of the International Association for the Exchange of Students for Technical Experience (IAESTE). This is an independent and international organization promoting the exchange of higher education students among member countries. In particular, IAESTE provides students in technical degrees with on-the-job training experience abroad.

Thus, INOV and IAESTE internships represent similar promotion initiatives to smooth the transition from higher education to employment.

³ There is only one person in charge of and occupied with the Graduates Employability Observatory at IST.

Conclusion

To summarize, the internal agents of IST are involved in **monitoring as well as promotion activities**. The most common areas of intervention in the field of promotion are promotion of entrepreneurship, professional and career guidance and recruitment opportunities. Furthermore, IST has been organizing observatories to monitor and promote graduate employability and to make a comparative analysis between higher education' graduates employment at a national level. The main external agents are public institutes or international programmes promoting internships and student exchanges to strengthen graduates' socio-professional skills and to facilitate a successful entry into the labour market.

2. KU Leuven

2.1 Internal agents' identification

2.1.1 Student Employment Service

The Student Employment Service is a central service by KU Leuven offering student jobs to students from all disciplines. Through active mediation with students and employers, this agent helps to find suitable candidates for suitable jobs and vice versa. International students can rely on this service as well and for students with special needs, intensive job guidance is provided. Furthermore, this internal agent can be contacted for additional and personal advice and information on social legislation with regard to student employment.

The main practice of this agent is concerned with promotion. Students of KU Leuven and associated institutions can register to a student jobs database and perform job searches corresponding with their skills, interests and availability. This information can also be accessed by employers.

Results

More than 9,300 students subscribed to the student jobs database in 2011-2012. The database consisted of 4,960 employers from inside and outside of university of which 619 employers had created almost 3,700 student positions in 2011-2012. In this period of time, the Study Employment Service has drawn up 2,430 contracts for student employment at KU Leuven for approximately 1,255 different students.

2.1.2 Study Advice Service

The Study Advice Service of KU Leuven is a central service providing information and advice on further education and employment for a very broad target group.

Results

In 2010-2011, 6,144 students and future students contacted the Study Advice Service for guidance or advice. Future students (36,9%) typically contact the service for information on their future programme of study at KU Leuven. Current students (57,4%) frequently request additional information about their programme, tutoring services, reorientation,... Also, special attention is paid to international students.

The promotion activities of this central service are extensive. The Study Advice Service provides orientation activities for future and incoming students, actual students and students graduating from university. This service is also responsible for the organization of professional career guidance activities, targeting all last year university students (i.e. not engineering students in particular). In this respect, this agent organizes a job fair and several information sessions in cooperation with companies as well as job and competency trainings spread over the academic year. The job

information day is the most important event, consisting of a job fair and information sessions for last year students from all disciplines. Students have the possibility to register their resume on CD-ROM. In cooperation with EURES and VDAB, several European career counselors are present at this event. Finally, the Study Advice Service has set up an internship and job openings database for students and companies.

Results

In 2011, 88 companies took part in the job information day. This event attracted approximately 1,500 last year university students of which 1,263 had registered their resume. The curricula as well as students' contact information are delivered to participating companies.

In 2010-2011 between 100-450 last year students participated in the information sessions on employment in different sectors: working in the cultural sector, media sector, public services to diplomacy, working at the EU and UN, working abroad (in cooperation with EURES and VDAB) and working in developing countries. In the application training, there were 400 participants. Finally, 2,657 job openings and 73 internship offers were posted online in the job openings database. Up to now, more than 5,400 employers are registered in the database.

To follow-up and monitor the employment situation of recent graduates, Study Advice Service organizes alumni surveys for graduates of all Initial Master's and Master after Master programmes. These graduates are questioned one year after graduation and for each Faculty and department, a report with the results is produced.

2.1.3 Student Association of the Faculty of Engineering Science

The Student Association of the Faculty of Engineering Science (VTK) offers a range of services to engineering students, but engages only in promotion activities. The Business Relations department is responsible for the organization of several events such as stage fairs, job fairs, job fora and on campus interview days. The stage/job fair and job forum are yearly events consisting of company presentations and information sessions where students can explore internship and job possibilities. During the career days, students are offered professional career guidance as they could attend lectures and soft skill trainings focusing on different steps in the application process. This association also organizes specific workshops for last year students imparting specific skills (e.g. how to write a Master's thesis). Finally, engineering students could engage in panel discussions with companies, consult a job openings and internships database and publish their resume online.

2.2 External agents' identification

2.2.1 Flemish Public Employment Service

The Flemish Public Employment and Vocational Training Service (VDAB) is responsible for employment services, job training and career guidance in the Flanders region⁴. The local job shops in the Flemish cities and municipalities provide services of labour market mediation and vocational training. The provincial training centres focus on the development and assessment of competences.

This external agent is involved in monitoring and produces annual statistics on school-leavers and their current employment situation. The school-leavers study, however, includes persons with lower educational qualifications and is not limited to graduates of higher education. Still, this study gives a clear picture of the success of higher education programmes with regard to labour market entry.

⁴ In Belgium, the majority of labour market activation measures are managed at the regional level. Also, the delivery of employment services is regionalized. There are four Public Employment Services (PES) that cover the Belgian territory and job seekers have to register at the employment service in their region: VDAB in Flanders, ACTIRIS in the Brussels-Capital region, Le FOREM in the Walloon region and ADG in the German speaking region.

Furthermore, this public employment service promotes recruitment and placement for different type of job seekers⁵. They can register their resume online and receive job offers through multiple channels, such as face-to-face contact in local offices, call centers,... They can search a database with job openings, subscribe for automatic job matching and dissemination by e-mail. Finally, VDAB participates in the EURES network helping several Flemish employers in **recruitment from abroad**.

2.2.2 Royal Flemish Society of Engineers

The Royal Flemish Society of Engineers (KVIV) engages in monitoring as well as promotion activities. The career and salary survey of this agent is intended for Flemish civil, agricultural and industrial engineers working in the private sector in Belgium. The survey focuses on job, career and salary and is aimed to inform employees and employers about engineering jobs and salaries.

Results

In 2010, 2,865 Flemish engineers took part in the career and salary survey. In the report, there is paid special attention to the comparison of civil (and agricultural) engineers graduating from university and industrial engineers graduating from university colleges. The main factors that affect gross monthly salaries are years of work experience, sector and region of employment, number of employees, leadership capacities and function level.

The promotion activities of this external agent involve job services for members, professional advice on different employment matters and members can also submit their resume for analysis.

2.2.3 IE-net

IE-net, the community for all people with a passion for engineering and technology in Flanders, organizes specific promotion events where engineering students can meet and speak to employers. In addition, IE-net conducts a graduate survey for recently graduated civil, industrial and agricultural engineers as well as professional career surveys intended for 25-50 year old professionals as well as senior-professionals to follow-up employability within companies. Thus, similar to KVIV, this agent is occupied with both promotion and monitoring tasks.

2.2.4 Other: e.g. salary surveys

In Belgium, there are different sources available for information on employability and labour market outcomes. But only the above mentioned surveys are **dedicated to engineering students, graduates or professionals**. Other examples are:

1. Salary survey: survey of the Belgian working population organized by Vacature magazine in cooperation with the KU Leuven Faculty of Business and Economics. This annual salary survey focuses on the average starting salaries for each degree and sector. However, the results do not enclose specific information on higher education institutions.
2. Labour force survey: survey in the member states of the European Union, coordinated by Eurostat. The survey is executed in Belgium by the federal public service of Economy.
3. SONAR survey 'from education to labour market': longitudinal survey that registers the transition from school to work of Flemish youngsters. E.g. 3,010 Flemish youngsters, born in 1976, 1978 and 1980 have been interviewed face-to-face about their educational and labour market career over different periods of time.

⁵ These types of job seekers are young people, immigrants, long term unemployed, occupationally disabled persons and persons over the age of 50.

Conclusion

For KU Leuven, we have identified a lot of existing but disparate efforts from internal as well as external agents with practices emphasizing **promoting rather than monitoring activities**. The internal agents offer promotion and recruitment opportunities, professional and career guidance and specific company collaborations. In comparison, the external agents and associations are monitoring graduates' employability through graduate employability surveys and surveys of the working population.

3. Universitat Politècnica de Catalunya (UPC)

3.1 Internal agents' identification

3.1.1 UPC Alumni

UPC Alumni is a central service of UPC offering career guidance, training, networking opportunities and other activities to its graduates. The aim is to foster new professional and personal relationships and augment employability possibilities⁶. Therefore UPC Alumni is focusing on promotion activities.

This agent organizes career guidance activities such as personal interviews, career counseling, job search seminars or sessions, specific orientation programmes and professional skills workshops (job interviews, psychometric testing, group dynamics, selection processes,...). There are also regular collaborations with companies: recruitment activities and company presentations explaining career opportunities for graduates, visits to industrial plants, visits to companies to find and identify new areas, new profiles, new working environments... Moreover, there are conferences, roundtables on career opportunities, professional sectors, international mobility,... UPC Alumni offers online job vacancies exclusively for juniors and seniors, assistance and support for companies regarding recruitment of people with technical profiles, recruitment for national and international companies,... Finally, UPC Alumni organizes networking sessions aiming to encourage and support professional relationships between UPC community members. These events are organized relating to specific subject areas or around one of the schools of UPC⁷.

Results

The career guidance activities of UPC Alumni consist of about 400 personal interviews a year. In the same period of time, on average about 25 job search seminars or training sessions are organized. There are 6-10 company presentations and 2-3 conferences and information sessions a month, each time for about 50-80 participating students. The specific orientation programmes are organized less frequently, about 1-2 times over a one-year period. Finally, there are monthly networking sessions to maintain the link to alumni.

⁶ UPC Alumni employs up to 7 persons of which 1-3 are working part time on each practice. The most labour intensive practices of UPC Alumni are the job search seminars, guidance activities and professional skills workshops.

⁷ The schools of UPC are: EET Terrassa School of Engineering, EETAC Castelldefels School of Telecommunications and Aerospace Engineering, EPSEB Barcelona School of Building Construction, EPSEM Manresa School of Engineering, EPSEVG Vilanova I la Geltru School of Engineering, ESAB Barcelona School of Agricultural Engineering, ETSAB Barcelona School of Architecture, ETSAV Valles School of Architecture, ETSECCPB Barcelona School of Civil Engineering, ETSEIAT Terrassa School of Industrial and Aeronautical Engineering, ETSEIB Barcelona School of Industrial Engineering, ETSETB Barcelona School of Telecommunications Engineering, Barcelona School of Informatics, FME School of Mathematics and Statistics, FNB Barcelona School of Nautical Studies.

3.1.2 UPC Schools

UPC is composed of various schools each of which do have a role in promoting graduate employability⁸. In fact, each school has taken a similar approach, offering internships for students at Bachelor and Master level, incorporating job offers for students in schools' job lists, promoting exchanges through international mobility programmes and cooperation, supporting other student initiatives of BEST, IAESTE,...

In cooperation with companies, most schools hold business fora and company fairs where invited companies explain their career opportunities (nine to ten times a year). These events are mostly organized by students of the schools, with the agreement of the school but there are cases in which the company days are organized directly by the school itself.

Finally, through the Ministry of Work and Industry of the Government of Catalonia UPC is participating in the EURES network. In this context, numerous promotional activities are organized for students.

3.2 External agents' identification

3.2.1 AQU Catalunya

The Catalan University Quality Assurance Agency (AQU Catalunya) is a public entity with an internationally recognized status. Its mission is to assure the quality of higher education through compliance with the European standards of quality and to safeguard of the interests of society in the quality of higher education. More specifically, AQU Catalunya reviews Catalan university institutions, degree programmes, degree courses, faculties, schools and services. Since 2011, the Agency is implementing the framework for the validation, monitoring, modification and accreditation of recognized programmes, with the purpose of life-long quality assurance and continuous enhancement of degree courses.

For more than twenty years, Catalan universities have conducted studies of graduate placement. These studies have served as the basis for understanding the process of transition for graduates between the university and the labour market and, in certain cases, the degree of graduate satisfaction regarding the training received at university. Both the format and content of these studies were, however, specific and corresponded to the objectives and priorities of each individual university.

In 2000, AQU Catalunya and the seven public Catalan universities (Universitat de Barcelona, Universitat Autònoma de Barcelona, Universitat Politècnica de Catalunya, Universitat Pompeu Fabra, Universitat de Girona, Universitat de Lleida and Universitat Rovira i Virgili) agreed to an ambitious project to carry out a transversal assessment of university graduate placement in the labour market. This pioneer project, which for the first time included all of the universities, involved harmonization of the methodology used to compare and integrate the information and extract reliable conclusions in reference to the situation in Catalonia.

The project involved three main processes:

1. The establishing of a frame of reference for the evaluation of the state of graduate placement according to the different forms of university education in Catalonia, Spain and Europe;

8 In each school, there is only one person in charge of the promotion activities, working part time.

2. Preparation of a methodology to assess the process of university graduate placement in the labour market;
3. A survey on graduate placement and collection of information.

Given the importance of the survey as an instrument, periodic repetition and gathering of information were estimated to be a positive way of establishing records that would show the ongoing development of graduate placement and allow for the analysis of trends.

3.2.2 Barcelona Activa

Barcelona Activa is an institution financed by the City Council of Barcelona to foster employability through training and job offers. Porta 22 is Barcelona Activa's employment facility offering a range of services and resources for professional development: e.g. labour orientation, training and inclusion programmes that combine training with work experience. It is also supporting entrepreneurs, innovation, improvement and the creation of employment.

This external agent is focusing on promotion.

Barcelona Activa Porta 22 provides numerous services and activities that are tailored to students and graduates. First, Porta 22 offers individual counseling and training, professional development programmes and coaching as well as other initiatives. For instance, there are workshops at UPC helping students to develop job search skills and enhancing personal and career development. Second, Porta 22 allows students and graduates to register their resume in a database and to get in touch with companies collaborating with Barcelona Activa. Finally, this external agent provides guidance and career support based on an innovative model with the main objective of discovering and bringing out peoples' talent and helping them developing their professional potential.

Conclusion

The different schools of UPC as well as UPC Alumni represent UPC's internal agents. These agents focus exclusively on **promotion activities** that include specific company collaborations and events, sessions and workshops relating skills and education. The external AQU Catalunya is implementing monitoring observatories of graduate employability at Catalan universities and Barcelona Activa is fostering employability of students and graduates through professional career guidance and training as well as job offers.

4. Politecnico di Torino (POLITO)

4.1 Internal agents' identification

4.1.1 Stage & Job unit

Stage & Job unit of Politecnico di Torino is a central unit offering a service of support to companies and students or graduates to improve job matching. The team responsible for this unit matches demand and offer of online internship vacancies and manages paperwork. In addition, the Stage & Job unit monitors internships through surveys and questionnaires and disseminates different placement activities.

This agent engages in various practices in the areas of monitoring and promotion. Through an observatory, the Stage & Job unit aims to monitor the effectiveness of internships offered and improve the quality of the students' work experience. Therefore students complete a questionnaire at the end of their internship. Furthermore, the Stage & Job unit promotes internship and job

positions on a devoted webpage and through sending internship or job offers to students and graduates with the requirements specified in the job description. In career counseling, this unit also provides professional and career guidance through individual support for students writing their resume, preparing interviews and conducting job search.

Results

In general, the management of internships by Stage & Job unit of Politecnico di Torino is very successful. In 2010-2011 3,071 internships were activated of which 2,138 curricular or compulsory and 933 extra-curricular. What is more, 10% of internships ended with a job offer and 24% if the internship was optional.

By the same token, the thematic workshops of the Stage & Job unit give students and graduates the practical and theoretical tools to enter the world of work (e.g. soft skills training, etc.). Furthermore, this unit maintains specific collaborations with companies and events such as regular on campus events, career days, specific job and orientation fairs and visits to industrial plants. The Stage & Job unit also organizes an infostage event in order to support students in finding internships and generates a graduates database⁹.

Results

In 2010-2011, 34 on campus events were organized and each event attracted on average 35 students. In short, the Stage & Job events attract a large number of students as the different on campus events have reached approximately 1,200 students. Moreover, Politecnico di Torino had 57 participating companies and 2,300 students or graduates attending the career days or job fair in 2012. Finally, at the infostage 30 companies were present helping about 300 students a year in finding an appropriate internship.

4.1.2 Incubatore di Imprese Innovative

I3P, Incubatore di Imprese Innovative del Politecnico di Torino, promotes the creation of new science-based start-ups either founded by university researchers or entrepreneurs from outside the university sphere. It provides open spaces and professional consulting services as well as a network of entrepreneurs, managers and investors. I3P is a non-profit consortium constituted by, among others, Politecnico di Torino.

I3P is focused on the promotion of entrepreneurship and launching start-ups to exploit the results of research in different fields. There are different activities in the field of technology transfer incubation. The Start Cup Piemonte Valle d'Aosta is a competition for the best innovative and knowledge-based business ideas aimed at creating innovative enterprises within the incubators or the province of the supporting agencies. The competition is free of charge and the best business ideas can engage in pre-incubation activities organized by the promoters of the competition that are providing the key tools to set the business plan. Pre-incubation activities include tutoring and coaching by experts in the drawing up of a business plan. In the second stage of the competition, winning ideas can compete for cash prizes.

⁹ The Stage & Job unit of Politecnico di Torino employs 9 persons in total, of which 1-4 people are working on each practice. The most labour intensive practices besides the management of internships are the specific job and orientation fairs, on campus events, mailing lists, factory tours, career days and thematic workshops.

4.2 External agents' identification

4.2.1 AlmaLaurea

The first external agent is AlmaLaurea, run by a consortium of Italian universities with the support of the Ministry of Education, University and Research. AlmaLaurea is a reference point for everyone who deals at different levels with issues as academic studies, employment and youth conditions.

AlmaLaurea is offering monitoring services. On the one hand data are collected regarding the graduates' career and on the other hand different courses, faculties and universities in the consortium are analyzed and compared with regard to graduates' characteristics and performances as well as the effectiveness of the study programmes in the labour market. As a result, AlmaLaurea publishes an annual report on graduates' employment situation, examining the employment condition of graduates after one, three and five years of graduation. For each university, faculty, degree,... a number of factors as employment conditions, time needed to access the labour market, contract, earnings, effectiveness,... are examined.

The placement tasks include facilitating and improving the access of young people to the labour market. Students' curricula are published on the website and can be consulted by hiring companies. In the AlmaLaurea databank information of recent graduates and graduates with work experience is gathered. This service providing online graduates curricula seems to be an **exclusive practice of this agent**. Furthermore, students can access job offers posted by companies.

Results

The AlmaLaurea-databank can be consulted online from 1994. It comprises more than 1,670,000 curricula in August 2012, involving 78% of Italian graduates from 64 Italian universities. Every year about 150,000 units are added.

4.2.2 Centro per l'Impiego della Provincia di Torino

Centro per l'Impiego della Provincia di Torino is a local job center for employees and companies providing employment services such as information, orientation and placement services. The main purpose is to tackle unemployment and improve the match between labour supply and demand.

This agent promotes recruitment opportunities and job vacancies by companies. This center also established specialist employment services for high profile professionals in the Sportello Alte Professionalita. Finally, the Centro per l'Impiego della Provincia di Torino is linked to the EURES network. EURES offers access to the labour market at local, national and European level to all job seekers, employers and companies specializing in recruitment. EURES provides information on jobs and job seekers and offers a wide range of services to assist in job searches and recruitment.

4.2.3 BEST Torino

BEST Torino is a non-profit European student network providing communication and cooperation as well as exchange of students in the most important Technical Faculties and Universities all over Europe. BEST develops activities in order to help European technology students to become more internationally minded, by reaching a better understanding of European cultures and developing capacities to work on an international basis.

BEST Torino conducts promotion activities by offering an online service that connects students with companies. It gives students a chance to browse through offers from companies and universities and to send their resume.

4.2.4 Junior Enterprise Torino Politecnico

JETop, the Junior Enterprise Torino Politecnico, is an apolitical and non-profit association run by students of Politecnico di Torino with the goal of creating direct contact between the university and the world of work. In this context, JEToP has set up promotion activities such as collaborations with companies and this association also organizes a yearly job fair targeted to students and graduates.

Conclusion

Politecnico di Torino has identified different internal and external agents offering services to students and graduates as well as companies and employers. There is a clear emphasis on **promotion activities** by internal agents. The Stage & Job unit of Politecnico di Torino engages in different activities in the area of promotion, such as specific collaborations with companies and recruitment offers. Politecnico di Torino also participates in I3P, a non-profit consortium promoting entrepreneurship. AlmaLaurea is the main external agent run by a consortium of Italian universities and occupied with **both promotion and monitoring tasks**. On the one hand, AlmaLaurea conducts graduate employability observatories and on the other hand AlmaLaurea collects information on graduates' curricula that are gathered in a databank.

Discussion

The first section of this report has revealed significant similarities and only minor differences between the agents identified by our partners. Below we highlight a few of the most striking similarities between performing agents:

Promotion

Both at IST and Politecnico di Torino, there is an internal office dealing with the transition from higher education to employment. For instance, the Technology Transfer Office of IST aims to enhance the employability of graduates through school guidance activities and collaborations between students and companies. The Stage & Job unit of Politecnico di Torino specializes in offering internships and job positions, but also offers professional and career guidance, specific training and collaborations with companies.

In comparison, there is no central unit at KU Leuven or UPC dealing exclusively with the transition to the labour market. There are two central offices at KU Leuven, one of which related to student employment with the purpose of helping students to find student jobs in or outside university. The other service was established to inform students about further education and employment and in this respect students can register for several orientation and career guidance activities. These entities and their practices could potentially have a positive impact on students' career development. However, they do not have the explicit objective to enhance graduate employability.

