# AlmaLaurea Inter-university Consortium: connecting universities effectively with labour markets and professionals



Aim of this article is to provide a quick outline on the impact that the establishment of the AlmaLaurea Inter-University Consortium is having in the Italian and international higher education context as the largest and most widespread system linking universities, skilled human resources and companies. When it all started in 1994, it represented a key change in the Italian context. Italian Universities took in charge the destinies of their young graduates by developing innovative instruments capable of accompanying them through the delicate transition from study to work. In parallel to this, AlmaLaurea progressively increased its relevance for the academic world thanks its capacity to provide timely, updated information on graduates and their performances made available for the evaluation of the higher education system and the assessment of the Bologna Process outcomes.

Cont	ent	Page
0.	Intoduction	2
1.	Brief summary description of the AlmaLaurea initiative	2
2.	How and why the project was developed	3
<b>3.</b> 3.1 3.2 3.3	The mechanics of how graduates, universities and businesses participate AL Graduate participation Monitoring and supporting the higher education system Interaction with business and the creation of job opportunities for graduates	e in 5 6 7
4.	4. The process of internationalisation and expansion to other countries	8
<b>5.</b> 5.1 5.2	AlmaLaurea for monitoring and research Post-Bologna graduate employability Employment trends of pre-reform graduates at three and five years after graduation	<b>10</b> 11 14
6.	Conclusions	15

Employability

## 0. Intoduction

AlmaLaurea (AL) is one of the main actors in Italy with responsibility for providing institutional and governing agencies with the most reliable and up-to-date information on the changing profile of graduates. This mission has become even more relevant in the context of the Bologna Process reforms and in the unpredictable climate of economic downturn and attempted recovery. In the first and second sections of this article we summarise AL's initiatives, reviewing its main objectives, features and stages of development. The third section provides an overview of the AL "model" and the conditions under which graduates, universities and companies participate in it. The fourth part describes the ongoing internationalisation process. The fifth and final section focuses on AL's research and monitoring activities, providing some detail of the graduate employment survey published in 2010.

## 1. Brief summary description of the AlmaLaurea initiative

- AlmaLaurea since 1994 AL is an Inter-University Consortium set up in Italy, at the University of Bologna, in 1994. Since then it has experienced exponential growth. At present, it involves 76% of the total number of each annual Italian graduate cohort, and currently stores in its database a total of 1,370,000 CV's from 61 Italian universities.
- The Inter-UniversityIts establishment as an Inter-University Consortium, the growing vol-<br/>untary membership of an increasing number of universities, the direct<br/>support of the Italian Ministry of Education and Research, have made<br/>AL an essential point of reference for universities' governing bodies,<br/>for analysts, students, teachers, and for businesses seeking qualified<br/>personnel.

AL supplies reliable data at short notice. This information supports all decision-making processes and planning activities, with particular relevance to the design of training programmes and other services targeted at students.

**Two main surveys** The information generated by AL falls into two main categories. The first is the graduate profile survey, carried out yearly. The main aim of this survey is to monitor graduates' performance and characteristics, to describe the human capital produced by universities in every calendar year of graduation (i.e. their internal effectiveness and efficiency), to supply every university, faculty and degree programme with reliable data on its own graduates, to monitor implementation of the Bologna Process.

The second annual survey concerns *graduates' employment conditions*. Graduates are interviewed on their employment conditions after 1, 3 and 5 years following graduation. The focus of the survey is to assess the capacity of labour demand and labour markets to take advantage of the human capital created by universities and, reciprocally, the capacity of the universities to meet society's requirements and needs (i.e. their external effectiveness and efficiency).

The response rates for both surveys are around 90%. Such high participation is due to the intensive use of updated information held in the database, which makes it easier to trace the graduates and to interview them.

Furthermore, AL also promotes measures aiming at fostering better and more equal conditions for young people in their access to both the Italian and the international labour markets. Companies can purchase CV's via a direct selection system based on over one hundred search parameters, as well as publish job vacancies, acquire advertising space and company profiles, and use pre-screening facilities. Companies can check online at any time the availability of graduates with the required characteristics and verify their qualifications (including, for instance, the type of the degree course, degree marks, final thesis subject, study abroad, master's degree), their language and IT skills, experiences, expectations and so on.

