

FORUM UNIVERSITY-BUSINESS



1st ASEM UNIVERSITIES AND BUSINESS/INDUSTRY FORUM

Session IV

University-Industry Cooperation:
Enhancing Employability of Students and Doctoral Candidates

Bangkok, 25 - 26 March 2010

SPONSORED BY THE



Federal Ministry
of Education
and Research

DAAD

Deutscher Akademischer Austausch Dienst
German Academic Exchange Service



FUNDACIÓN UNIVERSIDAD-EMPRESA *UNIVERSITY-BUSINESS FOUNDATION*

Who are we?
What do we do?
Our network
Our activities



Fundación Universidad-Empresa: who are we?

Private non-profit organization, working with business and academia since 1973

Equal representation on a Board of Trustees that represents 500.000 companies,
16 universities and 385.000 undergraduate and graduate students

Chamber of Commerce and Industry of Madrid - Madrid Business Confederation
16 Universities with 30 campuses in Madrid



Fundación Universidad-Empresa: what do we do?

We address the challenges and opportunities generated in the framework of university-business relations, with a special focus on:

- **Education**
academic and career orientation for secondary students, customized training programmes for companies and institutions, course management for universities and business, UE Converge
- **Innovation**
information and advisory services for SMEs, HR for RD&I, RD&I contract and project management, workshops
- **Entrepreneurship**
business incubator, on-campus workshops, annual seminar for university/vocational training students, graduate programme
- **Job Market and Career Development**
internship programmes for students and graduates, career reorientation for PhDs and researchers, job fairs, job opportunities guide and website, job placements for junior profiles, studies and reports

Fundación Universidad-Empresa: what do we do?

We create new scenarios for university-business relations

2010 - 1st online internship experiences - E-Start / International placements for recent entrepreneurs - e3

2009 - 1st graduate entrepreneurs competition - GRADUATE PROGRAMME

2007 - 1st international graduate internship + training placements - GAIA

2006 - Business incubator for university students and graduates - MADRID CRECE

2005 - 1st internship placements for vocational training graduates - PASARELA

2002 - Empleo madri+d - specialized job site for PhDs and researchers

2000 - 1st entrepreneurship seminar for vocational training and university students