IST and Politecnico di Torino also have an internal agent focusing on the promotion of entrepreneurship. The Technology Transfer Office of IST launches initiatives to promote and support potential entrepreneurs. Likewise, the Innovative Enterprises Incubator of Politecnico di Torino promotes the creation of new science-based start-ups from inside or outside university. At the other FOLLOW partner institutions, there were no agents identified that are occupied with the promotion of entrepreneurship.

IST, KU Leuven and Politecnico di Torino have identified a student association offering various promotion services. For instance the IST Student Association manages an online job platform for recruitment opportunities, while the Student Association of the Faculty of Engineering Science at KU Leuven also performs a similar service. Further, the Student Association of the Faculty of Engineering Science organizes different events in collaboration with companies such as annual job fairs similar to the event of Junior Enterprise Torino Politecnico.

Monitoring

Both IST and Politecnico di Torino have agents operating in the area of national comparative studies and analysis of graduate employability. OEIST conducts a national analysis of IST graduates' employability as well as the employability of graduates from other national higher education institutions. Likewise, AlmaLaurea examines the employment condition of graduates. For each university, faculty and degree in the consortium a number of factors are analyzed and particular attention is given to the effectiveness and added value of the study programmes. Yet, AlmaLaurea is no internal agent of Politecnico di Torino. For UPC, now the AQU Catalunya is conducting quality review studies at institutional, programme and course level.

Both AlmaLaurea and the Public Employment Service in Flanders have a similar mission of facilitating and improving access of people to the labour market and both closely monitor graduates' employment situation. Yet, the report published by the Flemish Public Employment Service does not include a comparative analysis between higher education institutions or programmes and is limited to the Flemish region. In contrast to other partners (i.e. Portugal), there is no legal demand or requirement in Belgium to report figures concerning the employability of graduates at an institutional, programme or course level. Also, AlmaLaurea is a private entity run by a consortium of Italian universities with the support of the government while the Flemish Public Employment Service is a public authority.

Also, the external Institute for Employment and Professional Training in Portugal and the Flemish Public Employment and Vocational Training Service are both Public Employment Services (PES). Moreover, the rationale of Barcelona Activa in Spain and the Centro per l'Impiego della Provincia di Torino in Italy closely resembles the mission of these Public Employment Services. In addition, each of these agents offers services not only to job seekers, but also to companies. Moreover, each of these agents participates in the EURES network.

II. COMPARISON OF PRACTICES

In this section, we elaborate on the different monitoring and promotion practices and techniques carried out by the agents outlined in the previous section. The main similarities and differences between the practices will be addressed where possible, organized by each area of intervention.

Discussion

It can be argued that most internal agents of the FOLLOW partners engage in multiple practices or multiple areas of intervention. Instead, most external agents concentrate on one particular area of intervention – sometimes overlapping with the interventions of the internal performing agents.

In the next 2 Tables we give an overview of the most common areas of intervention per type of practice (promotion or monitoring) and higher education institution.

Figure 10 - Overview of the most common areas of intervention (promotion) per institution.

	IST	KUL	UPC	POLITO
Promotion of internships	✓	✓	✓	✓
Recruitment opportunities	✓	✓	✓	✓
Professional guidance – skills and education match	✓	✓	✓	✓
Entrepreneurship	✓			✓
Link with companies – companies collaborations	✓	✓	✓	✓
Link to alumni			✓	

✓: practice carried out by internal agent

The type of practices most frequently employed are concerned with promotion rather than monitoring. The most common areas in the field of promotion are:

4. Recruitment opportunities: job search by students and/or dissemination of job offers;
5. Professional and career guidance activities including skills and education match;
6. Specific company collaborations.

At least one internal agent of each participating higher education institution has developed activities in these areas of intervention. The practices of these agents in these areas are also very similar. For instance, the career sessions of IST are comparable to the job training services provided by the KU Leuven Study Advice Service, the career counseling offered by Politecnico di Torino and the orientation programmes and seminars offered by UPC Alumni.

The following table shows that all partner universities have internal agents that developed activities in the field of promotion of internships. Also, the table clearly indicates that IST and Politecnico di Torino are the only institutions of which an internal agent is occupied with the promotion of entrepreneurship. UPC seems to be the only institution maintaining a strong link to alumni through an internal agent. Other areas of intervention such as public policies, university as employer and other practices were less or not represented and therefore not incorporated in the Table.

Figure 11 - Overview of the most common areas of intervention (monitoring) per institution.

	IST	KUL	UPC	POLITO
Follow-up of internships				✓
Employability observatory	✓	✓	(✓)	(✓)

✓: practice carried out by internal agent

(✓): practice carried out by external agent

In comparison, the most common areas in the field of monitoring are graduate employability observatories and follow-up of internships. Every institution has an internal or external agent implementing graduate employability observatories (. The graduates survey and the national unemployment analysis are the most important practices conducted by OEIST. This is driven by a legal demand in Portugal to report figures concerning the employability of graduates at an institutional, programme or course level. Likewise, the alumni career research of the Study Advice Service of KU Leuven allows gathering knowledge on graduates' employability. In Spain and Italy, the external agents AQU Catalunya and AlmaLaurea are responsible for conducting graduate employability observatories. It seems that other monitoring activities are fragmented and exclusive for each partner or agent and dependent of the different realities and legislation in each country. The Stage & Job unit of Politecnico di Torino for instance, organizes events in order to support students in finding internships and monitors internships' effectiveness. Lastly, there were no practices classified in the areas follow-up of job search, follow-up of job vacancies, employability within companies, internal and external indicators.

To conclude, in the following table a list is given of all practices for each area of intervention per type and higher education institution.

Figure 12 - Overview of all practices for each area of intervention per type and higher education institution.

	IST	KUL	UPC	POLITO
Monitoring				
Follow up of internships				<p>Stage & Job unit Internship management. Matching demand and offer of internship vacancies.</p> <p>Stage & Job unit Internship observatory. Survey aimed at monitoring internships' effectiveness and improving the quality of work experience.</p>
Employability observatory	<p>OEIST Graduates survey. Main information collection tool about the placement and evolution of IST graduates. Both recent graduates and graduates with 5-10 years of professional experience take part in the survey.</p> <p>OEIST Employability reports. Detailed information on the levels of employability both general at IST level and specific for each course.</p> <p>OEIST National unemployment analysis. Analysis and comparison between IST graduates' employability and employability of graduates from other HEI (national benchmark).</p>	<p>Study Advice Service Alumni career research. Surveys of MSc programmes' graduates. Data are collected regarding employment status, sector, income, fringe benefits, period of job search, duration of job search, main reason for recruitment and usefulness of the degree.</p> <p>Royal Flemish Society of Engineers Career and salary survey. Survey focusing on job, career and salary intended for Flemish civil, agricultural and industrial engineers working in the private sector in Belgium. Purpose is to inform employers and employees about engineering jobs and salaries.</p> <p>IE-net Employability observatories.</p>	<p>AQU Catalunya Quality reviews and reports. Reviews of Catalan universities at institutional, programme and course level.</p> <p>AQU Catalunya Graduate placement surveys. Survey to assess university graduate placement in the labour market.</p>	<p>AlmaLaurea Graduate employability observatories. Data are collected regarding graduates' career, courses, faculties and universities in the consortium are analyzed and compared with regard to graduates' characteristics and performances as well as the effectiveness of the study programmes in the labour market.</p> <p>AlmaLaurea Employability reports. Report on graduates' employment situation, examining their employment condition after one, three and five years of graduation. For each university, faculty, degree a number of factors are examined and compared.</p>

	IST	KUL	UPC	POLITO
	<p>OEIST Disciplinary journeys presentations. Events held by departments of IST in which they promote and present multiple aspects of the courses including employability.</p> <p>OEIST Senior students survey. Survey of current students and their employability capital: employability before graduation, satisfaction, level of participation in non-academic activities, perception of future professional career and reputation of IST among employers.</p>	<p>Surveys intended for recently graduated civil, industrial and agricultural engineers focusing on their professional activities. Further, IE-net also conducts professional career surveys intended for 25-50 year old engineers and senior-professionals.</p> <p>Flemish Public Employment Service School leavers' study and report. Yearly report on graduates' employment situation in the Flemish region.</p>		
Promoting				
Promotion of internships	<p>IST Summer internships. Internships to provide MSc students with an opportunity for on-the-job experience.</p> <p>IEFP Professional and qualification Internships (12 months) in order to strengthen the socio-professional skills of unemployed HE graduates and facilitate their transition to the labour market.</p> <p>INOV and IAESTE Internships. International internships increasing the mobility of young professionals.</p>	<p>Student Association Stage fair. Exposition of companies introducing their internship possibilities.</p> <p>Student Association Internships database. Overview of internships.</p>	<p>UPC Schools Bachelor and Master internship offers. Each school of UPC develops their own internship opportunities.</p>	<p>Stage & Job unit Internship posting. Promotion of internships on a devoted webpage.</p>

	IST	KUL	UPC	POLITO
Recruitment opportunities (e.g. job search by students and job vacancies by companies)	<p>IST Job bank. Online platform designed with the objective to make the labour market needs and the skills of IST students converge.</p> <p>IST Forum of student associations. Platform for collaboration between student associations and IST to disseminate recruitment activities or other activities to skills development and training by e-mail.</p> <p>IST Academic Merit Awards. Job offers or recruitment activities with companies and students associations, supported by those companies.</p> <p>IST Student Association Job Shop. Online platform on which students upload their CV's and search jobs.</p>	<p>Student Employment Service Student jobs database. Database to which students can register and search for a student job offered by employers from inside and outside KU Leuven. Students can enter their skills, interests and availability.</p> <p>Study Advice Service Job openings database. Job vacancies and internships by companies. But also dissemination of job search by last year students, alumni and PhD students. They can search by discipline, sector and region.</p> <p>Student Association Resume book. Students might publish their resume online.</p> <p>Royal Flemish Society of Engineers Job services. Members can publish their resume online as well as offline and get an overview of vacancies for civil and agricultural engineers. They can obtain professional advice on different employment matters and submit their professional resume for analysis.</p> <p>Flemish Public Employment Service Services for jobseekers. VDAB allows job seekers to register their resume online. They can also search a database with job openings posted by employers.</p>	<p>UPC Alumni Online job vacancies. Online publication of job vacancies by companies.</p> <p>UPC Alumni Conferences. Sessions for 50-80 participants aiming at showing graduates career possibilities and opportunities abroad.</p> <p>UPC Alumni Recruitment activities designed to meet companies' needs, to facilitate the employment of people with polytechnic profiles (with local, national or international companies).</p> <p>Schools of UPC Online job vacancies and internships for students by each school of UPC.</p> <p>Barcelona Activa Porta 22 Job offers. Students and graduates are able to register their resume in a database and get in touch with companies.</p>	<p>Stage & Job unit Job posting. Promotion of job positions on a devoted webpage.</p> <p>Stage & Job unit Mailing list and graduates database. Possibility to send internship or job offers to students and graduates with the requirements specified in the job description. Companies can request access to the graduates database through e-mail.</p> <p>Stage & Job unit Newsletter "Polijob". Periodical online newsletter to promote placement activities.</p> <p>BEST Torino Career support. Online service connecting students to companies. Students can browse through offers from companies and universities and send their resume.</p> <p>AlmaLaurea Promoting services. Students' curricula are published on the AlmaLaurea website and can be consulted by hiring companies. Furthermore, students can access job offers posted by companies.</p> <p>Centro per l'Impiego Sportello Alte professionalita. Employment services dedicated to high profiles.</p>

	IST	KUL	UPC	POLITO
Professional guidance – skills and education match (e.g. learning of employability or transferable skills)	<p>IST Career sessions aimed at master degree students and intended to inform about recruitment procedures.</p> <p>IST Career scholarships. Contest to give scholarships for the IST career workshops .</p> <p>IST Career workshops. Sessions of training and development offered to master degree students. The ultimate goal is to reinforce and improve IST graduates in their labour market approach and recruitment processes.</p>	<p>Study Advice Service Job training services. Information, workshops and training for last year students.</p> <p>Study Advice Service Competency training. Competency training for students and graduates in presentation and negotiation techniques and coaching.</p> <p>Student Association Career days. Invited lecture and soft skill trainings focusing on different steps in the application process, e.g. how to write a resume and cover letter, how to make a job interview successful and how to negotiate salary.</p> <p>Student Association Workshops preparing students to write their Master's thesis.</p>	<p>UPC Alumni Career guidance activities. Personal interviews assisting with the elaboration of students' resume. Follow-up by e-mail.</p> <p>UPC Alumni Job search seminars. Training sessions in small groups aimed at developing job search strategies to achieve successful job search and completion of the selection process.</p> <p>UPC Alumni Specific orientation programmes. Events organized in collaboration with a UPC school and external agents such as professional associations.</p> <p>UPC Alumni Professional skills workshops. Workshops for 20-25 people organized with the support of companies, professionals and experts to promote professional profiles linked to the polytechnic environment, reporting on the labour market or discuss employment prospects of graduates of UPC.</p> <p>Barcelona Activa Porta 22 Workshops helping students to develop job search skills and enhancing personal and career development.</p>	<p>Stage & Job unit Career counseling. Individual support for students writing their CV, preparing interviews and conducting job research.</p> <p>Stage & Job unit Thematic workshops. These workshops give students and graduates the practical and theoretical tools to enter the world of work (soft skills, etc.).</p>
Entrepreneurship	IST Spin-off network fostering			I3P Technology transfer

	IST	KUL	UPC	POLITO
	<p>active relationships between companies and companies-IST. Purpose is to stimulate students, graduates and researchers to create companies.</p> <p>IST ISTART I Funding. Initiative supporting potential entrepreneurs from different HEI. Office for job, training and entrepreneurship offering information and guidance for improving students' employability skills and their ability to start their own companies.</p>			<p>incubation activities. Different initiatives for technology transfer, incubation and growth of enterprise.</p> <p>I3P Start Cup Piemonte Valle d'Aosta. Competition for the best innovative and knowledge-based business ideas aimed at creating innovative enterprises within the incubators or the province of the supporting agencies.</p>
Link with companies – companies collaborations (e.g. recruitment opportunities, promotion of field placements)	<p>IST Career weeks. Cooperation of students and companies in organizing events helping students set their professional future and helping companies disseminate their needs and activities. Companies can choose in which events they want to participate.</p>	<p>Study Advice Service Job information day. Job fair and information sessions for last year students from all disciplines.</p> <p>Study Advice Service Information sessions for last year students on employment in different sectors: cultural sector, media, public services, diplomacy, working at the EU and UN, working abroad and in developing countries.</p> <p>Student Association BR launch. Different activities as well as company presentations.</p> <p>Student Association Job fair and job fora. Company presentations and information sessions.</p> <p>Student Association Interview days. Interviews with</p>	<p>UPC Alumni Visits to publicize projects and companies located in the Catalan territory. Often career opportunities are presented.</p> <p>UPC Alumni Company presentations to explain career opportunities for graduates.</p> <p>Schools of UPC Company fair where invited companies explain their career opportunities. These events are mostly organized by students with the agreement.</p>	<p>Stage & Job unit On campus events. Events defined and promoted by companies. Companies can directly reach students and graduates with the requested qualifications and obtain feedback on the success of the event.</p> <p>Stage & Job unit Factory tours. Plants, productive sites, visits to laboratories.</p> <p>Stage & Job unit Career days. Job fair for Athenaeum students and graduates.</p> <p>Stage & Job unit Architects (or designers) on the job. Specific job and orientation fair dedicated to architects (or designers).</p>

	IST	KUL	UPC	POLITO
		<p>companies on campus.</p> <p>Student Association Panel discussions where representatives of companies debate about hot topics.</p> <p>IE-net Job events. Events where students and young graduates can meet and speak to potential employers.</p>		<p>Stage & Job unit Infostage. Two-day event in order to support students in finding internships.</p> <p>JETop Carriera & Futuro job fair. Event organized every year addressed to students and graduates.</p>
Link to alumni			<p>UPC Alumni Networking sessions. Events around a school or faculty of UPC aiming to encourage and support the professional relationship between members of UPC community.</p>	

III. CONTEXT INFORMATION

In this section, we provide extended information on the mechanisms and motives behind the internal performing agents indicated in the WP1 Matrix for each individual institution. In the data collection, we have centered on the following questions:

- Problems and issues: In what context or situation has the internal performing agent been created? What were the problems or issues that have led to the creation of the internal performing agent?
- Boundary conditions: What were the boundary conditions and resources available (e.g. human, financial and material resources) at the time of the creation of the internal performing agent? To what extent have these conditions influenced the option that was chosen?
- Goals and strategic objectives: What are the main goals and strategic objectives of the internal performing agent?
- Improvement possibilities: What were the biggest challenges the internal performing agent was confronted with in the past? How were these challenges addressed and what are the main challenges for the future? What improvement suggestions can be given?

This information allows partners to give feedback on the whys and wherefores certain performing agents have been created and why their practices have established.

1. Instituto Superior Técnico (IST)

1.1 Internal agents' context information

1.1.1 *Employability Observatory*

Problems, issues and boundary conditions

Since 1993, Instituto Superior Técnico (IST) has steadily addressed graduate employability. After collecting the first data on its overall graduate population in 1998, which until that point covered some programmes in an isolated manner, the procedure became broader. There has been a growing need to formalize a structure in order to collect reliably and regularly information on the socio-economic conditions of IST graduates. The legislation in force in Portugal which required the collection of employability indicators and the growing search of information by families, students, teachers and graduates were the main reasons for the establishment of the IST Employability Observatory (OEIST) in 2008.

The OEIST was created in 2008, taking advantage of the resources allocated to the Institutional Studies and Planning Office (AEP) of IST, which followed up its graduates through studies carried out on a regular basis (every 3 years). The social, legal and economic requirements and the need to convey an image of seriousness and methodological competence in processing and accessing information, as well as creating a hub in terms of communication with all the stakeholders, prompted it to make use of the already existing resources in the new structure. This allowed for

enhancing further all activities, namely the partnerships with other HEIs, with Students' Units, Departments and businesses, centralizing expertise and aiming at a better relationship with all partners.

Goals and strategic objectives

At the beginning, the OEIST aimed at being exclusively a statistic production unit on employability, and did not even take very elaborate dissemination initiatives into account. Recently, the OEIST's activity has focused on:

- 1 Promoting the attraction of IST programmes by disseminating their levels of Employability (internet; brochures; social networks; meetings; conferences; seminars, etc.);
- 2 Watching and evaluating the effects of training on the graduates' professional paths, namely the consistency between the training profile proposed and the professional profile acquired (qualitative and quantitative matrixes);
- 3 Watching and identifying the employability patterns of IST graduates, including the levels of entrepreneurship (in particular checking the propensity and levels of entrepreneurship and intra-entrepreneurship);
- 4 Analyzing critical factors constraining the evolution of employment and the levels of employability (in terms of curriculum, labour supply, sectoral analysis, etc.);
- 5 Watching and evaluating the contribution of training acquired at IST for the performance of graduates' professional activity, namely by monitoring the latter in the performance of their professional activities (in particular checking the importance of the different levels of skills and the responsibility for the development);
- 6 Evaluating the professional evolution/mobility from university to the last known job.
- 7 Participating in international projects and information sharing networks with a view to improving the capacity and understanding of these issues;
- 8 Strengthening the dynamics of attraction of HE candidates, HE students, and HE graduates, acting on the basis of the experience of the latter to reinforce the employability-support initiatives and measures.

Improvement possibilities

The challenges for 2013-2014 are as follows:

- 1 To integrate social networks in information sharing platforms on employability;
- 2 To promote informal meetings and get-togethers on employability;
- 3 To embark on new information processing and collection forms and methodologies, which are appropriate to the time of analysis and the instruments available (i.e.: open source software);
- 4 To organize a biannual International Conference on Employability of Higher Education graduates;
- 5 To carry out an annual thematic event associated with the areas of Intervention of Employability, in cooperation with national, public or private partners;
- 6 To launch half-yearly the OEIST Journal on Employability of Higher Education Graduates – "Journal of Graduate Employability".

At long-term:

- 1 To be able to take part in the national public policies by fostering the establishment of an integrated employability network in Portugal;
- 2 To create an international association on graduate employability with strong emphasis on short-term internships in different countries;
- 3 To foster the virtual knowledge network entitled "Graduate Employability", being an international repository of information with MSc and PhD theses on the issue and to organize meetings with some of the authors;
- 4 On a different issue, and considering the number of resources involved and the time allocated, further growth of investment is expected by allocating either resources exclusively to these activities or the necessary time.

2. KU Leuven

2.1 Internal agents' context information

2.1.1 Student Employment Service

Problems, issues and boundary conditions

In 1960 the Belgian legislator declared that universities had, outside their traditional missions, new responsibilities as a result of the marked increase in the number of students. These included student housing, food, health care, culture, sports, psychological orientation and vocational guidance.

The Student Employment Service of KU Leuven has evolved out of a student movement that had established a limited student employment office where both Dutch and French speaking students could address their demands for employment. In 1973, the Student Employment Service of KU Leuven was professionalized and could be seen as a central office and point of contact for the employment of students within KU Leuven. Initially, the Student Employment Service was only involved in external placement. From 1998 onwards it is offering placement services inside KU Leuven too. This has led to a more transparent and better service for students.

Goals and strategic objectives

The Student Services at KU Leuven aim to promote equal access to and participation in higher education for all students. This is done by offering material and immaterial support and by eliminating medical, psycho-socio-cultural or financial constraints. In particular, the Student Employment Service is considered as the central point of contact for all matters related to student employment. Students of KU Leuven and associated university colleges, including international students, students with disabilities and less wealthy students (for who student employment is often a means to generate additional income) are the main target groups for the Student Employment Service. The office consists of two units, one for active mediation and one for job administration. The first unit is responsible for providing advice and information on student employment and for recruitment and mediation processes. Students can contact this unit also for additional and personal advice and information on social legislation with regard to student employment. The job administration unit is responsible for management and handles all the administration.