### 2. How and why the project was developed

The AL initiative has become very well known in the course of its first 16 years of activity as a specialist player in the Italian university system. There is no doubt that, certainly in the Italian context, AL has proved to be a significant institutional innovation. It is worth briefly outlining the main stages of its evolution.

In 1988 the University of Bologna celebrated its nine hundredth anniversary. To mark the occasion, a number of research initiatives were embarked upon, among them, an investigation by a small group of scholars into the characteristics and subsequent careers of foreign students attending the University. This first pioneering work of research, with its focus on foreign students, prompted the thought that more comprehensive research on graduates' academic performance and professional outcomes had never previously been undertaken and would therefore be extremely worthwhile. A small cultural revolution, with long-term consequences, then took place – with the formal decision to establish a national registry of graduates. In 1993, the Statistical Observatory of Bologna University started the AL Project with the aim of creating a meeting point for graduates, universities and busi-

AlmaLaurea for businesses

### AlmaLaurea history

Introducing Bologna objectives and tools

Promoting new approaches to learning

Employability

	nesses. Italian universities deemed it strategically important to main- tain a close relationship with their graduates, providing them with the services and the information required to ease their entry into the la- bour market, while at the same time tracking their academic and pro- fessional careers.
	The experience launched in Bologna University in 1994 was soon was made available to the other Italian universities. Although it proved necessary to overcome the legitimate wish, on the part of certain uni- versities, to implement similar systems of their own, it was clear from the outset how far a common and shared system could open on to a wider horizon: the international and globalised arena in which Italian higher education should present itself as a whole, avoiding the self- destructive outcome of each university "blowing its own trumpet".
Nationwide expansion of the Bologna experience	The nationwide expansion of the project – which gained the support of the Ministry of Education and Research – led to a considerable increase in the number of curricula included in the database and to the online availability of this information from January 1997 onwards.
	In October 2000 AL became an Inter-University Consortium, having in ten years expanded from the 20 founding universities to its current 61 members <sup>1</sup> .
AlmaLaurea's uniqueness	AL's uniqueness consists in creating an integrated system capable of guaranteeing a data set which is <i>complete</i> (universities can access the Consortium on condition that they make their entire student database readily available), <i>periodical</i> (surveys are carried out at regular intervals), <i>appropriately timed</i> (universities can obtain a year-on-year 'snapshot' of their internal and external performance) and <i>up-datable</i> (the data-base is 'live' to the extent that CV's are updated by the graduates themselves, maintaining an accurate record of their career progression. All of these characteristics <sup>2</sup> are made possible by the extended use of information technologies, both for managing the graduate database and for delivering its services through the Internet. All services are accessible online through the website www.almalaurea.net.

<sup>&</sup>lt;sup>1</sup> AL is a non-profit organisation. Private companies co-finance the provision of AL's services. Associated universities co-finance the Consortium, paying a share that, as matter of fact, has decreased over time, due to its efficient management. The Ministry of Education and Research also funds the initiative. The breakdown of current revenue streams is as follows: universities 40%, business 35%, and Ministry of Education and Research 25%.

<sup>&</sup>lt;sup>2</sup> These characteristics are in line with European standards on statistical quality, recently re-formulated in Regulation 223/2009 of the European Parliament and The Council.

### 3. The mechanics of how graduates, universities and businesses participate in AL

### 3.1 Graduate participation

AL brought about a dramatic paradigm shift in Italian higher education. It drew attention to individual universities (seen in the context of official national statistics) and paved the way for a powerful focus on the ultimate beneficiary of the educational process: the graduate.

This approach prompted the creation of new indicators capable of tracking student and graduate characteristics, their social background, capabilities, competences acquired and utilised, access to the labour markets, careers, and the ways in which their educational outcomes corresponded to the needs of research, industry and society.

Historically, the quality of data on graduate careers has been very poor. In Italy this information has been deficient over a long period, underlining just how entrenched has been the disregard for the evaluation of the educational system, for relevant cultural issues and for the professional destinations of highly educated young people. The AL monitoring system resolved these problems.