Improvement possibilities

Two decennia ago the Student Employment Service mainly promoted student work and search for student jobs. Today the Student Employment Service has shifted its main focus to active mediation with students and employers. Still, focus lies on the student and not on the employer. In the future the Student Employment Service wishes to increasingly consult policy makers for improvements or modifications of existing or future legislation with regard to student employment. The Student Employment Service has to deal with continuous changes in labour market regulations. One of the main challenges for the future is the continuing evolution from face-to-face counseling to an online counseling service available 24 hours a day. Other challenges are the following:

- Extending its services for a growing group of international students;
- Building partnerships with the other Student Services of the KU Leuven Association;
- Developing a new database for an efficient and effective service to all actors and stakeholders. The use of various applications currently leads to loss of efficiency.

2.1.2 Study Advice Service

Problems, issues and boundary conditions

In the 1950s, universities had become more accessible and the number of students had increased. The Study Advice Service was founded in 1953 as a central service of KU Leuven with the mission to provide information and advice on further education and employment for university students. There was a widening participation in higher education, especially in the 1970s-1980s, after the abolishment of the high school exit exam. Universities had a clear tradition of providing tutoring services, mainly focusing on guidance of incoming and first year students. However, the idea had risen to guide students not only at the start but during their entire graduate career, until their transition from education to the labour market.

Goals and strategic objectives

- 1 Providing information and advice on further education and employment. For future and incoming students the service takes an individual approach, for actual and graduating students the approach is both collective and individual;
- 2 Organizing orientation activities (job information day, information sessions, job and competency trainings) for future and incoming students, actual students and graduating students both collective and individual;
- 3 Organizing career guidance activities targeting all last year students at the university, including international students.

Finally, this agent organizes alumni surveys to monitor the employment situation of graduates of Msc programmes.

The service addresses a very broad target group: future and incoming students, actual students and students graduating of KU Leuven as well as international students and students with disabilities.

Improvement possibilities

In general, students mostly contact the Study Advice service for information and advice or for personal guidance and reorientation. The number of contacts tends to increase. The main (future) challenges are:

- Improving the cooperation with faculties, and in particular
 - 1 To assume a facilitating role: improve the contact with faculties and promote the complementarity between the Study Advice service and the faculties;
 - 2 To (help) professionalize: encourage faculties to become more aware of and make use of scientific evidence. The Study Advice service offers expertise that needs to be shared and utilized better;
 - 3 To encourage cooperation between the service and the faculties. Now the service is provided independent from the faculties (education) itself.
- Improving the guidance of incoming students, without limiting access to higher education
- Increasing involvement in policy making

Other:

- Increasing assistance for specific target groups
- Introducing an online form where students can make an appointment

2.1.3 Student Association of the Faculty of Engineering Science

Problems, issues and boundary conditions

The student association is organized for and by the students of our Faculty. It has developed activities in the field of business relations, education, recreation and support. The business relations unit of our Student Association exists since approx. 2004. The business relations activities have been initiated by the Faculty of Engineering Science but have gradually been delegated to the Student Association. Since that time, our student association takes the lead in all employability matters and especially in promotion activities. This means that the Faculty is not involved, and it does not grant any direct financial support whatsoever to the student association.

Now the Student Association holds a well-established and in-depth expertise in the field of business relations. The budget has also grown over the last years.

Problems:

- There are only 6 student members in the business relations unit, not working on a fulltime basis. This is a limited number that has remained stable over the years. However, demand from students and companies alike has surpassed all expectations. There is a growing interest to participate, especially from companies. Also, if the number of graduating students is low, companies seem to be more willing to invest in recruitment;
- Material problems and boundary conditions. Infrastructure is inadequate, since there are only one or two auditoria suitable for events organization. The capacity is insufficient and certain events, such as the job fair, have reached maximum capacity.

Goals and strategic objectives

The main mission of this association is the representation of all students of engineering science and engineering architecture at departmental, faculty and university level.

The main goal of the business relations unit is to introduce and link students to companies and potential employers through several job events, such as the job fair, stage fair, job forum, on campus interview days (company collaborations). These events inform students and could also help giving brand awareness to certain small companies. Besides the company collaborations, there are career days, workshops (professional and career guidance) and a job openings and internships database (recruitment opportunities and promotion of internships).

Improvement possibilities

In the past, the student association has been confronted with an increasing demand from students and companies alike. In this respect, the team of student members has proven to be too small. For the future, the following challenges will arise:

- Integrating and profiling of civil and industrial engineers;
- Tackling logistical issues and infrastructure;
- Tackling issues related to human resources: limited number of student members who are not working fulltime and are often not motivated. The number of student members should increase, otherwise the student association could not handle the demand.

3. Universitat Politècnica de Catalunya (UPC)

3.1 Internal agents' context information

3.1.1 UPC Alumni

Problems, issues and boundary conditions

AAUPC started its activities in 1992 and aimed to offer graduates support in job placement and career development. UPC Alumni, established in 2011, is a new integrated structure that replaced the former. However, it is offering a similar service taking advantage of the knowhow of the highly experienced staff of the former AAUPC.

The staff of UPC Alumni are directly reporting to the Vice Rector for Institutional Relations of UPC. To overcome the missing link with university and institutions or companies outside university, the director and president of UPC Alumni are participating in the management bodies of UPC. These are senior managers of companies related to technology, innovation, architecture or engineering. Their experience, strategic vision and value-added contacts allow to reinforce an already professional structure, with a strong focus on projecting UPC Alumni to institutions and companies. The new structure allowed to launch the new Career Service and "Borsa de Treball". Despite budget constraints, UPC Alumni manages to carry out its activities and career development services. This is also attributable to several companies and professionals either working in favor of university or interested in the potential of UPC graduates.

Goals and strategic objectives

UPC Alumni is offering services to graduates and people who are or have been involved in the university. Its main objectives are enhancing their sense of belonging to UPC and offering services and resources that facilitate interaction and the ability to develop new professional and personal relationships.

And more concrete:

- To facilitate the exchange, sharing of knowledge and experience of members of the UPC community;
- Provide community services related to training, career guidance and employment, entrepreneurship, sport, leisure and culture;
- Facilitate interaction between members through clubs, promotion meetings and social networking.

UPC Alumni is relying on the support of UPC, qualified professional staff in career counseling, coaching and vocational guidance and the loyalty and support of graduates and companies appealing to UPC Alumni. Also the demand for engineering graduates is an important factor for UPC Alumni, although UPC has been able to build and maintain a strong reputation among employers.

Improvement possibilities

In the future UPC Alumni wants to improve the quality and diversity of its services and activities, for instance by organizing career guidance activities with high added value. In this way, UPC Alumni wants to distinguish itself from the former AAUPC. Other issues to address in the near future are the following:

- Promoting UPC Alumni to students and alumni in terms of its registered members, increasing the number of people taking part in various (orientation) activities;
- Organizing new activities for alumni and graduates by theme of interest or by their respective UPC school, strengthening professional networking;
- Organizing a single job fair for all UPC graduates and promoting it to companies;
- Introducing and linking students to partner companies and gaining the benefits of UPC's strong reputation among employers.

3.1.2 UPC Schools

Problems, issues and boundary conditions

Goals and strategic objectives

In the first section of this report it was already mentioned that UPC is composed of various schools. Each school is involved in job guidance of its own students.

Improvement possibilities

Currently each UPC school has its own independent, but often similar, approach towards the promotion of their students. In their contacts with companies, there is a lack of collective approach and this causes loss of efficiency as each school is setting up its own partnerships, sponsorships or new projects. Other schools are managing outsourced job boards through professional associations.

In the future, UPC could introduce a portal where companies can contact one or more schools directly for cooperation agreements. This would benefit both sides, the university as well as companies without UPC schools losing their authenticity. Another possibility for the future is a direct involvement of UPC Alumni as to provide support to the UPC schools in orientation and career development activities. The staff of UPC Alumni hold a certain expertise that needs to be shared among the schools and applied.

4. Politecnico di Torino (POLITO)

4.1 Internal agents' context information

4.1.1 Stage & Job unit

Problems, issues and boundary conditions

In 2002, the Stage&Job Unit of Politecnico di Torino was established in order to create a central office dealing with the management of internships.

At that time the government was urging for universities to create central structures dealing with this subject. At Politecnico di Torino, multiple actors were involved in the management of internships. However, due to the lack of a central structure to whom students and companies could refer, the following problems occurred:

- Dispersion of information
- Poor communication towards students
- Inefficiency, fragmentation and significant waste of human and economic resources

As universities could play an important role in supporting students and graduates in the transition from school to work, the Italian government started to support universities in this matter. The ultimate goal was to increase students' employment opportunities and to create relations among all territory actors dealing with these issues.

Goals and strategic objectives

The main goals of the Stage&Job Unit of Politecnico di Torino are:

- Internship management: matching offer and demand of internship positions, managing paperwork, monitoring of internships;
- Placement activities: increasing the employability of students and graduates (e.g. matching of job positions, career days, on campus events, support to companies for employer branding strategies);
- Orientation and career counseling (e.g. thematic workshops, individual support on CV writing, interview preparation, job research, work contracts).
-

Improvement possibilities

The main plans and strategies for the future are:

- Improving the follow-up of internships, the unit's monitoring capabilities, examining the effects on employment outcomes (both in short and long term);
- Improving the visibility of the office (internal and external) and the promotional aspects by the use of new media too;

- Increasing the synergy with other units of Politecnico di Torino in order to organize combined activities;
- Establishing medium and long term partnerships with companies to develop more complete and structured activities;
- Maintaining and developing networks with other local, national and international subjects;
- Developing more specific activities according to the various university courses.

4.1.2 Incubatore di Imprese Innovative

Problems, issues and boundary conditions

In 1998 a feasibility study sponsored by the Chamber of Commerce and Politecnico di Torino, conducted by COREP, revealed how the Torino area and the technological university were a potential hotbed for the creation and incubation of enterprises. The local industrial context, the strength of the technological university, and the socio-economic situation in Piedmont represented the perfect framework in which to insert a university incubator.

In 1999, Politecnico of Torino, the Province of Torino, the Torino Chamber of Commerce, Finpiemonte, the City of Torino and Torino Wireless Foundation founded the non-profit joint-stock consortium (S.c.p.a.) called I3P. Now the Innovative Enterprise Incubator of the Politecnico di Torino, is the main Italian university-based incubator and one of the leading incubators at European level.

Goals and strategic objectives

The mission of I3P is to promote the creation of new science-based firms with high-growth potential and more specifically, to:

- Provide consulting services during the enterprise creation process;
- Manage a network and an high-profile marketplace involving entrepreneurs, managers and investors;
- Provide a location to enterprises in order to create reciprocal synergies.

The activity of I3P follows the global strategies of the Piedmont region, in order to sustain research, technology innovation and new entrepreneurship. The Innovative Enterprise Incubator of the Politecnico di Torino is open to:

- Students, researchers, faculty members from Politecnico di Torino or other research bodies;
- Enterprises who want to create spin-offs for the exploitation of research results;
- Anyone who is interested in the creation of a knowledge-based firm and could take advantage of the proximity of Politecnico and its Cittadella.

Improvement possibilities

Last year I3P launched an incubator dedicated to consumers digital projects, such as portals, e-commerce, social networking sites, web and mobile applications.

Figure 13 - Overview of creation and boundary conditions for the internal performing agents per higher education institution.

INSTITUTION	PERFORMING AGENT	MAIN ISSUES	RESPONSE
IST	OEIST	<ul style="list-style-type: none"> • Lack of structured and organized information about graduate employability • Dispersion of information and irregular periodicity of surveys • Difficulty creating time series and longitudinal analysis 	<ul style="list-style-type: none"> • Organize available human resources with knowhow and skills on the subject and formalize a structure dedicated exclusively to employment issues
KU Leuven	Student Employment Service	<ul style="list-style-type: none"> • Increased number of students, bringing new responsibilities • Issue of equal access to and participation in higher education for all students 	<ul style="list-style-type: none"> • Creation of new professionalized services to manage new responsibilities, such as a vocational guidance service • Offer (im)material support and help students eliminate financial constraints, for instance through student employment • Offer special attention to specific target groups such as impecunious students, international students, students with disabilities,...
	Study Advice Service	<ul style="list-style-type: none"> • Tradition of providing tutoring services for incoming and first year students 	<ul style="list-style-type: none"> • Creation of a new service guiding students during their entire graduate career, until their transition from education to the labour market • Taking a different approach for future and incoming students (individual) and actual and graduating students (individual and collective)
	Student Association	<ul style="list-style-type: none"> • Business relations activities were initiated by the Faculty 	<ul style="list-style-type: none"> • Creation of a student association unit focused on business relations, being the only responsible actor in this matter
UPC	UPC Alumni	<ul style="list-style-type: none"> • Lack of internal structure providing job placement and career development services • Implementation of a new structure and service without losing continuity • Lack of direct link with university and institutions and companies outside university 	<ul style="list-style-type: none"> • Incorporation of the knowhow and experience of the staff of a former association in a new integrated structure offering a similar service • Participation of the director and president of UPC Alumni in the management bodies of the university, also providing the link with companies
	Schools of UPC		
POLITO	Stage & Job unit	<ul style="list-style-type: none"> • Dispersion of information • Poor communication towards students • Lack of efficiency and efficacy concerning human and economic resources 	<ul style="list-style-type: none"> • Create a central office/structure to improve communication and to make the best possible use of the available human and economic resources

INSTITUTION	PERFORMING AGENT	MAIN ISSUES	RESPONSE
	I3P	<ul style="list-style-type: none"> Local potential/framework (Torino Area and Technological University) for creation and incubation of enterprises 	<ul style="list-style-type: none"> Creation of a non-profit joint-stock consortium. Potential analysis and creation of a suitable structure to enhance the identified potential

Figure 14 - Overview of improvement possibilities for the internal performing agents per higher education institution.

INSTITUTION	PERFORMING AGENT	MAIN ISSUES	RESPONSE
IST			
	OEIST	<ul style="list-style-type: none"> Widespread dissemination of information concerning IST employability performance Adequation of methodologies to recent labour market evolutions 	<ul style="list-style-type: none"> Integrate social networks in information sharing platforms on employability Development of new information processing and collection forms and methodologies Organize periodic events (conferences, seminars, informal get-togethers, etc.) and launch the half yearly Journal of Graduate Employability
KU Leuven	Student Employment Service	<ul style="list-style-type: none"> Continuous changes in labour market regulations Evolution from face-to-face counseling to an online service available 24h a day Loss of efficiency 	<ul style="list-style-type: none"> Consult policy makers for improvements or modifications of existing or future legislation with regard to student employment Develop a new database and an online counseling service for all actors and stakeholders, extending it also for a growing group of international students
	Study Advice Service	<ul style="list-style-type: none"> Increasing number of contacts with students Lack of cooperation with (academic staff of) faculties 	<ul style="list-style-type: none"> Introducing online tools where students can easily make an appointment Improving the cooperation with faculties (through facilitation, professionalization)
	Student Association	<ul style="list-style-type: none"> Increasing demand from students and companies Inadequate human resources while demand has increased Inadequate infrastructure, some events have reached maximum capacity 	<ul style="list-style-type: none"> Recruiting more student members for the business relations unit Consider a new collaboration with the Faculty to tackle logistical issues and infrastructure
UPC	UPC Alumni	<ul style="list-style-type: none"> Need for publicity for the new structure 	<ul style="list-style-type: none"> Promotion of the new structure to students and companies, offering better services and increasing the diversity of the services and activities
	Schools of UPC	<ul style="list-style-type: none"> Lack of collective approach of UPC schools 	<ul style="list-style-type: none"> Introduction of a portal where companies

INSTITUTION	PERFORMING AGENT	MAIN ISSUES	RESPONSE
		in their contacts with companies • Loss of efficiency	can contact one or more UPC schools for cooperation agreements • Involvement of UPC Alumni as to provide support to the schools in orientation and career development activities
POLITO	Stage & Job unit	• Room for improvements in terms of agent visibility and scope of action	• Improving follow-up of internships • Improving the visibility of the office • Establishing synergies & partnerships with internal and external partners (other Polito units, companies, etc)
	I3P	• Act as a consultant during the enterprise creation process • Need to consider, identify and to act on the current main business areas	• Oriented incubators (e.g. digital projects)



THE LISBON CONFERENCE

**Conclusions, Results and
Future Opportunities**

INTRODUCTION

The concept of employability has given rise to gripping debates over the last decades, in particular when Europe is facing major challenges, with daunting cuts and amid a serious social and economic crisis. The context of the tertiary graduates takes on particular relevance, especially looking at the European perspective of unifying higher education and labour markets. Accountability to society, the economic and social value involved in the production of a tertiary graduate hinges, to a large extent, upon the ability to ensure that the students, following completion of their basic education, have the right skills to enter the labour market and preferably in their fields of expertise. This momentum, initially thought from the university perspective, was based upon the need to involve broad sections of society and therefore ensure inclusiveness of the FOLLOW project.

The organization of a space for presenting and debating ideas associated with employability has always been one of the pillars of the FOLLOW project and a working group was set up exclusively for that purpose. The issue of employability is an important and differentiating factor to the FOLLOW project. Without neglecting the importance of the theoretical debate, which has been sufficiently thorough, it is now critical to focus on the empirical method and promote direct contact and action with the measures that have been implemented and with its outcomes and realities. The Work Package P1 (WP1) has been carried out in this regard, in particular an in-depth study of the reality and the objective measures of four reference Universities at European level with the CLUSTER network, which includes 12 leading S&T universities. It is known that there are some methodological constraints and that the deficiencies of a reduced universe of universities are evident but the outcomes and similarities suggest the future extension to other institutions (FOLLOW 2) will show that these similarities are still present in a broader universe. This is our major goal, i.e., to make the work better and more comprehensive, which is just at an early stage and must be long-lasting and resilient.



Figure 15 - Banner of the 1st International Conference on Graduate Employability

The 1st International Conference on Graduate Employability held in Lisbon on 11 and 12 October 2012 under the FOLLOW project was attended by speakers from different sectors of society, with different perspectives (even within each sector) and raised different questions and proposed lines of action. The first goal was achieved even before the event was held: the multi-sectoral, multidisciplinary and multi-ideological approach that is critical to visualize the phenomenon of employability in its different components and implications. These approaches were structured and organized through the definition of 3 large thematic groups that allow the main stakeholders to include the issue of employability (University, Labor Market, State):

- Managing Employability at Higher Education Institutions
- Through the eyes of the employers
- The role of the publicly-owned and non-corporate institutions

These 3 large groups cannot be dealt with separately and it is crucial to retain the idea that what is thought and discussed in one group always has a relation to and influences all other groups.

Managing employability at Higher Education Institutions (Discussion Group A)

Employability plays a key role in the strategic management of the HEIs. Recently these institutions have shown growing concerns with the structures that deal with the labour market, in tandem with the main activities involved in higher education: teaching, R&D and technology transfer and knowledge dissemination.

Universities are concerned not only with their students but also with the professional environment they will face. Nowadays, this situation is reflected by the fact that one of the key indicators in accreditation processes of higher education is the employability of their levels of study.

Through the eyes of the employers (Discussion Group B)

We can observe the link between Higher Education Institutions and the working life as being a circuit where HEIs are the starting line and the working life the finish line. The investment that students make over a period of their lives will eventually culminate in a professional career. Employers are seen as an absorbing side, as the ones with the key responsibility in terms of employment and employability. But, how do employers manage this responsibility and how do they balance it with their actual needs and capacities of employing HE graduates? In the present context of economic and social uncertainty where unemployment is rising, how companies relate to the most qualified workers that leave the HEIs?

The role of publicly-owned and non-corporate institutions (Discussion Group C)

It is incumbent on the state and public-owned to develop and improve the setting where the different institutions and actions that relate to graduate employability interact. The role of the State is a key variable when analyzing employability issues considering not only its role as policy maker and enforcer but also as an employer.

The state needs to find the best balance between its multiple roles while assuring that the universities keep on providing the country and its citizens with a public service.

THE CONFERENCE INPUT

The different perspectives and views, with greater or lesser technical or methodological support or greater or lesser empirical support, result from the experience that the stakeholders have in carrying out their responsibilities and allows us to analyze the points raised. Ultimately, this stock-taking exercise can be considered as a large scale survey addressed to experts in the different aspects of the phenomenon, not only in terms of employability, but also in related areas like Innovation, the regulatory role of the State in the economy and in the design of public policies for

promoting employability, the paradigms of business recruitment, among others. The experts' positions, roles and responsibilities are reflected into a set of extremely sound and relevant opinions for those who aim ultimately at improving and enhancing graduate employability and allows us to systematize a number of ideas not only to take action but also to guide future research.

The content analysis allows us to find points of convergence and divergence between the different stakeholders and to identify the critical areas, which may be encouraged to facilitate partnerships and real improvement measures among the stakeholders and also to identify areas that may hinder those partnerships. It is also incumbent on the FOLLOW Project and its partners, based on their experience and skills, to critically analyze the conference contributions, focusing not only on what was said but also on what was left unsaid. The level of commitment shown by the participants reveals that graduate employability is a relevant aspect.

It must be borne in mind that this section of the report results from a series of contributions and visions, not only with theoretical and empirical support, but also resulting from the pure debate and discussion in round tables and question-and-answer sessions with the audience. The objective was to resort to the wisdom and the knowledge of key figures involved in graduate employability rather than developing theories and methodologies. As previously mentioned, this document compiles a series of concerns and thoughts that, considering their origin, are extremely pertinent and valuable for future actions of nearly 40 speakers, and that in view of the momentum allows for systematizing a number of concerns that are in line with objectives of the European Commission for young people until 2020.

Finally, it should be noted that, in addition to the diversity of speakers' roles and responsibilities, many of them in key positions, i.e. CEOs of large companies (Banking Sector, ICTs, Energy, Consulting, Pharmaceuticals, etc.), Secretaries of State in office (Higher Education and Employment), former Ministers (Social Security or Higher Education), Presidents of Professional Orders, Presidents or Leaders of Public Administration Structures with competences in regulating or promoting employability and university experts with scientific merit in these areas.

CORE THEMES

With no expectations at the beginning and with a neutral position in relation to what would be discussed, it was possible to anticipate what would be the conference subject matter. Different views and converging and diverging opinions were presented but it is possible to identify a pattern in the number of concerns that cut across the different stakeholders. The search for balances between pedagogical demand and supply of the labour markets cannot rely exclusively on the employers and universities. There was a general recognition during the conference that the fact the world is living deep social and economic imbalances entails that the designed solutions be based on short-term factors and not on long-term factors.

Finally, western societies may enter a spiral of constant patching without ever firstly reaching the desired balance and, secondly, a situation that allows for effective and efficient defense in view of any new periods of economic and social unrest. In short, 5 core themes can be highlighted and their respective discussion sub-dimensions:

Figure 16 - Summary of the Major Themes Addressed per discussion sub-dimensions

Themes	Discussion sub-dimensions
Softskills vs. Hardskills	<ul style="list-style-type: none"> How to ensure that the programmes provide the skills required by the employers? Who is responsible for endorsing extra-curricular skills?
Current Situation (Influence)	<ul style="list-style-type: none"> Influence of public policies vs. social utility in view of public resource management Internationalization of graduates Innovation/technology – competitive markets (differences between means of production and means of design)
Structural Situation	<ul style="list-style-type: none"> Demographic and economic change lead to the growth of the so-called social areas The impact of the crisis is momentary and has major impacts on the employability of new graduates? Lack of technicians with middle higher education
Social value of higher education	<ul style="list-style-type: none"> Difference between a young graduate unemployed vs. non-graduate (what gap?) Bologna Process – has insertion accelerated? What are the impacts?
Pedagogical and scientific autonomy	<ul style="list-style-type: none"> To reduce vacancies without closing scientific programmes with lesser employability, usually associated with artistic and cultural fields Imposition of knowledge to the laws of the market or the other way round?
Promotion of employability	<ul style="list-style-type: none"> Presence of PhD holders in companies Lifelong learning: who should promote? How to adequate it? Responsibility for employment/unemployment: universities, state or businesses? SPIN-OFFS: shared social responsibility (should large companies promote spin-offs or just the universities or the State?) University role to create jobs Role of professional associations: formal representation in the structures that define curricula and programme accreditation? Believing for the job or preparing for the job?
Employability: Concepts and Monitoring	<ul style="list-style-type: none"> Production of common statistics/methodologies – public information (what and how – controlled by whom?) Conceptualization of employability: a reductionist or a broad concept?

The table below generally provides the stakeholders' concerns.

Figure 17 - Summary of the Major Themes Addressed per Stakeholder

Discussion Groups	Softskills Vs. Hardskills	Current Situation	Structural Situation	Social Value of Higher Education	Pedagogical and Scientific Autonomy	Promotion of Employability	Employability: Concepts and Monitoring
A	X	X	X	X	X	X	X
B	X	X	X			X	
C		X	X			X	X

The first perception we get is the confirmation of the complexity of the social phenomena in debate. The branches and associations are multiple and, consequently, the implications and actions can start chain reactions in such complex structure with implications in all stakeholders. One can easily understand some divergences and the dimension of the task of combining the needs of employers, public institutions and universities in a satisfactory manner to everyone. For instance the debate whether the main focus in terms of employability responsibility should lie more on the universities, by preparing graduates in a more adequate manner, or on the employers, by creating jobs. In spite of this debate there is unanimity in considering that there is an urgent need to converge universities and labor market and the public institutions should have an important role in this.

1ST DAY PANELS – PRESENTATIONS & DEBATE:

Research Developments



Given the different variables associated with the employability phenomena and higher education graduates employability in particular, each theoretical development must begin by the concrete and objective definition of its analysis field. When addressing employability is important to know what indeed one is talking about and what are you trying to address what using the employability concept. It is noticeable that there is a general agreement on how important this variable is in the debates concerning labor market and the role and connections of universities in those markets but one also verifies that the concept is used to address different issues.

To address employability performance of a Higher Education Institution is a different thing than to address employability that a graduate has. A deep reflection is needed in order to define this issue and it is something that needs to be present when one starts to address employability issues. A wide definition of Employability tells us that it consists in the ability of an individual to obtain, maintain and perform its job, being this the official definition adopted by the European Structure of the Bologna Process Follow Up¹⁰. According to its employability capacity, an individual will have more or less competitiveness in the approach to the labor market. On the other hand, the employability concept is often used to make reference of how many individuals are employed facing the total of individuals, a employability rate. A concept proposed by Professor Mariana Gaio Alves, which may help dealing with conceptualization confusion is the one of "Transitions", a process that takes up to a certain period and it refers to going from the academic context into the labor market context.

An issue which may be at the starting point of a debate concerning theoretical development is precisely the relevance of this subject and why is it present and high profiled in the political agendas and both European and local strategies. The subject of employability, in general, and graduate employability, in particular, has been subjected to various studies and it's a high profiled field of study within academic means, but the relevance and role that it's been having in the definition of policies and in a central position in the European debate it is something that has been gaining position in the last 10 to 5 years and such phenomena is partly explained by the problems that have been resulting from the labor market imbalance whose impact e social pressure demands more effective measures under the risk of making worse the social and economic problems assaulting Europe nowadays. Professor Walter Van Trier presented 5 developments which might explain the actual conjuncture:

- Massification of higher education, leading to a decline of the 'differentiating power' of educational levels
- Task-based technological advance, resulting in relative decline of both manual and cognitive routine jobs
- Transitional labor markets with an emphasis on mobility, flexibility and de-standardization
- Internationalization and Globalization
- Knowledge economy or the increasing emphasis on education and training as an important factor in economic growth

Summing up, these developments and general problematic can be enunciated by the following "*The transition from higher education to employment is viewed as a phenomenon that deserves attention, for graduation from a higher education institution is no longer a guarantee of a prestigious position and demanding job tasks. (...) It is obvious that transition from higher education to employment has become a complex process that requires substantial time and effort and often stretches over a long period.*"¹¹ (U. Teichler)

The proper conceptualization of this issue is a good and needed starting point to any work within this subject. In the scope of the FOLLOW project and during the 1st International Conference on Graduate Employability the concept of employability presented itself as an ambiguous concept and used with different intents. Concerning the needs of the FOLLOW project, it was not felt a need to limit the concept to something too restrict or strongly limited. During WP1 it was possible to identify different structures with different concerns employability wise, either at developing and perfecting

¹⁰ <http://www.ehea.info/>

¹¹ *Higher Education in Europe*, vol.23, 1998, n°4

professional paths monitoring techniques or either at promoting and offering professional internships that facilitate professional insertion or even promoting workshops to provide training for graduates and students to attain employability skills (In the sense of having the ability to obtain, keep and perform a job). It is possible to identify a convergence and union between the different approaches that build the concept of employability and that can coexist in a wider concept as long as we maintain an understanding of what we are addressing in a certain context.



In the scope of the Bologna Process Follow Up Group and according to employability conceptualizing already mentioned, Professor Walter Van Trier suggested 3 action areas where Higher Education Institutions can make important and relevant impact:

- **Preparation for employment** - Capacity of Education and Training Systems to equip young people with key competences and necessary motivation and understanding of the labor market
- **Transition from education to employment** - Capacity of Education and Training Systems to (create) link(age)s to employers and the world of work
- **Stay in employment and progress in career** - Capacity of Education and Training Systems to update and upgrade the knowledge and skills of workers

In terms of concrete actions performed at a European level, a benchmarking study solicited by the EU was made by the Center for Research on Lifelong Learning¹² (CRELL). On the following chart, a comparative insight about the performance, in terms of employability, by each teaching level, gives some insight about the major differences in EU Countries:

¹²

<http://crell.jrc.ec.europa.eu/>

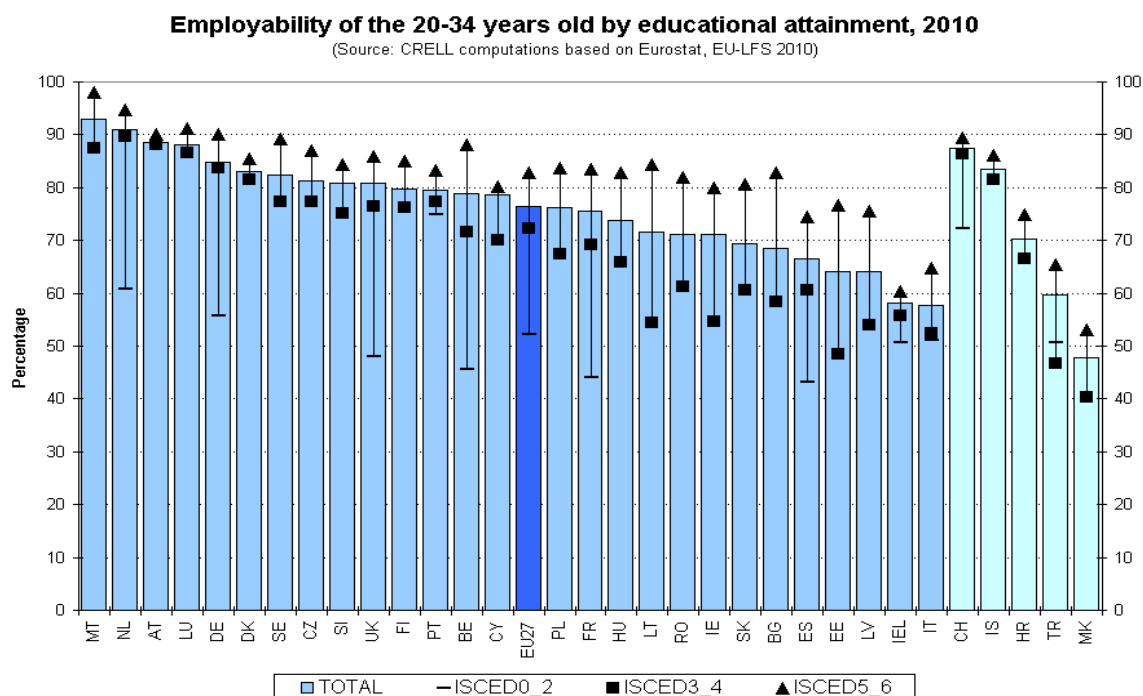


Figure 18 - Employability of the 20-34 years old by educational attainment, 2010, CRELL– EU-LFS

These figures are supplied by the EU Labor Force Survey, the only source for comparative data on these matters that the EU has available. The choice for a survey was due to the fact that the professional insertion is evolving in terms of its complexity and a simpler approach capable of producing comparative and equivalent data was needed. This survey resorts to the young employment rate within the same birth cohort up to 3 years after the conclusion of their graduation.

The one-dimensional usage of employability rates allow a “photograph” of the visible side of the structure, which according to the main mindset present at the conference, is not enough to guide strategies and policies. It is possible to broaden the work developed in this benchmarking to issues such as gender, ethnicity, scientific area, etc. The concept of “Being Employed” can be broaden and include variables such as “way of obtaining job”, “Time to obtain first job”, variables that can be linked to the concept of “Transitions” mentioned earlier. It is possible to add value with these variables; however it is necessary to keep in mind that the availability at a European level of comparative data contemplating them is scarce.

The process of collection and analysis of data must contemplate information needed to perform a conjuncture and structural analysis of what is influencing the trends and future developments.

There was still one final note to approach one of the more talked about issues throughout the conference, the convergence between the needs of the labor market and the skills provided by Universities. This issue was present in this panel by raising the question if the capacities and skills acquired are enough to match the capacities and skills demanded for the proper, effective and

efficient performance of a job. These needed skills were summed up in the following by Professor Walter Van Trier:

- **Professional expertise** - Knowledge, skills and analytical thinking
- **Functional flexibility** - Ability to deal with changes in a positive way
- **Innovation and Knowledge Management** - Innovative capacity and ability to implement ideas
- **Mobilization of Human Resources** - Mobilize their own competences and those of others
- **International Orientation** - Other languages, but also ability to deal with other cultures

The Role of the publicly owned and non-corporate institutions



The presence and voice of the Portuguese Government was made present through the Secretary of State of Employment, Dr. Pedro Silva Martins and through the Secretary of State of Higher Education, Dr. João Queiró. These are precisely the two State Secretaries which reflect the 2 main stakeholders in the graduate employability issue. The goal was to have the insight of the public structures and the State. Due to the fact that this conference was organized in Portugal there is an expected focus on the Portuguese reality also because the logistics of having public representatives from other countries were complicated.

The interventions focused on presenting some aspects that have been prioritized in terms of employment policies, transverse to several aspects of the labor market but with an important focus on the theme of higher education graduations.



To set up the context, it was made an alert in the sense of *"giving and additional focus to public policies, namely in the area of employment and realize if those same policies may or may not improve the conditions in which young, adults and the entire population may access in order to make, e.g., the transition between the dimension education and the dimension Labor Market"* (Pedro Silva Martins). In spite of the difficult conjuncture, there is the public recognition that the Portuguese labor market is unbalanced due to structural dissonances making it essential the task of developing a set of structural reforms that allow to rethink its functioning and follow a path of development and growth that allow Portugal to face with better resources the complicated social and economic conjuncture. This reflection is important at a wider scale, because it points out the need of a reflexive and critical action over one's own internal structures. It's in this sense that international comparing demonstrates that Portugal is a *"case of extreme protection of jobs already created. Obviously it is a valuable goal that was must point out, but it also need to be taken into consideration the possible negative effects that that valuable goal can have on the creation of jobs to young graduates who are seeking entrance into the labor market. It is needed to establish a balance between, protecting existent jobs and to create necessary conditions so that there are absolutely no inhibitions, from a corporate perspective, for the creation of new jobs which will be occupied in a significant and large percentage by the young. This is an issue raised when there are discussions concerning Portugal and when comparisons are made between Portugal and other countries, there are issues raised such as segmentation of the labor market or even precariousness. Recent data shows that 9 out of 10 job contracts in Portugal are fixed term contracts, obviously this statistic reflects, to a certain extent, the fact that the Portuguese economy is living a period of stagnation over the last few years which does not create a context favorable for the employers to embark on the adventure of creating job contracts for longer periods or without term, however it's important to keep in mind that the labor legislation such as the Portuguese one up until now was*

not the most appropriate to create such a favorable context. It is this shift of paradigm and the Portuguese government is seeking with the reform of the labor legislation which took place this year. A set of adjustments were made in sensible issues such as individual dismissal, but I feel that it will be very important to build the confidence of the employers specially from the time that the economic conjuncture is more favorable to a new form of hiring based on stable and permanent contracts and not in ways associated with precariousness, unstable contracts or even informal work. It is a change of paradigm that we are looking for to promote, it's an important reform developed within a context of an agreement and I feel it is a very important step in the structural change of the labor market in Portugal and it will have important impact in terms of setting conditions to create long lasting job for young workers and consequently for young and recent graduates." (Pedro Silva Martins)

Following the issues of correcting restrictions and structural obstacles to the profession insertion of higher education graduates, the issue of the role of professional orders was also raised. It is necessary to rethink, in collaboration with the Government, the appropriate restrictions to access some professions in the sense of protecting the interests of the individuals who use the services and products supplied and produced by those professions. However those restrictions must be thought in a way that allows eliminating barriers that are actually affecting the access to those professions and that way to create conditions to reinforce employability levels in those areas.

The professional orders also have a significant role regulating the labor market by alerting and acting on what can be considered a lack of focus in terms of the excessive variety of formative offer. The head of the Portuguese Order of Engineers, Engineer Matias Ramos, pointed out what he considers an excess of "sub-engineering" and consequently an excess of formative offer that the labor market does not need.

In another sense, one more oriented to direct action over the labor market, some objective measures were mentioned, namely financed by EU funds, which allow companies to hire unemployed individuals. In this domain it was mentioned the strategic program "Impulso Jovem" (Young Impulse)¹³ which consists in a large set of internships in the context of the reconversion of the Portuguese economy that is undergoing.

It is also important to have the perspective of the State Secretary for Higher Education from which there is the recognition that employability as a standing out variable in the strategic orientations for the government policies for Higher Education makes their action quite complex. In 2012, some guidelines were adopted in order to consider the levels of graduate placement in the labor market a relevant variable for courses to continue to exist and also for the possibility to increase the number of vacancies in each course. What is present in this action is a concern with the deficit between the formative offer and the needs in terms of qualified human resources and what kind of implications this can have in terms of developing the labor market and consequently the economic growth of the country. A government intervention at this level raises serious questions as for the radius of action of its regulating capacity: What will be the real efficiency of these actions and also raises issues on the debate on how far can an economist and market focus prevail over the knowledge society of production, maintenance and development of scientific knowledge.

¹³

<http://www.impulsojovemp Portugal.pt/>



The intervention of the State Secretary, Dr. João Queiró contemplated some of these issues, by placing the matter in the following way: *"The role of the government in these matters is highly complex and is linked to the high complexity of Universities and their mission, these issues don't have a simple answer and there are a lot of variables at stake. It is possible to conceive multiple approaches depending of multiple subjects, e.g. Area of study, level of study, state of the economy of a country (Conjectural or Structural). All these are aspects that influence the approach to the question and all of us can think easily in examples that illustrate this: Study field and study level; we cannot address a bachelor degree oriented for commerce the same way we address a master degree in classic Greek literature. We are not talking about the same problem therefore we cannot address the issue in the same manner. As for the state of the economy or in a broader sense, the state of development of the country (...) the issue of the mission of schools and universities is not completely autonomous of the that state of development"*

The interventions in the first section of this panel are relevant to point out some general premises, namely the one that the convergence e connection between universities and companies in order to potentiate employability rates, needs to consider a complex combination of institutional and context variables. There were also contributions in the sense of presenting strategies or objective strategic concerns. The need national economies have for competitiveness is unanimously seen as an essential factor for a balanced labor market and plain job situations and concerns and actions should be done in order to achieve such competitiveness. According to Dr. Jorge Portugal, representative of the House of the Presidency of the Portuguese Republic: *"We can only be competitive if we have the ability to produce innovative products which can compete with the finest products global market wise. Therefore we are talking about an innovative economy, based obviously in qualified human resources and an open economy, which goes beyond products coming in and out of our national market. We are addressing the issues of competences and talent and we*

are and what we are experiencing today is an arbitrary process between the more frail European economies (the southern ones) and the stronger northern economies that have the capacity to attract the more qualified human resources and more talented precisely to feed their companies and their structure of innovation and productivity. Let's then address the economies based on knowledge, the main question is how can we innovate more and better. The raw materials needed for this are talent, competences and human resources, therefore, universities, in this battle for innovation, for the increase of productivity, have a crucial role in rethinking and discussing the offer for human resources, not only at graduation level but also at higher educational levels such as PhD"

A society based on innovation is a competitive society with need for highly qualified human resources. It is a desirable scenario in the creation of a balanced labor market with the capacity to absorb higher education graduates. It is also a stage where there is space for the scientific knowledge can seek applicability and help to innovate; where the debate about the limitations on pedagogic and scientific autonomy, which can strangle the society of knowledge, makes no sense because that autonomy is a crucial condition for innovation and consequently competitiveness and economic growth.

Managing Employability at HEI



The insight of the ones who manage Higher Education Institutions and the presentation of already implemented strategies echoes the work developed in the FOLLOW WP1, but the approach on this panel was less focused on the practice itself and more on general strategic concerns at management level. It was with this focus that the general traits of the employability strategies of the management board of the Universidade Polit cnica de Catalunya (UPC) were presented by Vice-Rector Elisa Sayrol-Clos. It is important to point out once more that there was a concern, not only for debate, but also to present already adopted strategies and action courses which may stimulate and influence similar actions in other institutions.

It can be identified the strategic concern of maintain strong and structured connections to the different social and economic sectors, allowing so to guarantee measures for innovations and

economic growth, important condition to generate investment and consequently, new jobs. It is a concern with the long term strengthening of a network and structure which fosters total convergence between the main stakeholders involved in Higher education graduates.

UPC maintains, at the present time, connection to over 2680 companies, partnerships which are indeed a key factor for the economic and social progress of Spain and to lay the foundations for innovative, sustainable and responsible actions. Collaborations with companies focus on:

- Seeking new technological solutions
- To improve professional development
- To facilitate talent on the productive sector

UPC is also involved in national structures of promotion and improvement of employability conditions, namely CRUE ¹⁴ - Council for Deans of Spanish Universities – An organization with 75 public and private universities which has a mission to accelerate the convergence between higher education and research at an European level as well as the strengthening of the relations between university, public administration, productive sector and overall society. The mission is to coordinate proposals concerning students, scholarships, jobs, services, training, counseling, organization and participation of students in European initiatives. CRUE is structured in the following work groups:

- Internships
- career guidance and professional competences
- self-occupation
- occupational observatory
- mobility and occupation



14 <http://www.crue.org/>

UPC is also part of the Agency for the Quality of the Catalunya University System (AQU Catalunya)¹⁵, an entity which has the mission to guarantee the quality of the higher education satisfying every European standard of quality considering the interest of society in quality higher education. From the activities developed in this agency, the following stand out:

- Accompanying the transition of graduates to the labor market
- Higher Education graduates satisfaction with the obtained degree surveys

In 2000, the agency and 7 public universities agreed in the creation of a transversal process of evaluation of the professional insertion of graduates.