Graduating students make contact with AL when they are about to finish their course of study. They have to log on to the AL website, acquiring a username and password in order to access all the available functions. Students fill in a questionnaire with the information required to complete a personal record aimed at generating a curriculum vitae (CV) and making statistical analysis possible<sup>3</sup>. At this stage, however, they can choose whether or not to publish their CV on the The paradigm shift

How graduating students get in touch with AlmaLaurea

<sup>&</sup>lt;sup>3</sup> The questionnaire contents refer to: social background and parents' qualifications, details of university study (attendance rates, studies abroad, Erasmus mobility, fellowships, internships), employment during their studies, assessment of university experience (academic performance, teachers' evaluation, fellow students, course workload), university facilities (libraries, IT workstations, lecture halls), language and IT skills, study and work prospects, student services, urban facilities and infrastructures (transportation, cultural activities, leisure).

AL website<sup>4</sup>. After graduation, the universities send the graduates' administrative records<sup>5</sup> to AL.

AL staff are responsible for detecting any inconsistency (or missing data) in the administrative data provided by each university and the information previously provided by graduates, a process which culminates in the certification of the CV.

**CV update** Thereafter, the graduates use the editing facility on the web interface to update their CVs. These may be supplemented by information concerning the training and work experience gained over time<sup>6</sup>. Businesses have direct access to published CV's through a wide range of services (see section 3.3 below).

# 3.2 Monitoring and supporting the higher education system

**Bottom-up governance** and subsidiarity AL's activities have gained in scope and relevance by following a development model, which combines bottom-up governance (voluntary membership of the consortium by universities, commitment to a specific mission and values) with subsidiarity (legal and financial autonomy, self-governance). Italian universities, for the first time in their centuries-old history, have assumed responsibility for their young graduates' subsequent careers by developing innovative instruments to accompany them through the delicate transition from study to work. AL has progressively increased the number of participating universities and proportionally expanded its capacities to provide timely, updated information on graduates and their performances, which is subsequently made available for the evaluation of the higher education system and the assessment of the Bologna Process outcomes in Italy.

**How to join** The membership procedure for universities includes a formal decision by the university's collegial bodies, the approval of the AL statute, the fulfilment of technical and financial obligations, and the appointment of representatives to the consortium's General Assembly and Scientific Committee.

<sup>&</sup>lt;sup>4</sup> Only part of the information assembled in the CV really matters; most indicators are aggregated and used exclusively for research purposes. Information is nevertheless disseminated with strict protection of the graduates' privacy.

<sup>5</sup> Nature of school-leaving diploma and marks obtained, enrolment and graduation age, single exams and final dissertation evaluations and marks, actual length of undergraduate studies, high school degree.

<sup>&</sup>lt;sup>6</sup> Only the administrative data provided by the university and validated by the staff cannot be edited.

The core business of the consortium remains the generation of the information necessary to assess each university's internal and external effectiveness/efficiency and to enhance their quality assurance processes (see section 5).

There are further benefits for member universities: their career services acquire the means to foster graduate employability by better matching job supply and demand; it is even possible for them to set up consultation points in order to manage the entire AL database locally, with the immediate advantage of being able to monitor directly the links with the business network at local level. AL also supports tools for the better dissemination of pre- and post-graduate courses, for the provision of counselling services to newly enrolled students, and for the availability of an archive of graduate and doctorate thesis titles.

# 3.3 Interaction with business and the creation of job opportunities for graduates

Dramatic changes in recent decades have significantly altered the relationship between higher education and the economic system as a whole. It is now widely accepted that the relationship between the business community and universities is of strategic importance. Structured partnerships bring about many opportunities, particularly in the field of research and knowledge transfer. Perhaps less well understood, but equally important, are the relationships that the business community builds with universities, in order to increase the relevance of education and training programmes and to foster mutual cooperation for the most efficient recruitment of highly skilled human resources.

In this perspective, direct access to AL's database of CV's, provided online to business companies, represents a particularly attractive resource in the search for highly qualified personnel.

Use of the database makes graduate access to the professions more democratic, in a context where the operation of informal recruitment channels based on family background or community networks are too often unavoidable for graduates seeking better positions.

In contrast, the online selection of personnel is carried out, at least in the initial stages, on the basis of the competences and skills listed in the CV's stored in the database, and according to the job specifications.

As from 2008, it has been possible for AL clients to access a dedicated online micro-site named *AlmaScelta* (*My AL* in English). This tool allows users to: search the database; publish job/internship vacancies; save previous searches for rapid retrieval; store the most interesting candidates' profiles in a reserved area; directly manage online the

Benefits for the universities

Companies access to AlmaLaurea data-base

The AlmaScelta tool

Employability

CV's received in response to published vacancies; subscribe to the database search facility to obtain a fixed quota of CV's (a 'ceiling') which is downloadable from the system (CV's are also made available to businesses via a self-service facility, with payment due when the names and addresses of graduates are obtained).