Internally, the strategic development of UPC concerning their graduate employability is oriented in the following axis:

- Interventions in schools, targeting students:
 - Internships for students (bachelor and master level).
 - Educational cooperation agreements.
 - Job lists in schools to incorporate job offers for students (educational cooperation agreements).
 - Business Forums organized by the students of the schools of the UPC (9-10 issues per year).
 - Exchanges through international mobility programs and cooperation
 - Support other initiatives of students: BEST student association (Business Case), IAESTE, etc.
- Actions developed by the Research Valorization Unit of UPC:
 - Fostering entrepreneurship in the university community, researchers, students, professors, graduates, helping to increase their innovative potential to lead to the creation of new businesses.
 - Support entrepreneurship through compulsory courses aimed at promoting the entrepreneurial spirit and skills
- Contributions from the PhD Program:
 - Fostering collaboration with companies to implement university research.
 - Training of competencies and skills related to management environments (through the Doctoral forums).
 - Support in the creation of companies through the Research Valorization Unit.
- Actions developed by UPC Alumni:
 - Career Services
 - Job Offers
 - Networking activities
 - Collaboration with Professional organizations
 - Promote Continuous Education

In general terms, the strategic plan of UPC for employability issues demonstrate the variety of themes and options that need to be addressed when the variable employability is given a stand out position in the management and coordination of a higher education institution

A different approach was present on the second intervention on this panel. Professor Sampaio da Nóvoa, focused less in objective measures and more and a critical reflection about how the employability theme relates to managing higher education institutions. He made some

¹⁵ <http://www.aqu.cat>

considerations about how the employability issue must be brought into the context of debate and management inside the university space. The first issue was in the sense of criticizing the reductive way in which the concept of employability has been used, a lot of times inside the universities themselves. It is necessary to be well aware the foundations of higher education, which are well defined within the great universities of the world. Universities should not have the main concern of responding to the immediate present nor should their posture be defined by short and midterm results, but in the long term impact they have in the development of society.

The position of Professor Sampaio da Nóvoa was in the sense of sharing ideological orientation and critiques to what are factors of reducing the importance of the real mission and essence of universities. The finger was pointed to a shift of paradigm in which the lack of employment problem main focus is placed on the jobseeker: *"Are you unemployed? It is because you could not develop your capacities"*. He raised the issue that this focus might be a defense mechanism used to differentiate social strata since the access to knowledge, now a more broad and massified, is no longer a trait that distinguishes more privileged social strata. The ability to possess certain kinds of capital (social, economic, cultural, etc.) and its combination is essential to define one's position in social structure and in the actual context the ability to obtain knowledge and cultural capital is more widespread, being the differences between social strata laying in other structural factors.



Given this context, the university needs to know exactly what is its mission and there are 2 essential axis that must be present in the reflection universities need to make about themselves concerning what is university and university training:

- Knowing the students – Before, during and after the course. This knowledge should be integrated in the reflection about higher education. It should be mentioned that, in terms of the FOLLOW project consortium, internal and external structures of accompanying the professional paths, with different levels of detail and coverage, were identified; demonstrating and reinforcing the idea that universities are focused on gaining this knowledge about what happens after graduation.
- Institutional Perspective – It is important to link what is inside to what is outside. Universities should have the capacity to anticipate and participate in the evolution of the professions and society so that they can respond from within in every possible front. The university must know how to respond to new social evolutions.

The debate about employability should not influence the actions of university and make it stray from its mission. Professor Sampaio da Nóvoa stated that:

"... it is in this perspective that the debate on employability should influence our actions e not to subordinate ourselves to the needs of the market (...) we should place our knowledge and graduates at the service of the new models of economical organization. It is this capacity of adapting that shows the best in universities"

On a final note, a story was told that exemplifies some of the mentioned concerns. His 10 year old grandson stated, speaking about universities: *"I don't care what course I take as long as it gives me a good job"*. In conclusion, he stated that a public debate which sets this mindset into a child cannot be a debate focusing on the right issues and aspects.

Summing up, the main idea is that the university should not adapt to what exists, but it's there to create what's to come. There should not be yielding to a utilitarian mindset, the reflection of about employability in a broad sense is decisive but it should not be turned into a weapon against the capacity of universal knowledge that universities have nor against the capacity to give students the ability to do something for themselves and for the ones around them.

Through the eyes of the employers



The perspectives presented in this panel were highly focused on the current labor market structure and the existing needs in terms of human resources and how this translates into objective conditions of labor market access for graduates as well as the level of self-preparation and how far are they willing to go to grab their opportunities. One concept pointed out in the intervention of HP Portugal CEO, Dr. Manuel Lopes da Costa, was “Meritocracy” meaning that good professionals will always have competitive capacity to make a name for them in the labor market:

“... but what are you afraid of? This is our future, there is always place for the good ... the ones who which are in this school (IST) and other relevant engineering schools will always have place. When I recruit, obviously I have specific criteria and recruit the ones I consider to be the best...”

“There must be a meritocracy (and a lot of times there is not), Portugal needs to get used to live with a labor force that is not afraid to be evaluated and that makes space for the best...”

In terms of opportunities in the labor market, the posture is that the labor market is no longer local but global. Relocation is now a reality and it must be present in the awareness of the ones seeking job. No matter how many local offers exist, they must get to know the differentiation in terms of offers at a global level and must be willing to search for the best offers and conditions global wise.



There is also need to show some concern with the actual conjuncture and structural situation. It is needed to be more innovative in order to correct unbalances which drive economies to the situations like the ones in the south European countries. Focusing on the Portuguese situation, it is needed to be innovative and assume once and for all strengths and weaknesses and to develop a plan focused on the strengths:

"... we have what we have and we need to improve it, so we must find activities that we can do in Portugal and sell them to other countries in more balanced situations...once and for all let's decide that this is a country for services and lets provide those services and create more jobs here ... why should those jobs be going to other countries? Let's create them here ... the people responsible for large companies in Portugal must assume the responsibility to maintain work posts in Portugal...if we let multinationals, given the difficulties of our economy, force us to fire people, we're in a tight spot, we'll end up looking at each other and say – we were so big and now we are so small ... what shame it's over"

This reinforcing and growth at an internal level will translate into best job opportunities and will allow for graduates to choose either between the local or global market. The search for best opportunities are not an exclusive factor when searching a job and to stay at your own area/country should be a possible option: *"... people can choose, either they make more money abroad or stay in Portugal with the comfort and support of the family, good food and climate but make less money ... what I need is the possibility to choose because I cannot be forced to leave due to lack of choice"*

Summing up, the posture as an employer should be focused on:

- To institutionalize meritocracy at all levels

- To assume responsibility for an internal forcing to avoid layoffs and unemployment and to fight for investment and this will translate into more employability.

The final intervention in this panel was made by Dr. Rogério Carapuça, Novabase CEO, and it focused on the way the recent social, politic and economic context have been influencing the hiring of higher education graduates and in specific, engineering graduates. What changed in the last 10 years:

- Low Visibility
- Market Instability
- Cost is always an important factor
- Significant increase in the offer of engineering graduates
- Innovation is an important driver for change

This new reality is reflected in an evolution of the requisites for obtaining a job, namely in the focus given to personal traits over technical skills. A Strong set of Technical Skills is a minimum requirement, not a differentiator, the attitude is the main differentiator therefore it becomes more expendable eventual hiring mistakes because the cost of opportunity of hiring the wrong persons is very high because you cannot easily change personal values and characteristics, while technical skills, with the proper support knowledge, can be learnt. The following table sums up Dr. Rogério Carapuça's analysis on the recent evolution of the labor market:

	Before	Now
Mobility	You would stay in your home town. Stability was a value.	Need for frequent travel abroad and even relocation on a permanent basis.
Change	Your career could be developed in the same technical area; Focus on specialization.	Your career will encompass several technological areas and businesses. Need for the capacity to adapt and learn fast.
Skills	Technical skills were the best "presentation card" for every engineering graduate;	Attitude, initiative, communication skills, problem solving capabilities and orientation towards objectives are valued at (at least) the same level as technical skills.
Creativity	Consolidated knowhow in a given subject was primarily valued;	Consolidated knowhow is only a basis for solving new problems in new contexts;

The focus being on the soft skills, it is important to point out what kinds of the traits and characteristics are considered important. In the perspective of Novabase, the Personal characteristics that matter are the following:

Interpersonal skills;

- dealing with people, not only with technology
- the capacity to work in a team
- negotiation

- communication and language skills

Problem solving capabilities;

- critical thought
- capacity for empathizing with someone's problems
- information retrieval and classification
- application of knowledge to solve practical problems
- capacity to innovate
- flexibility

Ethics and professional conscience;

- basics on company structure, values and behavior
- professional ethics and organization behavior

To reinforce the position demonstrated throughout its intervention, Dr. Rogério Carapuça summed up with the following:

"This reasoning and the statistics of major Portuguese employer (Novabase) show that relational, communication and motivational skills and abilities are of paramount importance in the hiring process of engineering graduates. Technical skills are no longer enough and are widely available. It is the attitude and the relational skills that make the difference. Universities have a clear role in the motivation and the active training of students in such skills not only through the offering of specific courses but mainly through the values they inspire and through the example passed on to the students by their teachers."

2ND DAY PANELS: ROUND TABLES

1st Topic – Managing employability at HEI



The issue of employability has gaining ground and weight in the way Universities manage and plan their activity, both in terms of supply and in terms of the level of business links and research. Unemployment among college-educated workers, the imbalances between programme supply and the areas lacking qualified workers build a scenario where Universities must equate this issue as one of their major strategic mainstays. The work carried out under WP1 identified not only the presence of exclusive structures that operate with professional integration, in terms of the promotion and/or monitoring, already evidencing an organizational concern in addressing the challenges. The first round table carried out in light of the discussions of the conference exactly aimed at searching and understanding the concerns and the challenges posed by the Higher Education Institutions and mainly finding out how to manage the pertinence and importance of this variable in conducting and planning an HEI.

The approach began by picking up on the issue of employability as a major variable in university management. The first idea is that employability is not a variable shaping higher education supply and, in this regard, the pedagogical supply must not be restricted for imbalances in the labour market. Higher Education is *"driven by social supply by the students. We can say that supply carried out by students is biased because they do not look for what gives them job opportunities and so this gives rise to imbalances between supply and needs"* (Pedro Lourtie). One of the reference issues that has gained ground at the beginning of the conference and, in a certain way, has been on the agenda because of the increase in unemployment in most of European countries (see Background information) was the University's enhanced responsibility in redressing that imbalance through constraints and restrictions to certain fields of knowledge in order to channel the

production of new generations of graduates to fill the gap of human resources existing in certain areas. The unanimous position adopted by the round table, despite the real balance problems, is that the universities should not give in too much or be dependent on the restrictions of the labour market. What is necessary is the existence of tools that allow all those aspiring to higher education be unbiased in relation to the labour market. This idea was theorized by the participants in the Concept of "Informed Choices"¹⁶. This concept relies on the idea that living in an open knowledge-based society, the choice must be made by the candidate to higher education and the possibility of having access to any field of knowledge. The internationalization factor also plays a relevant role in that the restrictions at national level may be overcome by entering university in other countries.

The round table clearly rejected a *strictu sensu* adequacy of academic supply to the requirements of the labour market. The pressure of an adequacy unusually wedged to the potential needs of the labor market, which is itself extraordinarily homogeneous, is not feasible when we are speaking about the employers' individual requirements based on their particular characteristics.



The main issue deals with the traditional mission of universities to keep knowledge alive and not to let certain scientific areas die, which may in virtue of the technological innovation, be decisive for the development of societies. The underlying idea is that by conditioning the educational offer for merely structural or short-term reasons, there may be serious implications on the knowledge-based society, including on the opening and free choice that characterizes modern societies. In this regard, Professor Eduardo Pereira said: "if a student is aware that the employability of a programme in Humanities, Philosophy or History is low but if he or she wants to pursue his or her studies in those areas and could be a person that will carry out a good work in those areas, just

¹⁶ The concept "Informed Choices" was described by Professor Pedro Lourtie of IST

because there are structurally higher unemployment rates, why should we create administrative barriers to the choice of that student? On one hand, the students' choice must be respected and informed, but, on the other hand, the university must ensure that there are not dying areas for short-term or immediacy reasons."

The idea that the concept of "Informed Choices" may contribute to a regulation and balance of the education offer and human resource needs relies on the quality of the means of measurement and production of the quantitative and qualitative indicators for measuring career pathways that may form the basis for the candidates and respective families to make that choice. It is necessary to implement, keep and improve the search for more accurate statistics indicators. Objectively, is necessary a rapid action to harmonize data collection techniques and ensure that different sources do not result in differential diagnosis. In the Portuguese case there are two public sources using different methodologies and whose contradictions shadows the debate and strategic actions of public policies. The National Statistics Institute and the Institute of Employment and Vocational Training using different measures and can be used as weapons of political debate according to the guidelines and requirements of government and opposition. This does not serve the national interests. In extreme it's the Italian case, presents a good proposal for standardization through the structure "Almalaurea" that produces statistical information about the performances of Italian universities employability in a methodologically comparable and equitable¹⁷. This model has already been tested in Portugal in the late 90's through the Centre of Graduates of Higher Education which aimed to assess not only the immediate insertion in the labor market, but also how it was developing a career, making a case for it collection of information to graduates after 5 and 10 years of professional experience. The aim was to provide feedback to HEIs to perceive how their graduates were entering the labor market and provide information to applicants in order to realize the opportunities which were at that time. The model was not followed and the data on employability are currently provided by each institution imposed by a legal framework that obliges to provide employability data of their courses of study.

It also expressed a concern with the evidence of rupture between public opinion and Higher Education Institution. The increasing graduate unemployment rates in countries such as Spain or Portugal and the low salary level of graduates raise doubts about whether it will be worth the investment in higher education, a situation that may exacerbate the difficulties encountered in relation to economic growth through the medium/long term for a shortage of skilled human resources. This deficit is already a concern in some areas, particularly technological and scientific where it is estimated that in the short term some countries, like Sweden or Finland, will have shortage of engineers. Migration of skilled technicians from the south to central/northern Europe, warn of an overall imbalance in the European labor market. Policies to fight and correct should include locations supported by a common European strategy.

This context raised the debate about the social value of higher education in terms of positioning according to the labor market and about the need to demonstrate that value through statistical data, comparing the unemployed with and without higher education degrees. In the Portuguese case, as demonstrated by Professor Victor Escária, the differential between unemployed with and without higher education is significant and with a favorable who holds a university degree. This question refers to the public perception of the value of higher education with unanimous emphasis in the roundtable that is necessary to pass the message of value and competitive advantage that is

¹⁷ More information about Almalaurea is available on the WP1 Report

to have a higher education level in the labor market, not only in internal market but also in internationalization. In the case of Belgium there is recognition of the social value of higher education both through increasing annual enrollment in higher education and the gradual shift in focus over the last decade by employers who now focuses on higher education graduates.

The economic environment and misuse of statistical indicators (or part of them) in the media may contribute to a removal of potential candidates of higher education when indicators show that this is indeed an asset (differential Unemployed with training VS without training). In terms of interventional measures, is necessary, especially in economies with problems and with the worst indicators in terms of unemployment rates, to implement actions of awareness and demonstration of social and economic value of vocational higher education, both at the individual level and contribution to the development of the knowledge society.

From a more cyclical to a more objective analysis on employability on the problems associated with the approach to the labor market was present at the debate. Was discussed the relationship of the job market approach preparation, or lack of, with employability. What is the real impact of not knowing how to prepare a CV, unaware of the structure and content of an employment contract, unaware of the rights and obligations under their respective legal frameworks labor, among others.

The lack of arguments due to lack of a reality that could lead to a newly graduated accepts poor remuneration or who simply cannot face the normal process of application? If so, here HEIs have a focus, objectives and direct action to work. This is an issue that should be taken into account in the analysis of this problem: What are the real consequences of the lack of preparation and extracurricular aspects of approach to employability in the labor market (both at the macro level of rates and numbers, such as the level of "employability characteristics")

How can universities manage training in skills that are developed and refined in the workplace? The role of universities in preparing extracurricular skills may be limited because they require the experience and context of the labor market to develop. In an analysis of the skills required by employers in job advertisements (performed within the project ATTRACT) in Portugal, it was concluded that the demand for soft skills was more prevalent and significant than technical skills. This raises the question whether the labor market may be demanding skills whose development is actually their competence? The debate followed towards mixed training responsibilities of these skills, and, according to Professor Natalia Alves also assigns responsibility to the universities on this issue: *"learn these skills if they are included in the pedagogical processes carried out among teachers and students"* including placing doubt on the validity of workshops that deep skills are inherent characteristics that can only be exercised through the educational process. According to this perspective Workshops are seen as an ad hoc solution and structural feature whose impact may not be significant.

Concerns about employability at the university should not constrain the point of training only to obtain immediate employment and aim to direct employment outside the university. The characteristics of employability should be structured based on the technical skills, the way of life that endows a person with certain intrinsic characteristics and the first professional insertion. In this sense the idea was discussed the importance of first insertion whose endowment in terms of skills and extra-curricular work tools "non-academic" is decisive and not suitable as a choice, may condition future employment and work of graduates. It appears that the idea that the powers "soft" academic and extra tools may vary from company to company and from sector to sector and this is

an idea that reinforces and puts the onus of skills development also in the professional insertion, not forgetting of course the role of the university, but without all the responsibility. "Mixed Training Responsibility"



It's interesting that future discussions include an analysis of the role of student associations in creating structures and mechanisms supporting employability, including training facilities and preparation, complement to the academia and labor market knowledge. Often it turns out that, given the immediate need felt, are the students who take the initiative to create them, only later the machine heavier than the university is able to emulate and/or absorb a similar function. The vision of the students in this roundtable has showed precisely this idea and presented several structures to support student employability on several fronts, from informative to formative. The representative of the Alumni Association of IST presented some of its own initiatives AEIST, Job Bank, which consists of a platform approach to student job vacancies and availability of these soft skills workshops and an Office of Promotion and Support of Entrepreneurship. The board was unanimous in considering the essential inclusion of students in debate and initiatives because they have a different contact with the issue of employability, a position of the "other side".

A general reflection on the role of the university in the current environment and on how university should regard employability, is that there is a clear responsibility in this regard but ultimately the resolution of the current economic crisis will not be resolved from universities, if the economy does not develop and grow there always be imbalances in terms of the labor market and hence the convergence between supply and demand will not be met. According to Professor Peter Lourtie: *"the context of the crisis means that unorthodox and relief solutions are taken, I think it is important to realize and the message I wanted to make was that we need to listen to our young people and realize their insecurities, difficulties and enable the viewpoint of skills, the ability to be*

an entrepreneur, to find your own work, bring them to know the value of work, bringing such people who are able to show how it works in the world of work, but give them the confidence to be able to face the world of work and give them better tools to face the world of work, and simultaneously convince them that despite everything, having a degree is always better in the view of potential work”.



Following the previous line, Professor Eduardo Pereira concluded with the following idea: *"the university will fail if thinks their aim is immediate and direct employment and training for direct employment at the output of the university, we must train for a long-term, the university will always have to keep training throughout life but there are things you learn at a certain age that cannot be learned in other ages, and then the university must no want to train people who have immediate job, sacrificing the future of these people."*

2nd TOPIC – Through the Eyes of the employers – “Soft skills / Recruitment / Training / Internationalization”



The approach between the HEIs and the labor market has been present on the European agenda on innovation, economic growth and employment. This presence is evident in the concern that led to *"guide the modernization of education and training in Europe in order to increase the quantity, quality and relevance of skills providing better economy and society"* in which at higher education level there are specific concerns, that include increasing the number of graduates, improve teaching quality and maximize the contribution of higher education to a stronger European economy capable of overcome the current economic crisis.

The second roundtable primarily focused on the vision of employers on employability of graduates (both the concept of rate/number as the characteristics of/ability to obtain employment). on the relationship between Universities and Employers, a plain view is sufficient to state the problem: The universities produce and transmit knowledge/skilled workers and employers/companies absorb this flow and channel it to their area of action, that ideally result in production of goods or services and consequent generation of wealth. The relationship becomes complex when considering the implications for the stakeholders, their motivations, objectives and goals. The university is a fundamental structure in the progress of scientific knowledge, development of a critical and reflective thinking, and despite concerns in financing that brings closer a more entrepreneurial mind, is not profit oriented. Subjects such as scientific autonomy and the transmission of knowledge were key issues raised during the conference by speakers from Institutions of Higher Education.

The relationship with employers becomes daedal when the business/market logic present in employers has specific needs that may not be compatible with the aforementioned fundamental

role of universities in the knowledge society. The business needs on market competition, are real focused on their respective realities and targeted to objective ideas in terms of recruitment. The absence of a measurement unit or regulation structure of this supply/demand dialectic will dig the gap between both, generating unemployment in the labor market needs unmet. It's central therefore, to both economic activity and knowledge society, to monitor and match employment supply needs. A harmonious adaptation requires the involvement of all stakeholders, including professional orders and union trades, public entities, student associations, as well as Universities and Companies.

This regulation becomes even more complex when we consider the unpredictable and unbalanced functioning of the markets where we can have overproducing or lack of certain goods and services in very short periods of time, making the markets self-regulation capacity very complex and consequently the regulation of the response capacity of the universities in terms of human resources (Bok 2003)

The objective needs and concerns manifested by the employers are, as expected, more practical and associated with a corporate focus over lapsing the needs and concerns manifested in the previous round table (Managing Employability at HEI). A good start for a more conceptualizing and abstract reflection consists in have a strong insight of the specific concerns that employers have and within this issue, the soft skills debate once again had a high profiled presence.

One of the more highlighted debate themes over the conference, the Soft vs. Hard Skills debate gained a more significant proportion within the concerns of the employers. The raising of this issue itself within the discussion of management and organizing the courses curricular plans results of the constant concern demonstrated by employers. The moderation of the round table solicited information about the recruitment processes and the soft skills were approached as the differentiator element in terms of choosing the right candidate. While not being despised and still being important, the technical skills are an acquired fact supported by the academic degree obtained and also as something companies can boost through training in working context. The concern with the soft skills denotes a bigger concern with the interpersonal relations and with the contribution of the intrinsic characteristics of the individual for the development of its function and the company. The technical know-how is no longer the biggest concern, depending on the reputation of the Higher Education Institution, the employer has guarantees of the technical skills of the candidate and shifts focus to the attributes that potentiate the capacity to interact effectively and in a harmonious way with other individuals, capacity that is an important contribution the individual has for the success of an organization.