# 4. The process of internationalisation and expansion to other countries

It is easy to regard AL as a success story, since it has been able to bring together into a unique cooperative system disparate parts of the national academic community. As far as we know, nothing similar exists at European or global levels.

The experience AL has accumulated is now available, on the one hand, to be transferred to other national contexts and, on the other, to project a cohesive image of the Italian higher education system and to raise the visibility of Italian graduates on foreign labour markets.

On this basis, AL has devised a coherent internationalisation strategy, aimed at creating opportunities for cooperation with foreign universities on common issues: setting up quality assessment procedures and instruments; supporting graduates in their transition to work and improving placement conditions; providing counselling tools for newly enrolled students.

In 2008, the outcomes of a project called EAL-NET<sup>7</sup>, which set out to internationalise the AL database, have been fully integrated into the AL system, enabling foreign users and universities to benefit from the services provided.

Other forms of cooperation are currently being developed:

• *Direct membership of AL.net*. International universities may apply for AL consortium membership, just as is the case for Italian universities. AL commits itself to make graduate CV's available to

International cooperation opportunities

<sup>&</sup>lt;sup>7</sup> The EAL-NET Project, coordinated by AL and funded by the eTEN Programme of the European Commission, involved the Universities of Warsaw (Poland), Maastricht (The Netherlands), Marne-la-Vallée (France) and Budapest-ELTE (Hungary). Technical and scientific support was provided by private partners such as CINECA (Italy), TARKI RT (Hungary) and INTRASOFT (Luxemburg). The main goal of the Project was to develop a "functioning" prototype of a European graduate database containing the CV's of graduates from French, Dutch, Polish, Hungarian universities, in combination with the Italian AL system.

Italian and international companies, to draw up periodical reports on graduate performances and characteristics (the Graduate Profile); to make all data available to local university researchers and scholars; to promote the delivery of postgraduate university education on the international portal; to inform targeted groups of graduates of specific postgraduate training opportunities.

- *Establishment of local graduate DBs.* AL is committed at international level to the provision of consultancy services for the implementation of information systems with characteristics and functions similar to those of AL, building local graduate databases (at institutional, regional or national level) capable of interacting with the broader AL.net international system. One of these projects is currently ongoing, in cooperation with Moroccan universities<sup>8</sup>.
- Cooperation frameworks between AL and other already existing graduate databases. AL wishes to establish relationships with existing graduate database initiatives all around the world, aimed at promoting local graduates internationally through the AL.net channel (with English CV format), and to disseminate CV's both in the Italian and European labour markets. Web links between AL.net and local databases could be created to redirect recruiters to the local website, in order to perform more in-depth CV searches at local level and in the local language. This could create the conditions for the establishment of an international CV database network.

AL has gained great expertise in the field of project management through its involvement in several projects and funding programmes in recent years<sup>9</sup>. It cooperates on a regular basis with many organisa-

<sup>&</sup>lt;sup>8</sup> The GrInsA Project (coordinated by AL and funded by the EU TEMPUS programme), currently involves the Universities of Meknès, Marrakesh and Oujda with the support of three European HEIs: University Toulon-Var (F), University of Tarragona (ES) and Turin Polytechnic (I). It aims to provide Morocco with its own Graduate Database infrastructure, a web platform providing surveys (Profile and Job Conditions), services to business, and to ensure the project's further enlargement to the entire Moroccan academic community (including other Moroccan universities, the Ministry of Education and the Moroccan Conference of University Presidents). www.grinsa.net

<sup>&</sup>lt;sup>9</sup> To quote the most relevant: QACEP Project "Quality Assurance for HEI's continuing education programmes" (coordinated by the University of Bologna in the Lifelong Learning Programme); Medishare Project (coordinated by the CINECA consortium under UE-ACP's EduLink Programme; Eurowex Project "University Administration Services using Digital Signature" (coordinated by Unimatica SpA under the eTEN Programme); the Gradua2 Project (coordinated by Instituto Tecnológico de Monterrey, Mexico in the framework of the ALFA Programme).