The interventions about recruitment demonstrated these concerns. Tekmik CEO, Dr. João Barata expressed the following vision:

"We attribute even more importance to the so called soft skills of the individual in terms of professional path and in that he sees himself doing next. Responsibility and autonomy are some of the things that we value the most and it's perhaps one of the main critiques I point out. What I see in recent graduates is that the time variable is not very important to them (...) the people sense of responsibility is very valuable to us and one of the things we consider more important"

In the same sense, Hovionne CEO, Dr. Peter Villax, manifested similar concerns:

"... I am interested in a person who knocks me out of my chair or the potential to knock me out of my chair in a couple of years. I want someone out of the box, someone who surprises me, thrills me and that has ideas and plans



Another major topic was the connection between universities and employers, partially because it has links to the soft skills issue in terms of where is the responsibility of each in the training and fostering of those skills. Some experiences concerning partnerships between companies and universities were mentioned, such as professional internships, protocols, etc. These were mentioned as a good tool to approach recent graduates in terms of first job. In some cases those experiences may result in effective job for the graduate: *"I always seek to hire engineers who already were there in internships ... it is a test to his capacity to work there and it minimizes the risk of hiring"* (António Vidigal, CEO EDP Inovação). The risk of hiring the wrong person was an issue raised in other sections of the conference and it can relate to the issues of overprotecting jobs acting as a barrier to hiring people. Being the companies oriented for profit, the recruitment of the right human resources needs to have a special concern with who they hire in order to guarantee that they don't create entropy in the company activity. On the other side it is up to the universities to seek the means to potentiate and increase the levels of employability of their cohorts, as demonstrated by the conclusions of WP1 in which one can verify the strong presence of structures oriented for the link. One of the ideas manifested pro-convergence was of the symbiosis between companies and universities in a way that allows Universities to transmit what indeed is necessary to know to perform a job in the most effective and efficient manner in the companies. This can be made through internships, which might be an initiation to professional life but it is by definition also a process of learning which allows the intern to complement his academic training with labor context training. Following this idea, it was also mentioned the idea of having a mixed teaching

staff with external professors from companies in order to provide in university context, what actually is done outside and in professional context.

Another theme raised refers to the graduates and their availability and capacity to have a broad action radius in terms of professional career. The current configuration of labor market and the current political, economic and social conjuncture prevents that there exists a balance between the formative offer and the human resources deficit in some areas (e.g. Architecture is an area struggling with the labor market in every country of the members of the FOLLOW project consortium). It was raised the issue that graduates should have more availability and flexibility to enlarge their professional horizons and accepting and being able to perform outside their academic training.

Following the issue of the unbalanced labor market and the broader action radius of the professional career of graduates, the theme of internationalization and the impact of a global world were also raised. The position of employers towards this issue is quite positive and the idea of seeking opportunities in the global labor market is seen with good eyes. There is not a concern with the so called "Escape of Brains" or a lost public investment in highly qualified work force, on the contrary, the internationalization of these professionals can foster the business relations and investments because the companies operate with identities and work processes that are not nationally centered but are global and wide. Summing up, the idea is that the internationalization of qualified human resources increases the possibilities to potentiate investment in the sense that decisions are made based on visions and detailed insight of the global reality, for instance, a Spanish top manager working in Germany can be a voice and ambassador of his country in order to captivate foreign investment.



There was still time to debate the role of the society of knowledge in the development of the economy and what the impact on graduate employability is. The premise was that all economies

based on knowledge need a high level of training and if there is not guarantee of equal access to this training by all social stratum, there will be an exacerbation of social inequalities and asymmetries. It was well present the idea that not only there should be a balance between formative offer and the needs of the labor market, but also a balance concerning the access to formative opportunities allowing all individuals the capacity to compete in a fair way in the current economies.



To conclude, the vision employers have of graduate employability phenomena is supported in the specific needs they have and demand in order to satisfy the human resources needs their companies have and also in a conjectural and structural analysis of the political, social and economic current situation where there a double responsibility in two fronts. The first responsibility is within the graduates who must have a capacity to attain employability skills and flexibility in approaching the labor market, only this way they can be competitive within the labor market. On another front, the main idea is that all measures to potentiate the growth of employability must be accompanied by measures to make the economy grow, which is the only possibility to create more jobs, being the large companies, as larger employers, given an important role as long as they are solicited by public entities in order to establish protocols and strategic partnerships.

3rd Topic – The role of the publicly owned and non-corporate institutions



Moderation started the discussion approaching the discussion of structural unemployment and also the role that technological innovation cycles can have in this phenomenon.

Considering the political and economic environment, panel moderation focused on the issue of employment policies in times of crisis combining with discussion already taken on the conference. This topic can be seen in several ways. In a more focused, looking at employment public policies and vocational training or in a broader level considering employability connections to other issues such as economic and fiscal policies, research, investment, etc.. It is important to retain that analysis of employment cannot be one-dimensional and must always be framed to the current situation, being the essential option to find the right path in terms of strategic planning and action. A comprehensive view should include considerations on economic, demographic and global variables. We are living a age of complexity, conjectural analyzes that don't comprise the structural environment in which we live will not find the correct path.

A starting point for this analysis, which was highlighted in the debate, is the identification of a characteristic of the recent developments of the economies, the shortening of cycles of investment related to technological innovations. Among investment, profitability and replacement this situation leads to disruptions in economic activity, with repercussions on employment level of occupations in decline, professions upswing in its expression in society, changing significantly and increasingly in shorter periods the constitution of the labor market. These dimensions, economic and technological, regardless of its prevalence, should not be the only ones to be included in the equation. Demographics was also mentioned as an outstanding dimension, especially considering Portuguese society in and in particular English and Western societies in general, that are in an accelerated rate of aging, with a shortage at birth with multiple implications at the level of decrease

skilled human resources, and with implications on the configuration of the labor market in terms of new business opportunities and market sectors, that may arise at the expense of other sector emptying. Take the example of geriatrics and biomedicine as growth areas facing childhood education and training whose market shrinks.

These examples and warnings for the combination of economic, technological and demographic dimension is a display of the public authorities multi-analytical vision (other stakeholders as well) that is needed to get effective measures of economic growth and thus create conditions for improving employment rates.

This vision must always be border free in trade and competitiveness. Therefore there is not a local competition, ultimately Portuguese, Belgian, Spanish, Italian, etc., companies are competing on a global scale, with implications for competition for variable costs. This is a highly complex issue, since some sets of parameters are not likely to compete with Asian countries, which have to do with conditions and standards of living in Western societies and that are a deeply unequal competition for businesses. With globalization comes the business delocalization to reduce costs, marketing, design, bets on specific ways to be in the market to defend ourselves against this type of competition. The footwear sector is Portuguese example, because it was known to be low-level and technological intensity and exported to Russia in the 80s with little qualification requirements at the very design, based on the system of subcontracting, experienced a profound shock in the 90s and modernized, introduced the design, marketing, introduced own brands that are the second most expensive in the global market. This may be the way that other industries can also go to ensure competitiveness in the global market.

Employment is associated with these matters and naturally flows into many problems that arise here. Naturally, the public policies for employment and training aim to reduce the impacts of the situations mentioned above. The Portuguese public service employment and vocational training - Institute for Employment and Professional Training - develops a set of measures and instruments, as apprenticeships in order to facilitate the integration into working life of those who end their qualification processes or training; develop other incentives for businesses to create jobs like giving incentives to companies to employ unemployed due to certain structural or permanent bond, recognizing in those companies something that has a social concern and should be rewarded, also at the level of professional training, interventions are developed is the level of initial training for young people adding the needs of the education system itself, also active in training, towards upgrading skills and contributing to the competitiveness and productivity of enterprises, adult education, which can ultimately improve not only the competitiveness of young graduates in the labor market, but also to create better conditions for the needed workforce to sustain a strong economy supported on innovation and knowledge.

The role of higher education and the matching of the skilled labor force to the actual structure of the labor market are mandatory conditions to overcome the issues of structural unemployment, but what is the role of the university in such context? Professor Eduardo Pereira has intervened at this level, and initiated through a contextualization/explanation for the current situation. The ideal that emerged in post-war about a society of full employment based on technological development that would provide a lifestyle freer and less work oriented eventually did not materialize and now are Western societies (Europe and United States) to face serious economic and structural problems at the level of the value of work. It was thought that the level of knowledge development in these societies could ensure the production of ideas and knowledge while in other less developed

societies, in terms of knowledge, production would focus on implementing tasks, taking to a loss of know-how at the level of production means leading to an inability to conceive. The growth and production of jobs have to maintain not only conception industries but also the production industries. This context can provide guidance to governing bodies on their action that can pass not only from adaptability to the rules of the game but also scope to change the rules of the game in their favor. The structuring of a productive market based on conception industry has consequences for the design of the training offer. In the Portuguese case, there was a very large focus on knowledge in the conception and theoretical production that allowed losing an intermediate sector of production in implementation, support and maintenance, whose responsibility is also in universities. Structurally this is dangerous for the placement of graduates in the labor market as it is producing the same kind of professionals, creating a sizeable mass of qualified human resources but at the same time very homogeneous. In addition to this result, there are also problems in governance and management of public money, governs are investing in something whose labor market is unable to absorb and give feedback. The approach of the University placement of graduates in the labor market and recovery of employment, launched the idea that the burden should not be on the side of universities, it is not the university role to create jobs, but train people who the productive structures of the country can absorb. Therefore the university should not have responsibility in this matter but public institutions and business. Universities provide people for employers, that creating employment and together with public policies and actions help creating economic growth and productive activities so that resources produced by universities can contribute to the development of their country. The role of the university is to be producing resources to help development. In short we can say that university is not responsible for job creation. This idea was supported by the Portuguese case where there is a wide acceptance of higher education graduates in the European market, and as such, the main cause of imbalances was pushed into the labor market, the policies and strategies for economic growth and employment generation.



Concerning the issue of the responsibility and role of the university in improving employability, Dr. Octavio Oliveira stated:

"Universities must have a great connection to businesses, it is important that the curricula of all educational institutions, including the Institute for Employment, be constantly updated, the perspective I have is also that institutions should not rely solely on the knowledge skills but also to know how to be, increasingly important skills for achieving employability in the job market. There are social and transversal skills that everyone should be aware. And finally say, my conception in relation to the university system, with the dichotomy university/polytechnic that I absolutely agree, Portuguese society separated from economic activity in this field, but my vision is not that the system must be exclusively market-oriented and to work, it must also have the university system connected to the research, raising the frontiers of knowledge, and therefore there are other plans and objectives beyond the labor market. Lately put up a strong emphasis on employability by their absence, but I think it should not be neglected other concerns. As the role of the Arts, we tend to say that face unemployment that exists in the social sciences should be rethought investment that is made in these areas, but this perspective must be to adequate resources, and not finishing them, Mastering the Arts, Music, artistic expression is fundamental to a company and a university system, even adapting their resources to such Social Utility must continue to have answers to these areas."

Summing up the debate, Professor Eduardo Pereira reflected the following way:

"The university should not look at employability as a first job, but as a person's ability to win the first jobs, keep jobs, creating jobs, providing skills for our students to take initiative, not forgetting also things that are considered within incidental and somewhat unimportant (Theoretical Physics) a few years later take huge steps and are fundamental to high technology mobile phones or for the diagnosis elements and X-Ray, or whatever, so we cannot be focused on the immediate people leave here with 23 years, will have a very long career and we should give them some training that can only get at this age and not in another age and allow them to return to school to be upgraded, but have capacity to respond to new problems that will appear over 50 years of career, not only to the problems we are having at the moment, hence the social utility has to be not only generate immediate value but ensure that in the future will generate value, they can keep knowledge often not considered important but gains relevance with time gain. Regarding the relationship with the professional orders, my greatest experience is not from the Engineers Order side but on the side of the University. The EO had a great virtue that was starting to make evaluations and accreditation of courses long before the public institutions, they were overlooking this matter and had a role on the side of the university I report very positive that helped us in the development of our curricula, and the criticism from outside is not always to be respected strictly but they are great source of information to be taken into account and improve our quality assurance systems. Unfortunately and agreeing with the Economists Order, the presence in the structures of Higher Education Accreditation eventually was reduced to an little intervening and advisory role. It is important that both the orders, such as business associations, like the rest of civil society have points where they can interact and define ideas for the university to absorb and improve their training".

MANAGEMENT & STRATEGIES | PRACTICES IN PROMOTING & MONITORING GRADUATE EMPLOYABILITY



This panel was dedicated to the partners of the FOLLOW Project and divided in to categories, mainly presenting the results of the first work package of the project and discussing the best practices identified in each partner country or school.

There is an overall solicitude to the effective management of the relations between the companies and the schools; this is translated in several forms, some with great involvement of the governmental entities, others much direct and objective.

The partners presented a set of practices taken place on their institutions that orbit around the monitoring and data systematization, professional counseling and training and finally labor market and company relation.

In the first case, monitoring and systematization of information, IST and KUL presented their practices and key indicators. In the case of IST the analysis of employment in graduates goes as far as 1998 when the first survey was applied, and had a positive evolution until nowadays, where the survey is applied to recent graduates and graduates with 5 years in labor market.

The methodological aspects worth overlook are, regarding target population: sampling frame, representativeness, response rate and sub-population analysis; regarding key indicators: waiting

time for 1st job, contract, and way to get the job, income and internationalization; and finally regarding information collection: primary/secondary date and the Nature of information gathering.

In the following picture we can observe the latitude of the target population of the surveys applied in IST, as well as some notes on the difficulties encountered.

4.1. TARGET POPULATION (2011-2012)					
EMPLOYABILITY	1st CYCLE	GRADUATES (not continue to 2 nd cycle at IST)	SAMPLING FRAME/ POPULATION	RESPONSE RATE	NOTES
	2st CYCLE	FINAL YEAR STUDENTS	1596	49%	<ul style="list-style-type: none"> • Small sampling frame • Course representativeness compromised
		GRADUATES	1 YEAR PROFESSIONAL EXPERIENCE	697	48%
			5 YEARS PROFESSIONAL EXPERIENCE	883	34%
			10 YEARS PROFESSIONAL EXPERIENCE	In development	In development
		EMPLOYERS	170	48% (13%)	<ul style="list-style-type: none"> • Outdated contacts (15%) • Less linkage to the institution • Hard to obtain good response rates
	3st CYCLE	GRADUATES	290	48%	<ul style="list-style-type: none"> • Lack of commitment from Employers • Indirect access to survey (Survey filled by a 3rd person) • Incomplete sampling frame (18%) • Population with different characteristics – Analytical focus on the course impact

The evolution of the key indicators is notorious, from 1998 to 2011, variable such as internationalization, number of job offers or a more comprehensive look at the income variable, was introduced during the process that now includes the following key indicators: Waiting time for first job, contract, way to get job, position, non-variable income, variable income., incentives, job offers and internationalization.

The surveys are flexible and adaptable to the different populations were the Recent Graduates surveys have a different approach and indicator than the 5 years professional experience survey.

The outputs from these surveys are presented in many different forms and used to build all types of materials and reports that help decision making for candidates course selection and managing structures of IST, like helping to curricular adjust or media reply with substantial data background.

In KUL the alumni career research focus on some key variables related to employment and working conditions, mainly the employment status, sector, income and working hours. Other variables are also monitored like the start and duration of job search, main reasons for recruitment and usefulness of degree.

Some figures on the participation in the Alumni Career Research can be stated in the following picture:

	Academic year	Population	Number of participants	Response rate
KU Leuven	2008-2009	3,261	1,337	41%
Faculty of Engineering	2008-2009	214	104	48,6%

The outputs of these surveys are organized by indicator and complemented with other alternative research, like the IE-net survey, that monitors the sector of employment.

For the future the KUL Engineering Faculty focus on increasing the offer of internships available for students, increase managerial and leadership as well as entrepreneurial skills of students and increase contact and interaction with employers.



According to the second topic, professional counseling and training, UPC, POLITO, KUL and IST presented some practices, in this case UPC describes it's UPC Alumni service. A service offered by UPC to its graduates with the main goal of enhancing the belonging to UPC and to develop professional and personal relationships.

This goals can be specified in the following specific objectives: To facilitate the exchange, knowledge and experience of members of the UPC; Provide community services related to training, career guidance and employment, entrepreneurship, sport, leisure and culture; Facilitate interaction between members through clubs, chapters, promotion meetings and social networking and Gather and visualize all at UPC existing alumni associations.

There are three types of UPC alumni members, UPC Alumni (graduates) UPC Alumni Premium (UPC Alumni that pay a fee to have access more specialized activities and services) and UPC Alumni Protectors (entities that support activities of UPC alumni paying a fee).

UPC Alumni also offers a Career Service, that include career counseling with individual support on decision taking, skill and competencies development workshops, conferences and discussions on career opportunities, professional mobility and mobility. This service also organizes visits to companies to find and identify new areas, new profiles and new working environments.

The Job Vacancies managed are exclusively for junior and seniors. The service provides assistance and support for companies regarding recruitment of people with technical profiles, information on international mobility programs and recruitment for national and international companies. The first edition of a Virtual Occupational Fair also takes place.

Entrepreneurship is also fostered by the Research Valorization Unit of UPC, with compulsory courses and entrepreneurship fostering.

POLITO Career Counseling Service has the main goal of "professional guidance of the individual by utilizing psychological methods especially in collecting case history data, using various techniques of the personal interview, and testing interests and aptitudes". Was born in 2011 and since then has carried individual meetings taken by work and organization psychologists.

This counseling consist of four central aspects, Helping individuals to gain greater self-awareness in areas such as interests, values, abilities, and personality style; connecting students to resources so that they can become more knowledgeable about jobs and occupations; engaging students in the decision-making process in order that they can choose a career path that is well suited to their own interests, values, abilities and personality style and assisting individuals to be active managers of their career paths as well as becoming lifelong learners in the sense of professional development over the lifespan.

In this counseling meetings there are the definition of the career path; identification of skills, abilities and strengths; identification of aspirations, values and professional interests; definition and consolidation of one or more professional projects; development of the necessary tools for self-presentation (writing a CV and letters of introduction); setting of a structured self-marketing plan; illustration of how to use the different job search tools; planning of these activities and monitoring of the results of the research.

The strengths of this service are the individual approach, that fosters a personal contact and a context-sensitive work, and the weaknesses are related to limited resources and limited beneficiaries. This service can be improved by providing a more structured, complete and continuous in time service.

In POLITO, the Stage&Job Unit works close with the Career Counseling Service and provides the link between the companies and the companies, fostering internships, creating courses that respond to labor market needs and monitoring employment issues.

KUL student association also provides services of professional and career guidance, like career days and workshops.

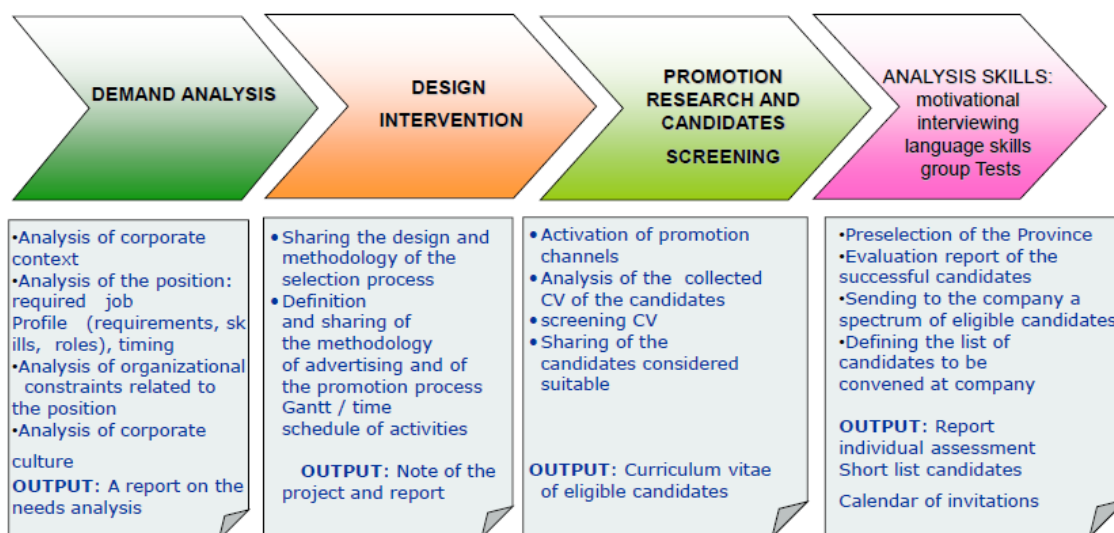
In IST the Transfer and Technology Office manages to help career development and companies relations as well as the intellectual property. The development of a Career development plan that includes some activities like a Career week, training workshops (cv creation, job search strategies, interview methods, negotiation and career management), jobshops and summer internships. IST gives to students scholarships for 2 sessions of career workshops.

Tecnico Career Sessions



In the labor market and company relation, there were several good examples presented in the conference. The region of Torino presented a service that matches the public and private sectors. This service is based on Employment Centers, which collaborate with University of Torino and POLITO, which provide pre-selection of candidates and supply of high profile job skills or specialized profiles to the labor market and companies in a multimodal methodology of selection and recruitment. Some of the advantages of this service is the flexibility and close cooperation between recruitment teams from both companies and Employment Center, customization of the professional integration with corporate methodology and business needs of the company; the definition of a research process and selection of tools analysis ad hoc for the Company, construction of a system of project monitoring; the continuous control and coordination management of the applicant for all the selection process; the reduction of indirect costs of logistics and secretarial; it's a pre-paid service without any extra charge to the Company and helps strengthening cooperation between public and private.