Employability

tions and bodies, such as the University of Bologna, other affiliated Italian universities and certain relevant international networks<sup>10</sup>.

Its goal in the near feature is to continue the work already ongoing, establishing new links and more cutting edge international partnerships, capable of enhancing the quality of its projects, and to share new cooperation ideas and funding.

### 5. AlmaLaurea for monitoring and research

The AL database has become crucial to the governance of the university system, through its provision of the effectiveness, efficiency and transparency indicators required by the Ministry of Education<sup>11</sup> and by satisfying national agencies' monitoring needs as they assess the implementation of the Bologna Process reforms<sup>12</sup>. Furthermore, AL conducts studies and research projects for local academic committees and evaluation units such as: highly qualified human capital surveys for individual regions and territories; thematic focuses (i.e. living conditions in university towns, features and outputs of Erasmus graduates, PhDs' characteristics and employment conditions).

As mentioned earlier, two main reports derive from the AL database. survey The first is the Survey of Graduate Profiles, conducted on a yearly basis and only four months after the end of the reference calendar year. This information is freely available on the web. The survey gives a quantitative and qualitative assessment of the human capital produced by the universities, looking at their effectiveness and internal efficiency and providing each university, faculty and degree programme with reliable data on their graduates.

AlmaLaurea for governance

Graduates' profile

<sup>&</sup>lt;sup>10</sup> AL is member of EUNIS (European Network of University Information Systems), FEDORA (European Forum for Student Guidance) and has joined the REFLEX research group (Flexible Professionals in the Knowledge Society: New Demands on Higher Education in Europe). AL has cooperated in several contexts with the Coimbra Group, the Bologna Promoters network, ENIC/NARIC Italian agency (CIMEA), Euro-Mediterranean Permanent University Forum, Magna Charta Observatory and many other agencies and foreign universities.

<sup>&</sup>lt;sup>11</sup> Ministry Decree 544, 31 October 2007 and Ministry's General Director Decree 61, 10 June 2008, which identify specific efficiency indicators.

<sup>&</sup>lt;sup>12</sup> Ministry Decree 270, 22 October 2004 regulates the monitoring of reform implementation and the provision of instruments for the tuning and design of new courses.

The second annual report is the Survey of graduates' employment conditions. Thanks to graduates' personal information held in the database, graduates are tracked and interviewed on their employment conditions 1, 3 and 5 years after graduation<sup>13</sup>. Data relating to occupational outcomes are subsequently supplemented from the broad pool of data collected by AL from the questionnaires administered to students immediately before the completion of their degrees. It is worth emphasising how far this integrated system is able to shed light on features of great interest, which are not otherwise immediately available without additional ad hoc surveys. To mention only two: the impact of ERASMUS mobility on graduate characteristics and employment conditions, measured by retrieving from the database information on mobile and non-mobile students<sup>14</sup>; the impact on graduates' performances of background factors such residence in the same region in which they attended university or work placement during their studies<sup>15</sup>.

### 5.1 Post-Bologna graduate employability

In recent years great emphasis has been placed on the assessment of "Bologna" graduates' characteristics and employability. The 2009 Survey of graduates' employment conditions covered all post-Bologna reform graduates – first level, second level and single-cycle graduates<sup>16</sup> who left university in calendar year 2008<sup>17</sup>.

The 2009 survey on graduates' employment conditions

<sup>13</sup> Every graduate is interviewed on her/his occupational status: attendance/non-attendance at a second level degree course (only for first level graduates), reason for further enrolment/non-enrolment in second level degree course (only for first level graduates), graduate training activities, occupational status at the time of interview, occupational status at the time of graduation, match between current job and job held at the time of graduation, improvement in employment situation as a consequence of having the degree, number of months elapsed between obtaining the degree and seeking/finding the first job, job-seeking channel used to find the job held at the time of interview, type of job (employee/self-employed), professional position, legal and contractual characteristics, full-time or part-time employment, sector and field of economic activity, firm size, region and province where the job is located, extent to which university-acquired knowledge/skills are used, degree requirements for performing the job, satisfaction felt for various characteristics of the job, net monthly income, reasons for inactivity in the labour market, frequency of action undertaken to find a job.