This service is organized in 4 stages:



This service works close with companies and universities and provides to candidates the ability to have direct access to highly skilled employment opportunities without area constraints; timely access to tools to promote research, ability to auto-nominate using different methods, support in understanding the requirements and evaluation of the requirements requested, orientation talk regarding active research, advice and support in the articulation of an effective cv, information on the how to search job opportunities and access to "High professional" database .



Companies can access the service in three modalities, Bronze, Silver or Gold, each one with different types of offering and complexity, and adequate to companies needs and budget constraints.

In this matter all partners described a Job placement service, which goes from virtual occupational fairs or tools to offices that have a concrete relation with companies.

In KUL the student association takes a predominant role in career counseling and labor market relations. The business relations unit organizes several events in collaboration and in demand of companies. Are example of these activities the BR-launch, the stage fair, job fair, job forum and interview days and panel discussions, among others.

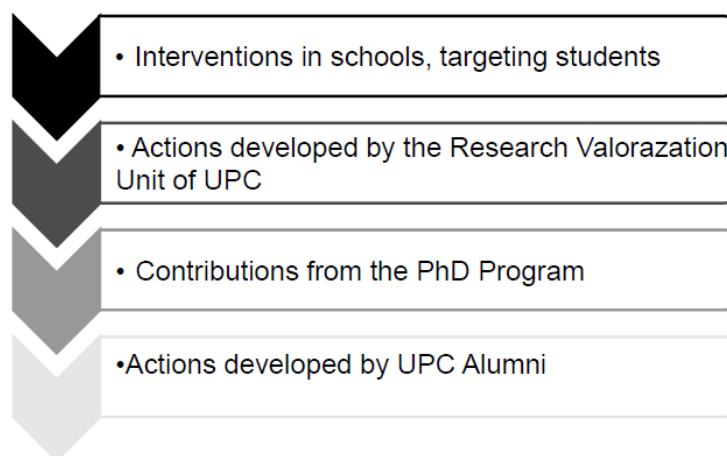
We emphasize the BR-Launch event, which combines a social activity with the companies and employment relations.

1. BR-launch: company presentations combined with a specific activity (e.g. golf courses, wine tasting)

- Main purpose: connect students and companies in an informal way
- Main audience: last year students
- Participants: +/- 100 students and 8 companies in 2011
- Response:
 - From students: positive, informal atmosphere in which students feel comfortable asking questions to companies
 - From companies: positive, approach is very much appreciated

UPC relations with companies and the labor market is framed in the looking for new technological solutions, improvement of professional development and facilitating talent to the productive sector. In this case UPC takes some strategic development among students that focus on:

Strategic development of employability among students and graduates of the UPC



The UPC schools also take actions in labor market relations through internships for bachelor and master level students, complemented by job listing in schools, participation and exchange with mobility and internship initiatives (BEST, IAESTE, etc.) and several activities taken by students like business forums.

In UPC the Research Valorization Unit also fosters the collaboration between companies and the university in research and investigation related employment.

Other contributors came from other High Education Schools represented in the Conference. The nature of the practices focuses, in general, on the same concerns. The systematic organization of data that allows schools to take decisions, the improvement and development skills and career counseling and labor market relations, focusing also in the preparation of students for the international labor market.

In general institutions gather company profiles and establish some collaboration habits, contact persons, graduate selection for job interviews, job listings, selecting and interviewing graduates to specific institutional requests.

Directed towards the students the activities are mainly of training and counseling, internships and job fairs/career weeks. In this practices the counseling on how to prepare interviews and preparation of the cv are generally stated.

The Paula Frassinetti School also promotes shared experiences between graduates and former graduates and international employment through direct support to students on applications, partnerships with EURES network and international cooperation projects. In the field of international employment they also foster Entrepreneurship projects, market research, financing possibilities (microcredit, business angels), and active job search. They are also involved in a cooperation project, language based, with Timor Lorosae, introduction to Portuguese Language; teacher's training; support to Timor students.

Besides the general activities stated above, like internship programs, the ISLA school program Employability 360° integrates a group of best practices:



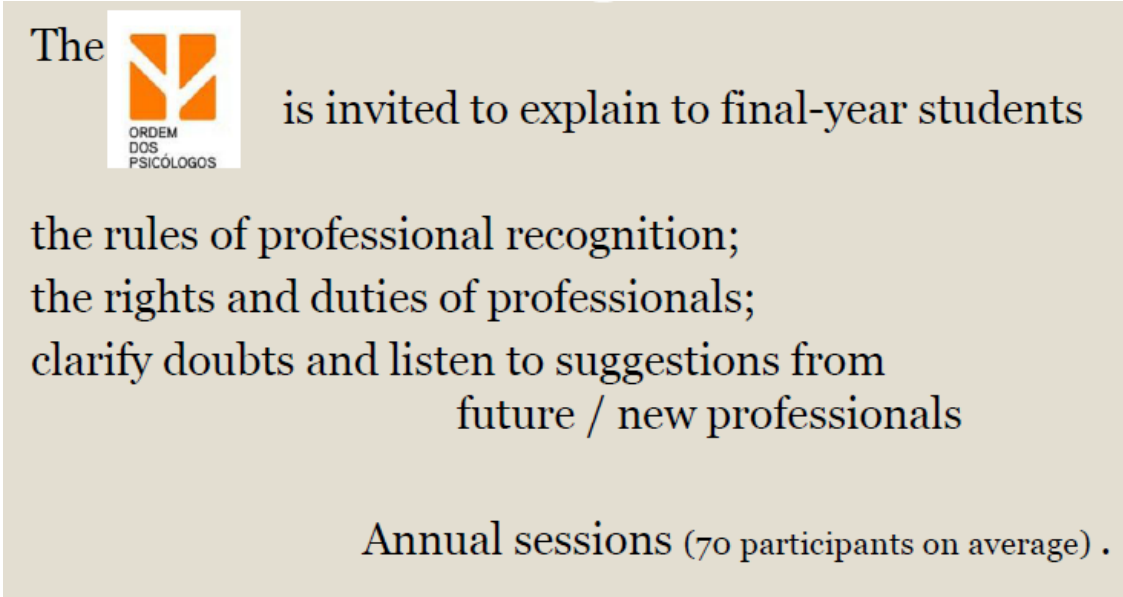
The activities integrated are diverse and goes from specific programs, like the Active job and Senior Program not only focus on recent graduates but also on students already in the labor market or with professional background, to event that bring closer companies to graduates and the university. The objective is to foster entrepreneurial mind and also put the company resources managers in contact with the students.


Some courses are integrated in the academic programmes, like communication skills, professional ethics, creativity and critical thinking, interpersonal relations, management and leadership, image and public relations.

In the field of studying the paths and statistical profiles, the Lisbon University has release since 2000 several studies concerning employability and entrepreneurship. The building of these studies relies on survey implementation, in this particular case at recent graduates (12 and 18 months after graduation).

UL also develops activities to develop skills on employment and entrepreneurship and features workshops, personalized customer service, internationalization programs, specific technical training, promotion of internships and practical experiences and support for the creation of companies.

The strategy of UL also involves professional associations in the process, adding one more partner in the companies – universities relation, gathering professional recognition in the labor market. The professional orders are invited to participate in workshop and sessions.



The  is invited to explain to final-year students

the rules of professional recognition;
the rights and duties of professionals;
clarify doubts and listen to suggestions from
future / new professionals

Annual sessions (70 participants on average) .

On a final note, it is important to mention the practice of a Job Shadowing program by Universidade Católica Portuguesa (UCP). This practice consists in a program for students to find out what it is like to be in a specific profession. The act of job shadowing is also utilized by college students or by non-student adults simply wanting to experience a particular career opportunity. In either, the shadower will follow the professional and observe their daily work¹⁸. While not being an exclusive practice, it demonstrates a concern of UCP with providing their students with actual direct

¹⁸ [Education 2020 Homeschool, Vocabular, Career elective](#)

exposure to what is their potential future. In UCP, this program is organized in way that the top students are the ones to benefit from it. In short the strategies tend to respond to similar needs but to different contexts. In general the economic context and labor market demands is the engine of the need for a closer relation between the stakeholders on employability, fostering a better adjustment of the market needs to the graduate skills.

FINAL CONSIDERATIONS AND FUTURE DEBATES

The 1st International Conference on Graduate Employability did not have the ambition to produce the solutions to the overall employability problems, nor did have the ambition to produce practical results that one can pick up and implement immediately. The purpose of the conference, as the whole FOLLOW project, was to lay foundations for a more structured debate and to act as a very comprehensive and insightful starting point (or restarting point) for all sorts of work made within the employability field. Some topics, due to their stand out presence, deserve a few additional words.

The Society of knowledge

If from the viewpoint that the convergence must be focused on the capacity of the universities to the labor market needs, where is there room for investigation with the purpose of producing knowledge “per se”? The increase of knowledge and the capacity to understand the phenomena that surrounds us may have its applicability and usefulness in the long term, does this mean that there should not be investment for this kind of research?

Competences and being prepared for the labor market

The immediate capacity to perform a job that recent graduates might or might not have was a hot topic raised by universities, public institutions and employers. For future debates one can ask if the convergence between Universities and employers can be supported by a preparation for the performance of jobs through offices and extra-curricular structures but without influencing directly the curricula for conjectural or structural motives.

The attractiveness of Higher Education

The perception potential HE candidates have can influence, in the short term the shortage of HE students in some courses and consequently might, in the mid and long term, have serious implications in the human resources structure of the labor market or even in the extinction of a course, making a Country less developed in terms of scientific knowledge . A potential lack of attractiveness might be present when the labor market conditions don't allow HE graduates to obtain jobs in a fast and satisfactory but there might even be problems in more developed labor markets. The European Project ATTRACT¹⁹ deals with the problem of the shortage of technology, engineering and science work force in countries where the employment market is better balanced than in South European Economies. The development of these countries allows the population not

¹⁹ www.attractproject.org

to be highly conditioned by employability factors and can achieve good employability levels without higher education degrees. In some cases, such as Belgium or Finland there is not a significant difference in the employability of the different education levels.

The role of the students

The students' role and capacity to mobilize and develop their own structures for improvement and support of employability cannot be underestimated. Students are the main target of initiatives such as FOLLOW and the inclusion of their insight and experiences is essential for a complete observation of the graduate employability phenomena. The resource to quantitative indicators such as employment rates or n° of graduates signed up at job centers allows a macro vision of the phenomena but to act solely on this level might lead to investments in measures which are not adequate and whose efficacy and efficiency may be sub-par. We can metaphorically think that if a boat is sinking, the mental disposition of the one who's on the boat will always be different from the ones on shore thinking what they can do to help. In the name of the multiplicity of motivations, experiences and mental dispositions it is relevant to bring to the debate and seeking of solutions the ones that we are ultimately addressing to, the students and graduates.



EUROPE & EMPLOYABILITY

**The link between patterns of youth
employability in Europe and FOLLOW results**

THE LINK BETWEEN PATTERNS OF YOUTH EMPLOYABILITY IN EUROPE AND FOLLOW RESULTS

In the recent past years, there has been a gathering of different ideas and theoretical approaches concerning the European Labor Market. The Follow project is focused and a part of this process, and has its own main goals and objectives focused on the demands of various European and local policies, namely, the ones focusing on the graduates employability issue.

In 2012, the Council of European Union²⁰ produced some main conclusions on the employability of graduates from education and training. We should remark the following:

- The importance of enhancing employability through education and training in order to meet current and future labor market challenges.
- Should the countries promote partnerships between education and training providers, social partners and other relevant stakeholders in order to ensure a better transfer of information on labor market needs and to provide a better match between those needs and the development of knowledge, skills and competences.
- According the implementation of the Europe 2020 Strategy, where is stressed the importance for enhancing employability of the transition towards learning outcomes-based qualification systems and the greater validation of skills and competences acquired in non-formal and informal contexts.
- to play in improving the employment prospects and skills levels of young people and implementing policies at the national, regional and local level in order to increase the labor market access and employability of young people.
- Student's promotion of their first work experience and participation in the labour market, with the aim of ensuring that within a few months of leaving school young people receive a good quality offer of employment, continued education, an apprenticeship, or a traineeship.

In the same event, the Council produced different explanations for the consequences of the crisis and the actual social and economic context, and emphasizes particularly:

- the students acquisition of knowledge, skills and competences needed to ensure a smooth transition to the EU labor market and to further develop their career prospects ;
- The larger risk of unemployment could affect the education to work transition;
- The pressure of demographic challenges;
- the benchmark on the share of employed graduates would allow policy exchanges to be taken up within the "ET 2020" framework on measures to enhance the employability of graduates.
- the share of the employed population aged between 20 and 34 years old who graduated 1, 2 or 3 years before the reference year and who are not currently enrolled in any further education or training activity

²⁰ COUNCIL OF THE EUROPEAN UNION (2012), *Council conclusions on the employability of graduates from education and training*,

In fact, the term Employability has a large definition and resends us to the combination of factors which enable individuals to progress towards or enter employment, to stay in employment and to progress during their career – this refers not only to each individual's characteristics, skills, attitudes and motivation, but also to other external factors which lie beyond the scope of education and training policy, such as labor market regulations, demography, the structure of the economy and the overall economic situation.

The society, needs to react and act on these concerns, some examples of concrete actions are as followed:

- Fostering career guidance and counseling, creating stronger links between education and training institutions and relevant stakeholders
- Alignment of curricula with labor market needs while avoiding the strangulation or extinction of certain areas of knowledge
- Strengthening entrepreneurship education
- Fostering placements in companies
- Creating more transparent information on learning outcomes
- More responsive education and training policies which reflect labor market skills needs,
- Encouraging all young people to pursue their studies beyond general upper-secondary education and attract them to higher education

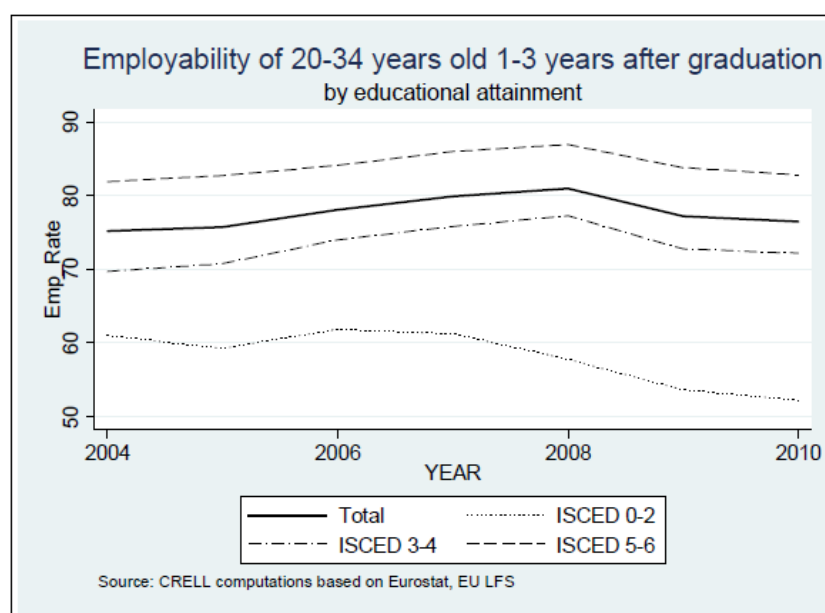


Figure 2. Percentage of 20-34 year-olds employed during the 3 years following their highest graduation, by level of educational attainment

Note: Lower than Upper Secondary Education corresponds to ISCED levels 0-2 (including 3c short); Upper Secondary and Post-secondary Non-tertiary Education to ISCED levels 3-4; and Tertiary Education to ISCED levels 5-6.

Figure 19 - Employability of 20-34 years old 1-3 years after graduation²¹

²¹ JCR European Commission (2011), *Towards a Benchmark on the Contribution of Education and Training to Employability: Methodological Note*, CRELL, Christelle Garrouste

The FOLLOW Project, by organizing the Lisbon Conference on Graduate Employability, allows understanding not only the dimension of some of these conclusions, but mainly the points of view of different stakeholders regarding the graduates employability at HEI's. We have collected some major concerns and practices in the and outside the consortium.

One relevant issue acknowledged in the Lisbon event was the importance and impact of completing a higher education course. In Europe, it is particularly interesting to observe the rates of unemployment and comparing the different levels of educational attainment.

According to the last figure, we should say it is worthwhile to take an ISCED 5/6 degree, because the employment rates are highest and more relevant than in other educational levels.

Another issue that we have put as relevant as a discussion argument was the demographic problems. Some work groups at Europe have worked on this and suggested the following actions²²:

- Increase of birth rate.
- Increase of the employment rate of younger, older, female and low skilled workers.
- Development of productivity, which makes it possible to collect greater contributions with a smaller total labor input (R&DI and education investment; distribution of revenues not only on the companies and venture capital).
- A controlled European immigration policy.
- Voluntary increase of the retirement age.

The higher education systems are based solely on student performance, where the differences between the market needs and the students' wishes are one of the main concerns. Although by definition we only value the technical and hard disciplines, the actual thinking is built around different paradigms, where the artistic skills of the arts and humanities are improved and developed to innovate and produce future technology. If we think for example in iPad, we see technology meets art and design. The only reason why early Apple computers offered different fonts was because Steve Jobs, prior to being thrown out of university, had been on a calligraphy course. To be employable, you need a range of skills and attitudes. Creative thinking is one of them.

One of the more significant confusions within specialists and non-specialists is the difference between "employability" and "employment", so easily confused. People tend to think the two words are interchangeable, when in fact, this isn't always the case. Employability is a highly dynamic concept. It denotes a progression and a certain amount of self-sufficiency. Being in employment, on the other hand, is static; it's about being paid to do a certain job. For understandable reasons, the graduate job market is preoccupied by the rhetoric of "getting a job", but getting a job is only part of employability.

Decent higher education should produce employable graduates, regardless of subject of study or academic discipline. Employers know this, which is why when recruiting so few of them specify academic disciplines. What they want are bright, enthusiastic and motivated graduates. The graduate recruitment is going to change, based on the recession (the employers have less funds to recruit and the overall budgets are being cut). The appearance of social networks have

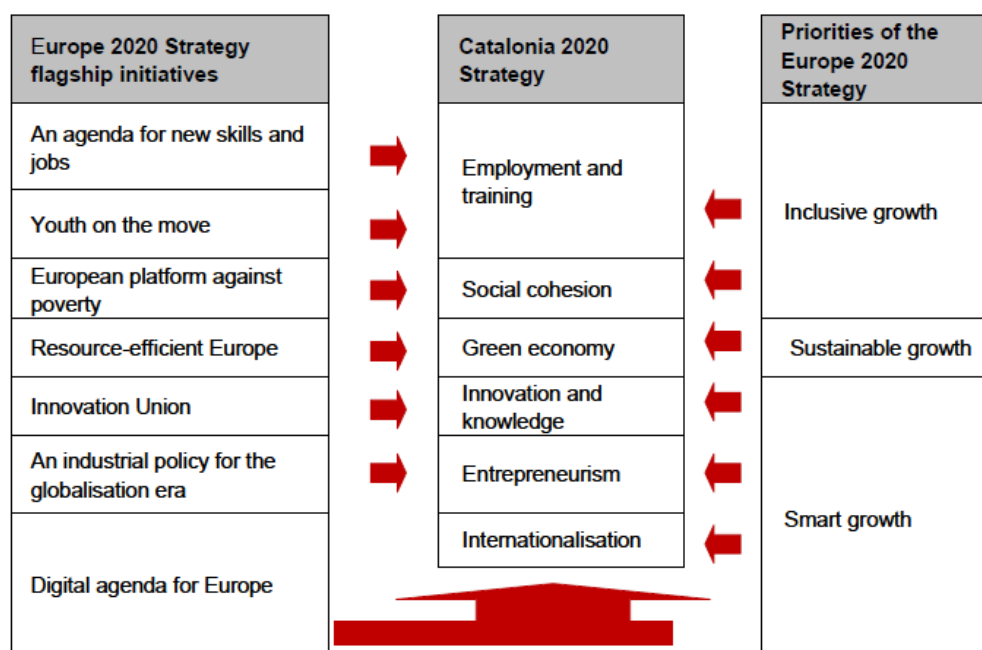
²² CCOO de Catalunya: Zagreb – Konzeptpapier (2011), Good Held Europe – working group – employability

changed the approaches to candidates to the labor market, the internships are a good solution to test the future employers. Through the WP1, we gained insight on how the partners of FOLLOW Project have designed different ways to support this market changes and have adapted their services and strategies to achieve this new challenges.

Another topic focused and discussed on the Lisbon Conference was the help careers services measure impact. New challenges on this like the investment in resources, the rate of return in activities or the mapping of key stake holder of careers services are determinant to improve these units.

These discussion domains have, from a certain point of view, a large approach in the Europe 2020 Strategy, but, this European sharing space should be defined also with local policies based on the global European strategies. For instance, the government of Catalonia, Spain, has defined the Catalonia 2020 Strategy. On this, one of the key analysis factors is the Employment and Training.

Figure 20 - Equivalence between the Europe 2020 Strategy flagship initiatives and headline targets and the six priority areas of action identified by ECAT 2020²³



ECAT 2020 identifies six priority areas based on, firstly, the headline targets and the seven flagship initiatives of Europe 2020 Strategy and, secondly, the needs and priorities of the Catalan economy. In fact, this is relevant for the analysis of the employment; each local policy is supported on the European level of analysis. As we can see in the previous figure, one of the 6 priority areas defined by ECAT strategy is based on the agenda for new skills and jobs and on the youth on move. The European, national and local policies are too much concerned about the youth unemployment and the direct and indirect consequences for the society. The priorities of Europe 2020 Strategy

²³ ECAT – Government of Catalonia (2012), *Catalonia 2020 Strategy*, Ministry of Economy and Knowledge, <http://www.gencat.cat/economiaconeixement>

underline these concerns, where the inclusive preoccupations, the context of sustainability and the intelligent growth, are innovative approaches on the European agenda for the next few years.

The Employment and Training priority assume diverse goals, but we should highlight:

- The creation of employment, namely on sectors with high potential for job creation, with concomitant improvement of workers skills. (e.g. the energy industry -energy efficiency and renewable energy sources; home rehabilitation; ICTs; care for dependent people; logistics and transport; the agri-food industry; and certain company service activities such as design, translation, consultancy and call centers.
- It is necessary to improve the way the labor market works, namely, mechanisms for professional mediation, information and guidance so as to adjust supply to demand in the labor market.
- Promote the job quality and modernization of labor organizations, where the economic and social stakeholders should play a major role.
- Reduce the drop-out rates and improve the human capital skills to the real needs of the production system.
- Design and implementation of an advanced educational model aimed at generating an innovative, inclusive and quality vocational training model, supported on lifelong, flexible education and where the English has become the international language.
- Helping the young people to gain access to the labor market.
- Using ICT to promote equal opportunities and improve vocational skills.
- Promote professional and training mobility.
- Attract and retain talent and employability high-qualified professionals in the production sector.

The construction of an European Labour market will be the big challenge for the 21st century, but with different patterns between the countries it's a very hard task to consolidate the taught mentioned on the last topic list, the capacity to attract and retain talent. This topic was covered on the Lisbon Conference, and emphasized the problems with the brain drain and human capital flight in the countries with worst economic performance. There is no capacity to retain them and complying these national governments to lead with low levels of investment return on education. How to organize a system well balanced and with a relation win-2-win, it's the key factor to reach the common European labor market.

One of the perspectives and imbalances showed in Europe was the economic and social value of higher education institutions. There is a deeper gap across the Europe, as the following table could show us:

What the job market wants

Thousands of recruiters, chosen from top companies in 20 countries, were asked to rank universities based on the employability of their graduates. The online survey was compiled by Emerging, a human resources consultancy based in Paris, and Trendence, an institute that researches employer branding, personal marketing and recruitment.

WHERE THE SCHOOLS ARE:
U.S. and Canada | Europe | Rest of the world

RANK	SCHOOL	COUNTRY	RANK	SCHOOL	COUNTRY	RANK	SCHOOL	COUNTRY	RANK	SCHOOL	COUNTRY
1	Harvard Univ.	U.S.	31	École des Mines Paris	France	61	Ludwig-Maximilians-Univ. München	Germany	91	Univ. of Virginia	U.S.
2	Yale Univ.	U.S.	32	Monash Univ.	Australia	62	ESSEC	France	92	Michigan State Univ.	U.S.
3	Univ. of Cambridge	Britain	33	Australian National Univ.	Australia	63	Zürich Univ.	Switz.	93	Politecnico di Milano	Italy
4	Univ. of Oxford	Britain	34	Univ. de Navarra, IESE	Spain	64	Katholieke Univ. Leuven	Belgium	94	Arizona State Univ.	U.S.
5	Stanford Univ.	U.S.	35	Indian Institute of Science	India	65	EMLYON Business School	France	95	Fundação Getúlio Vargas	Brazil
6	Mass. Institute of Technology	U.S.	36	National Univ. of Singapore	Singapore	66	Univ. of New South Wales	Australia	96	Univ. of Michigan, Ann Arbor	U.S.
7	Columbia Univ.	U.S.	37	New York Univ.	U.S.	67	Northwestern Univ.	U.S.	97	Purdue Univ.	U.S.
8	Princeton Univ.	U.S.	38	King's College London	Britain	68	Georgetown Univ.	U.S.	98	Handelshögskolan i Stockholm	Sweden
9	Imperial College London	Britain	39	Univ. of Pennsylvania	U.S.	69	Erasmus Univ. Rotterdam	Neth.	99	Lund Univ.	Sweden
10	Goethe-Univ. Frankfurt am Main	Germany	40	École Centrale Paris	France	70	Univ. of Nottingham	Britain	100	Technische Univ. Eindhoven	Neth.
11	Peking Univ.	China	41	Dartmouth College	U.S.	71	Univ. of Manchester	Britain	101	Waseda Univ.	Japan
12	Univ. Heidelberg	Germany	42	Univ. of Edinburgh	Britain	72	Univ. of Southern California	U.S.	102	Washington Univ.	U.S.
13	H.E.C. Paris	France	43	IE Univ.	Spain	73	Göteborgs Univ.	Sweden	103	Univ. of Helsinki	Finland
14	Tokyo Institute of Technology	Japan	44	Shanghai Jiao Tong Univ.	China	74	Univ. Bern	Switz.	104	Texas A&M Univ.	U.S.
15	London School of Economics	Britain	45	Univ. of California, Los Angeles	U.S.	75	ESCP Europe	France	105	Sciences Po Paris	France
16	Univ. College London	Britain	46	Hong Kong Univ. of Science and Tech.	H.K.	76	Frankfurt School of Fin. and Managem.	Germany	106	Keio Univ.	Japan
17	Boston Univ.	U.S.	47	Kyoto Univ.	Japan	77	Univ. of Copenhagen	Denmark	107	Brigham Young Univ.	U.S.
18	Univ. St. Gallen	Switz.	48	Bocconi Univ.	Italy	78	Georg-August-Universität Göttingen	Germany	108	Univ. of Waterloo	Canada
19	California Institute of Technology	U.S.	49	Univ. of Sydney	Australia	79	Univ. Paris Sud	France	109	The Chinese Univ. of Hong Kong	H.K.
20	École Normale Supérieure	France	50	Technische Univ. München	Germany	80	Karolinska Institutet	Sweden	110	Tecnológico de Monterrey	Mexico
21	Univ. of Chicago	U.S.	51	Univ. Basel	Switz.	81	Rijksuniversiteit Groningen	Neth.	111	Trinity College Dublin	Ireland
22	Brown Univ.	U.S.	52	Univ. Mannheim	Germany	82	Carnegie Mellon Univ.	U.S.	112	Univ. of São Paulo	Brazil
23	Univ. of Tokyo	Japan	53	McMaster Univ.	Canada	83	Boston College	U.S.	113	Univ. Nacional Autónoma de México	Mexico
24	Univ. of Toronto	Canada	54	Stockholm Univ.	Sweden	84	Tsinghua Univ.	China	114	Univ. of Washington	U.S.
25	Univ. of California, Berkeley	U.S.	55	Swiss Federal Inst. of Tech. Zurich	Switz.	85	Univ. of Western Ontario	Canada	115	Univ. of Bristol	Britain
26	Duke Univ.	U.S.	56	Queen's Univ.	Canada	86	Technische Univ. Delft	Neth.	116	Univ. de Paris Dauphine	France
27	École Polytechnique Paris	France	57	Univ. de Lausanne	Switz.	87	Cornell Univ.	U.S.	117	Univ. of Cape Town	S. Africa
28	Fudan Univ.	China	58	Univ. Gent	Belgium	88	Univ. zu Köln	Germany	118	Brandeis Univ.	U.S.
29	McGill Univ.	Canada	59	Johns Hopkins Univ.	U.S.	89	Macquarie Univ.	Australia	119	Case Western Reserve Univ.	U.S.
30	Univ. of Montreal, H.E.C. Montreal	Canada	60	Univ. of Birmingham	Britain	90	Univ. of North Carolina	U.S.	120	Ohio State Univ.	U.S.
121	Univ. of California, San Francisco	U.S.							121	Univ. of California, San Francisco	U.S.
122	Univ. of Texas, Austin	U.S.							122	Univ. of Texas, Austin	U.S.
123	Univ. of Arizona	U.S.							123	Univ. of Arizona	U.S.
124	Univ. of Wisconsin, Madison	U.S.							124	Univ. of Wisconsin, Madison	U.S.
125	Univ. of Bath	Britain							125	Univ. of Bath	Britain
126	The Hebrew Univ. of Jerusalem	Israel							126	The Hebrew Univ. of Jerusalem	Israel
127	Osaka Univ.	Japan							127	Osaka Univ.	Japan
128	Univ. of California, San Diego	U.S.							128	Univ. of California, San Diego	U.S.
129	Korea Adv. Inst. of Science and Tech.	S. Korea							129	Korea Adv. Inst. of Science and Tech.	S. Korea
130	Univ. Ramon Llull, ESADE	Spain							130	Univ. Ramon Llull, ESADE	Spain
131	Emory Univ.	U.S.							131	Emory Univ.	U.S.
132	Rice Univ.	U.S.							132	Rice Univ.	U.S.
133	Univ. of South Carolina	U.S.							133	Univ. of South Carolina	U.S.
134	Vanderbilt Univ.	U.S.							134	Vanderbilt Univ.	U.S.
135	Univ. of Warwick	Britain							135	Univ. of Warwick	Britain
136	EDHEC	France							136	EDHEC	France
137	Univ. of Florida	U.S.							137	Univ. of Florida	U.S.
138	Univ. of Durham	Britain							138	Univ. of Durham	Britain
139	Univ. of the Witwatersrand, Johannesburg	S. Africa							139	Univ. of the Witwatersrand, Johannesburg	S. Africa
140	Rutgers Univ.	U.S.							140	Rutgers Univ.	U.S.
141	Univ. of Illinois, Urbana Champaign	U.S.							141	Univ. of Illinois, Urbana Champaign	U.S.
142	Univ. of Maryland	U.S.							142	Univ. of Maryland	U.S.
143	Univ. of Notre Dame	U.S.							143	Univ. of Notre Dame	U.S.
144	Univ. of Minnesota	U.S.							144	Univ. of Minnesota	U.S.
145	Hirotsuabashi Univ.	Japan							145	Hirotsuabashi Univ.	Japan
146	Univ. of Pittsburgh	U.S.							146	Univ. of Pittsburgh	U.S.
147	Seoul National Univ.	S. Korea							147	Seoul National Univ.	S. Korea
148	Indian School of Business	India							148	Indian School of Business	India
149	Scuola Normale Superiore Pisa	Italy							149	Scuola Normale Superiore Pisa	Italy
150	Moscow State Univ.	Russia							150	Moscow State Univ.	Russia

Note: Between May 18 and June 7, 2012, more than more than 2,500 recruiters and about 2,200 international chief executives and business managers were asked to select their top universities. The countries represented were Australia, Brazil, Britain, Canada, China, France, Germany, India, Italy, Japan, Malaysia, Mexico, the Netherlands, Russia, Singapore, South Korea, Spain, Sweden, Switzerland and the United States. Source: Emerging

This study conducted by the Emerging, a human resources company based in France and Trendence (Research Institute on this issues), lets find a clear concentration of choices on the part of recruiters from 20 countries in Anglo-Saxon universities, demonstrating the lack of balance and the differentiation of the economic and social value of a degree across the europe.

But the differences are detected not only across countries, but across the own country and across regions. As example, Flemish Community²⁴ show big differences in labour market opportunities. About 78% of highly educated school leavers in 2005 had a job in 2006. These percentages amount to 68,4% of medium educated school leavers and merely 45,3% of low educated school leavers. These differences are even more pronounced when the figures of the total population of people aged 15 to 34 are examined. More than 88% of highly educated people aged 15 to 34 is working, whereas employment rates among low educated people have dropped significantly from 36% in 2002 to a very low 28% in 2006 (despite an upward movement in labor market conjuncture in 2005 and 2006). So, but we have a common pattern at Europe, with better education, we have more job opportunities.

The Flemish Community also concludes the following patterns for the region:

- the risk of unemployment and inactivity is higher among low educated people compared to medium educated people; this risk is the lowest for high educated people;
- the chance of being self-employed is higher among medium and high educated people compared to low educated people;
- low educated people have a lower chance of having permanent work;
- highly educated people are overrepresented in the tertiary and public/government sector.
- Highly educated people earning more than other classes

²⁴ Expertisecentrum O&O Monitoring van de Vlaamse Gemeenschap, Flemish Ministry of Education and Training (2009), Higher education in the Flemish Community of Belgium, the French Community of Belgium, Luxembourg and the Netherlands

Figure 21 - Difference in monthly gross wage (%) according the educational level (Flemish Community; 2006-07)

	2002	2004	2006	2008
Secondary education or lower (= reference)	0	0	0	0
Higher education, one cycle (professional bachelor)	+10,9%	+13,4%	+13,8%	+15,3%
Higher education, two cycles (academic master)	+20,9%	+23,4%	+25,4%	+26,4%
University (academic master)	+28,9%	+33,5%	+36,3%	+37,7%

Figure 22 - Highly educated school leavers and their labour market position one year later, according to their filed of study (Flemish Community; 2006-07)

School leavers 2006	Still job seeking after one year (in %)	Still job seeking after one year, without any work experience (in %)
Higher education, one cycle (Professional Bachelor)	5,6	1,0
Health Care	1,0	0,2
Commercial Sciences and Business Studies	4,7	1,3
Bionics	4,9	1,2
Industrial Sciences and Engineering	5,8	1,6
Social-agogic work	7,1	1,7
Education	7,6	0,4
Architecture	8,4	2,6
Higher education, two cycles (Academic Master)	6,6	1,7
Bionics	0,0	0,0
Industrial Sciences and Engineering	2,0	0,8
Architecture	2,1	1,0
Health Sciences	3,1	1,6
Commercial Sciences and Business Studies	3,3	1,0
Product Development	6,3	3,2
Applied Linguistics	9,0	1,2
Music and Dramatic Art	16,1	3,7
Audio visual and Expressive Art	23,1	5,2
University	5,4	1,5
Pharmaceutical Sciences	0,0	0,0
Social Health Sciences	0,0	0,0
Dental Surgery	0,0	0,0
Medical Sciences	0,3	0,3
Applied Sciences	1,3	0,8
Applied Bionics	2,8	1,2
Economics and Applied Economics	3,1	1,0
Sciences	4,1	1,5
Law, Notaryship and Criminological Sciences	5,0	1,9
Theology, Religious Studies	6,1	0,0
Physical Education, Kinesiology and Rehabilitation Sciences	6,3	0,8
Political and Social Sciences	7,3	1,9
Psychological and Pedagogical Sciences	7,4	2,0
Linguistics and Literature	7,9	1,6
Veterinary Sciences	8,4	3,9
History	10,6	3,3
Philosophy and Ethics	15,3	1,3
Archaeology and Art Sciences	15,8	4,6

The table above let know one the difference between the different areas and cycles among the job seeking. The graduates of humanistic and social areas take a longer time to get a job face to medical and applied sciences. This pattern is similar in Portuguese labor market, where the unemployment rates affect more the social sciences graduates than the others.

Figure 23 - Unemployment Rates for Higher Education Graduates, by education field (2011)²⁵

	Desempregados com ano de conclusão do curso		Diplomados		Desempregados/ Diplomados (%)
	2000 a 2010		1999-2000 a 2008-2009		
	N.º (A)	%	N.º (B)	%	(A) / (B)
14 - Formação de professores/formadores e ciências da educação	4 302	11,7%	97 963	14,3%	4,4%
21 - Artes	2 499	6,8%	32 690	4,8%	7,6%
22 - Humanidades	1 430	3,9%	26 519	3,9%	5,4%
31 - Ciências sociais e do comportamento	4 249	11,6%	55 403	8,1%	7,7%
32 - Informação e jornalismo	1 335	3,6%	14 616	2,1%	9,1%
34 - Ciências empresariais	5 994	16,3%	104 586	15,3%	5,7%
38 - Direito	1 112	3,0%	25 314	3,7%	4,4%
42 - Ciências da vida	632	1,7%	13 647	2,0%	4,6%
44 - Ciências físicas	579	1,6%	12 144	1,8%	4,8%
46 - Matemática e estatística	234	0,6%	7 126	1,0%	3,3%
48 - Informática	435	1,2%	10 856	1,6%	4,0%
52 - Engenharia e técnicas afins	2 543	6,9%	62 886	9,2%	4,0%
54 - Indústrias transformadoras	673	1,8%	8 760	1,3%	7,7%
58 - Arquitectura e construção	2 513	6,8%	36 044	5,3%	7,0%
62 - Agricultura, silvicultura e pescas	588	1,6%	11 386	1,7%	5,2%
64 - Ciências veterinárias	140	0,4%	2 741	0,4%	5,1%
72 - Saúde	3 440	9,4%	106 309	15,5%	3,2%
76 - Serviços sociais	1 859	5,1%	17 423	2,5%	10,7%
81 - Serviços pessoais	1 398	3,8%	24 090	3,5%	5,8%
84 - Serviços de transporte	29	0,1%	627	0,1%	4,6%
85 - Protecção do ambiente	640	1,7%	9 448	1,4%	6,8%
86 - Serviços de segurança	86	0,2%	3 349	0,5%	2,6%
TOTAL	36 710	100,0%	683 927	100,0%	5,4%

The unemployment rates for graduates in Portugal affects more, in relative numbers, the graduates from Social Services (10,7%), Journalism (9,1%) and Social Sciences and Behavior Sciences (7,7%). This numbers reports to the year of 2010. In the last 2 years, the unemployment rates in the young people have raised (2012, almost 40%), although on the graduates the rates are substantially lower.

Beside the unemployment rates, the market characteristics it's one of the topics that we have approach on the conference and where the universities showed a large concern with this. A reference paper on Belgium made an overview of the quality of work and employment in the country based on the data that have been collected through the European Working Conditions Survey (EWCS) in 2010. We should note some particularly highlights:

- A taxonomy with seven quality of work clusters
- Job quality is unevenly distributed on the labor market
- Good quality work is healthy work
- Good quality work is sustainable
- A good social climate, a safe workplace and controlled job demands

²⁵ GPEARI (2011), Relatório VIII, Dezembro 2010, MCTES – Portuguese Science, Technology and Higher Education Ministry

- Precarious work particularly a risk for vulnerable groups
- The opportunity of restructuring decisions

The last of these highlights, is especially interesting, as we can observe on the following figure:

Figure 24 - Top 5 sectors with high and low levels of restructuring (2010)²⁶

High level of restructuring	%	Low level of restructuring	%
J: Information and communication	54.0	T: Households	8.0
D: Energy	53.0	S: Other services	21.0
C: Manufacturing	43.0	R: Arts, entertainment and recreation	22.0
K: Financial and insurance	42.0	N: Administrative and support services	25.0
H: Transportation and storage	42.0	P: Education	26.0

On the sectors showed at the right part of the table, we should note the ones that have low level of restructuring (the percentage of employees experiencing a substantial restructuring affecting their immediate working environment). Where the Linking levels of restructuring to sectors with an increase or decrease in employment over the last decade, it is clear that sectors with high levels of restructuring are also suffering from a decrease in employment. According the reference work in Belgium, sectors as manufacturing, financial and insurance or transportation experienced a decline in employment while sectors as households, recreation or education enjoyed a growth in employment.

On summary, the working environment as changed the scope and their features and the stakeholders and graduates needs to adapt their approaches, and gain substantially added value developing proactive policies and mechanisms adapted to these conditions.

On Italy, the Ministero dell Lavoro e delle Politiche Sociali, supported on the european level, developed the Action plan for youth employability - through learning and employment integration, and highlight the following priorities to develop the full youth employability.

- Easing the transition from school to work
- Revitalizing technical-vocational teaching
- Revitalizing apprenticeship contracts
- Rethinking the use of training internships, work-experience in the curriculum, health and safety education, pensions protection from school and university age
- Rethinking the role of university learning
- Opening up research doctorates to the economic system and labor market

One of the major findings on this report focused on the university degrees as requirement to a given type of employment. The expected learning outcomes provided by the HEI's were evaluated by the students of the Alma Laurea platform²⁷.

²⁶ Vandenbrande, T.; et al (2012), *Quality of work and employment in Belgium*, HIVA, KULeuven

²⁷ AlmaLaurea is an innovative service providing on-line graduates' curricula. The aim of AlmaLaurea is to be a meeting point for graduates, universities and the business world. It was set up in 1994 following an initiative of the Statistical Observatory of the University of Bologna. Since then it has experienced an exponential growth; now it involves 78% of Italian graduates and on 12/11/2012 the total number of curricula coming from 64 Italian universities amounted to more than 1,700,000 units. AlmaLaurea is run by a consortium of Italian universities with the support of the Ministry of Education, University and



Figure 25 - Degrees in demand for employment^{28, 29}

As we could see, the educational qualification and type of employment entered are not always consistent. It remains true, however, that the match is closer for graduates from longer degree courses, compared with those who took the three-year degree. 66% of the three-year graduates say they are in a job where their specific degree was a requirement, a figure that compares with 69% for graduates from longer degree courses. As regards the substantive, and more purely formal, need for a particular degree for a given type of employment, about 69% of graduates in both groups say that their university education was indeed necessary. About 31% could perform their job without their university learning. Only 58.1% of graduates from long degree courses said that their degree and the work they do were a full match, in both formal and substantive terms. This compares with 56.1% for three-year graduates. 20% of long-degree graduates and 21.4% of three-year graduates are over-qualified for their jobs. The match between education received and work engaged in varies, of course, in relation to the subjects studied and the course duration.

Research. It is aimed at being a reference point for everyone who deals at different levels with issues like academic studies, employment and youth conditions.

²⁸ Ministry of Labour and Ministry of Education, *Italia 2020 - Piano di azione per l'occupabilità dei giovani (Italy 2020 - Action plan for young people's employability)*, Rome, 2009.

²⁹ LEGEND: corsi lunghi – Long courses, corsi triennali – 3-year courses; Subject groups: Defence and security, Medicine, Chemistry-pharmacy, Engineering, Architecture, Geo-biology, Agriculture, Science, Law, Total, Physical education, Arts, Economics-statistics, Teaching, Psychology, Languages, Politics-social