<sup>&</sup>lt;sup>14</sup> Cammelli A. et al. 2008

<sup>&</sup>lt;sup>15</sup> Cammelli A., Gasperoni G., 2008

<sup>&</sup>lt;sup>16</sup> Single-cycle specialists are a very particular category of graduates, due to the large percentage of those who choose to continue their education in activities which are required for acceding to liberal profes-

Employability

	The much higher number of post-reform graduates (more than 160,000 overall), together with the requests from the Ministry and universities to collate as much detailed information as possible in order to assess the employment outcomes of each single degree course, led to a significant revision of the survey tools, designed to make the research more economical in terms of cost and data collection time. This was achieved in particular, following a positive test carried out on first level graduates in 2006, by using a dual data collection system: CAWI (Computer Assisted Web Interviews) and CATI (Computer Assisted Telephone Interviews) <sup>18</sup> .
	AL is probably the first European research centre to have the opportu- nity to publish data on graduate employability generated by the Bolo- gna Process reforms.
A complex range of available training programmes	However, any assessment of the labour market's willingness to absorb graduates must take into account the complex range of available train- ing programmes. Nor should it be forgotten that the comparison is made between populations that differ in their objectives, training, time-to-graduation, and age at graduation.
	Moreover, to be truly accurate, the analysis should be protected from all possible distortions, in particular those due to the different inci- dence of continuation in a job held before graduation. This is not a minor concern, since in Italy about one third of first and second level graduates in 2008 were employed at the time of graduation, as against only 16% among the former, single-cycle graduates.
Graduates who start work after completing their degree	It should also be borne in mind that the percentage of graduates con- tinuing their studies after a first degree differs. A direct comparison of their employment status would penalise first level graduates in par- ticular, most of whom choose to continue their studies and go on to the Master degree, thereby delaying their entry into the labour market.
	For these reasons, rigorous in-depth analyses aimed at monitoring labour demand and labour market reaction should take into considera- tion only the segments of the population which start working after
	sions, in fields such as architecture, civil engineering, law, medical and health studies, veterinary science.
	<sup>17</sup> The survey also included pre-reform graduates from the summer sessions of the years 2006 and 2004, who were interviewed three and five years respectively following graduation. In total, almost 210,000 graduates from 49 Italian universities were involved in interviews about their job conditions.
	<sup>18</sup> At the conclusion of the survey, the response rate among first-level graduates was 90%, similar to the figure for second level graduates (89%). Slightly fewer (87%) single-cycle specialist graduates responded.

completing degrees, further scaling down the analyses to include only those who wish to enter the labour market.

The analysis of the employability of post-reform graduates shows signs of being positive, particularly if data are compared with all necessary caution when dealing with pre-reform graduates of the last few years<sup>19</sup>. Nevertheless, looking at the main findings of the most recent survey on graduates' occupational status<sup>20</sup>, the employment picture confirms that the labour market has become increasingly difficult as a result of the global economic crisis.

The employment rate of post-reform graduates is, at one year after graduation, 62% among first-level graduates: this value is markedly higher than the employment rate observed for second-level graduates, which is 45.5% among specialist degree holders and 37% among single-cycle degree holders<sup>21</sup>. The lower employment rate of second-level graduates is partly due to the fact that the survey was carried out on the first cohorts of graduates, who are by definition the best and therefore more inclined to pursue postgraduate studies (figure 1). In fact, while the academic performance of first-level graduates has stabilised, the performance of second-level graduates shows unambiguously that the transition phase is still ongoing for them.

Compared with the previous survey, all types of graduates have shown a sharp slowdown in their ability to be absorbed into the labour market: among first-level graduates the employment rate has dropped by almost 7% (62% as compared with 69% of last year), among the second-level graduates the reduction is over 7 percentage points (45.5% against 53% of last year), while among the single-cycle degree holders it is over 5% (37%; the previous employment rate was 43%).

The analysis of employment characteristics confirms the increased difficulties faced by post-reform graduates over the last year. Job security, at twelve months from graduation, already not particularly high, shows a decrease for all cohorts considered, except for single-cycle degree holders (who have a permanent employment in 36% of the cases): the reduction is of 3 percentage points for first-level graduates (permanent employment in 36% of the cases this year), and 2 points

Employment rate

Employment characteristics

<sup>&</sup>lt;sup>19</sup> For an in depth comparison among pre- and post-reform graduates see: Cammelli A. et al. 2010

<sup>&</sup>lt;sup>20</sup> AlmaLaurea, 2010a.

<sup>&</sup>lt;sup>21</sup> As indicated earlier, the situation of single-cycle degree holders is very peculiar, with an employment rate sharply lower than the average: this is due to the high percentage of graduates who pursue their training with activities that are necessary for the practice of certain professions (lawyers, physicians and others).

Employability

for second-level graduates (26% of whom have a permanent job; Figure 3).

Monthly earnings Net monthly earnings at one year from graduation (Figure 3) exceed 1,050 Euros for all course types considered: in nominal terms 1,057 for second-level graduates, 1,109 for first-level graduates, 1,110 for single-cycle graduates. Vis-à-vis the previous survey, nominal wages have dropped for all types of graduates considered: the decrease is of 2% for first-level graduates, 3% for single-cycle graduates and 5% for second-level graduates.

The scenario is even more discouraging if we consider real wages, that is to say if we take into account the change in purchasing power: in this case, in fact, the percentages above should be raised by approximately one point for all the degree categories examined.

# 5.2 Employment trends of pre-reform graduates at three and five years after graduation

The increasing employment difficulties faced by young people, including graduates, during 2008 and 2009 have also affected long-term graduates: in this case, reference is made to pre-reform cohorts surveyed three and five years following graduation. The indicators considered confirm a decrease in the employment rate and in wages; only job security seems to hold the same values of the previous years.

The employment rate, in the last survey, has fallen both for those interviewed at three years and for those at five years from graduation: for the former, the reduction is approximately 5 percentage points (employment rate of 67%); for the latter it is almost 3 points (the percentage of employed graduates is 82% in this case).

On the other hand, the unemployment rate has increased by 3 percentage points among those at three years from graduation (corresponding to a share of unemployed graduates of 13%) and by 2 points among their counterparts interviewed five years following graduation (an unemployment rate of 8%). Extending the time horizon to 8 years, the employment rate for graduates at three years from graduation can be seen to have dropped by 8 percentage points; for those at five years from graduation the period of observation can be extended to four years, and in this case the reduction observed exceeds 4 percentage points. The growth of the unemployment rate, in the same periods, is of 5 percentage points for the former and 3 points for the latter.

A sore point is the level of wages, which albeit nominally higher than 1,300 Euros five years after graduation, has significantly lost its real value over the last four years (approximately 8%).

Graduates' long-term employability

## 6. Conclusions

In this paper we outlined the AL model – the methodology used by AL for creating a fully integrated information system, aiming at diffusing reliable statistical data on graduates' employment status and profile. Its novelty and effectiveness rest on the interaction of two cumulative drivers: the joint use of administrative data and surveys, on the one hand, and the offer of placement services, on the other.

The synthetic presentation of the main results achieved using this methodology shows how unique and comprehensive is the AL database in describing the impact of the Bologna Process reform on Italian higher education.

AL is helping to realise the commitment renewed by European Education Ministers at their meeting in Louvain on 28 and 29 April 2009. Underlining how "the objectives set out by the Bologna Declaration and the policies developed in the subsequent years are still valid today", Ministers also noted that "not all the objectives have been completely achieved". As well as recognising the "utmost priority of public investment in higher education", the final declaration emphasised that "improved and enhanced data collection will help monitor progress made in the attainment of the objectives set out in the social dimension, employability and mobility agendas…" (Leuven/Louvainla-Neuve Communiqué, April 2009, pp.2 et seq.)

We believe that the AL experience can have a significant impact at European level in contributing to the establishment of the European Higher Education Area through continuous and active cooperation with other European stakeholders willing to develop similar systems in their own countries.

Since 2008 all AL documentation and CV's have been available in English. Accurate research into the comparability of the study areas, or subject groups, across Europe is a key feature of the database's search functions. It is the crucial starting point for developing concrete forms of collaboration with non-Italian universities, expanding the initiative beyond national boundaries to the Euro-Mediterranean region.

### References

 AlmaLaurea (2010a): XII rapporto sulla condizione occupazionale dei laureati. L'onda lunga della crisi economica. http://www.almalaurea.it/universita/occupazione/occupazione08/ A fully comprehensive and integrated information system

### Enhance data collection, a priority for Europe

Employability

[2] AlmaLaurea (2010b): Indagine 2010. Profilo dei laureati del 2009, Bologna, AlmaLaurea,

http://www.almalaurea.it/universita/profilo/profilo2009/index.shtml

- [3] Antonelli, G.; Campiglio, L. (2009): Retribuzioni e potere d'acquisto dei laureati. In: AlmaLaurea, Occupazione e occupabilità dei laureati. A dieci anni dalla Dichiarazione di Bologna, Bologna, Il Mulino.
- [4] Bagues, M.F.; Sylos Labini M. (2008): Do on-line labor market intermediaries matter? The impact of AlmaLaurea on the university-to-work transition, http://www.nber.org/books\_in\_progress/labmktinter/bagues-labini9-5-08.pdf
- [5] Cammelli A.; Antonelli, G.; Camillo, di Francia, A.; Ghiselli S.; Sgarzi M. (2010), Graduates' employment and employability after the "Bologna Process" reform. Evidence from the Italian experience and methodological issues, International Conference – DECOWE (Development of Competencies in the World of Work and Education) 24-26 settembre 2009, University of Ljubljana, Slovenia. http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1547150
- [6] Cammelli A. (2009): Le caratteristiche del capitale umano dell'università: prima e dopo la riforma. In: AlmaLaurea (2009b)
- [7] Cammelli, A.; Gasperoni, G.(2008): Più diversi che eguali. Origini sociali, retroterra formativo e riuscita negli studi dei laureati. In A. Cammelli; G. Vittadini (eds.), Capitale umano: esiti dell'istruzione universitaria, Bologna, Il Mulino.
- [8] Cammelli, A.; Ghiselli, S.; Mignoli, G.P. (2008): Study experience abroad: Italian graduate characteristics and employment outcomes. In Byram M., Dervin F. (eds.): Students, staff and academic mobility in higher education, Cambridge Scholars Publishing, Cambridge.
- [9] Cimini, C.; Gasperoni, G.; Girotti, G. (2009): Factors contributing to participation web-based surveys among Italian university graduates, Paper prepared for the Lausanne WAPOR Conference on "Public Opinion and Survey Research in a Changing World", 11-13 September.
- [10] Commission of the European Communities (2008): Progress towards the Lisbon objectives in education and training. Indicators and benchmarks, European Commission, Brussels.
- [11] European Ministers Responsible for Higher Education (2009): Communiqué of the Bologna Process Ministerial Conference of Leuven and Louvain-la-Neuve, 28-29 April 2009, http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/L euven\_Louvain-la-Neuve\_Communiqué\_April\_2009.pdf
- [12] European Parliament and European Council, Regulation 223/2009, 11 March 2009, European Statistics, Brussels.
- [13] Istat (2006): I laureati e il mercato del lavoro. Inserimento professionale dei laureati. Indagine 2004, Istat, Roma.
- [14] Istat (2009): Forze di lavoro. Media 2007, Roma.
- [15] OECD (2009): Education at a glance. 2009, OECD, Paris.
- [16] Reflex (2007), The Flexible Professional in the Knowledge Society: general results of the REFLEX Project, Research Centre for Education and the Labour Market, Maastricht University.

### **Biografies:**

**Andrea Cammelli**: Professor of Social Statistics at the Faculty of Statistical Sciences of the University of Bologna (Italy). Director of the Statistical Observatory of the University of Bologna. In this role he elaborated and directed the AlmaLaurea Project at the University of Bologna in 1993. This initiative has lead to the establishment of the AlmaLaurea Interuniversity Consortium. Professor Andrea Cammelli is the current Director of the Consortium.

Contact: andrea.cammelli@unibo.it

**Gilberto Antonelli**: Full Professor of Economics at the Faculty of Law of the University of Bologna (Italy), Department of Economics. Main research fields are Labour Economics and Human Capital studies, Growth and Development, Economics of Local Systems. Since 2008 is Coordinator of the Scientific Committee of the AlmaLaurea Interuniversity Consortium.

Contact: gilberto.antonelli@unibo.it

**Angelo di Francia**: Scientific Director at the AlmaLaurea Inter-University Consortium, Bologna (Italy). Statistician, coordinator of technical, scientific and data processing area, implementation of surveys on issues related to academic studies.

Contact: angelo.difrancia@almalaurea.it

**Matteo Sgarzi**: Project Officer and international relations coordinator at the AlmaLaurea Inter-University Consortium in Bologna, Italy.

Contact: matteo.sgarzi@almalaurea.it