1997 - 1st graduate internship + training placements - CITIUS

1995 - 1st student internship placements in Europe - CAMETT ALFA EUROPA

1990 - 1st Job Opportunities Guide

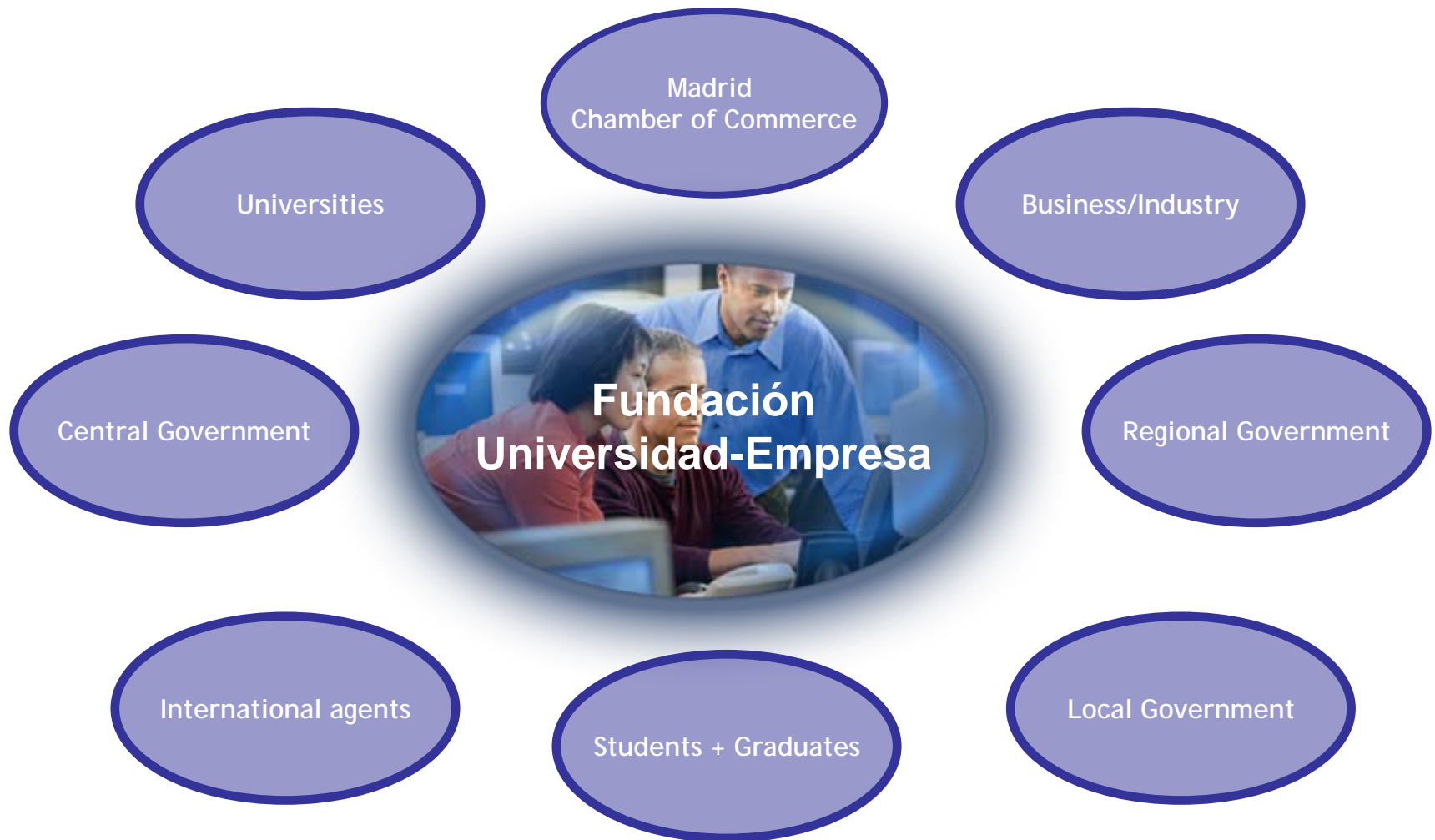
1989 - 1st Master programmes

1979 - 1st university-business foundation created following the FUE model. Today the network includes 32 similar institutions

1976 - SICUE (University-Business Coordination Service). The model for similar services present today in every Spanish university

1975 - 1st COIE (Job Opportunities and Careers Office). The model for career services present today in every Spanish university

Fundación Universidad-Empresa: our network (1)



Agreements with:

33 Spanish universities

- Alcalá
- Alfonso X el Sabio
- Alicante
- Antonio de Nebrija
- Autónoma de Madrid
- Barcelona
- Cádiz
- Camilo José Cela
- Cantabria
- Carlos III de Madrid
- Castilla la Mancha
- Complutense de Madrid
- Córdoba
- Europea de Madrid
- Francisco de Vitoria
- Granada
- La Coruña
- Murcia
- Oviedo
- Politécnica de Cataluña
- Politécnica de Madrid
- Pontificia Comillas
- Pontificia Salamanca
- Rey Juan Carlos
- Salamanca
- San Pablo CEU
- Santiago
- Sevilla
- Valencia
- Valladolid
- Zaragoza
- UDIMA
- UNED

Public administrations

- Madrid City Council
- Regional Government of Madrid
 - Dpt of Education
 - Dpt of Employment & Women's Affairs
 - Dpt of Economy
- Spanish Government
 - Ministry of Education
 - Ministry of Science & Innovation
 - Ministry of Labour & Immigration
 - Ministry of Economy
 - Ministry of Industry, Tourism & Commerce
 - Ministry of Foreign Affairs & Cooperation
- European Union
 - DG Education & Culture
 - DG Enterprise & Industry

Agreements with over 500 companies



Fundación Universidad-Empresa: our activities (1)

Education	Innovation	Entrepreneurship
<p>Academic orientation programmes for students</p> <p>SECONDARY SCHOOL - VOCATIONAL TRAINING - UNIVERSITY</p>	<p>Information and advisory services for SMEs</p>	<p>Fostering awareness and promoting entrepreneurship</p> <p>ON-CAMPUS WORKSHOPS - MOBILE CLASSROOM - INTERUNIVERSITY COMPETITION - ANNUAL YOUNG ENTREPRENEUR DAY</p>
<p>Customized training programmes for companies and institutions</p>	<p>HR recruitment for RD&I</p>	<p>Business incubator</p> <p>PERSONAL TUTORS & MENTORS BUSINESS PLAN BUSINESS INCORPORATION</p>
<p>Course management for Universities and Business</p>	<p>R/D&i contract and project management</p>	

Job Market and Career Development

Students	Graduates	Phds & research oriented profiles
<p>Internship programmes</p> <p>START - COOPERA - COOPERACION EN RH+O LIDER - PASARELA</p>	<p>Combined postgraduate training + internship programmes</p> <p>CITIUS - OPTIMUS - GAIA - UNIVEM</p>	<p>Career reorientation and job placements</p> <p>MADRI+D JOB SITE CAREER STRATEGY SEMINARS AND GUIDES TORRES QUEVEDO</p>

Job opportunities and orientation

GUÍA DE LAS EMPRESAS QUE OFRECEN EMPLEO - GUÍATE

www.quierounbuentrabajo.com

TALENTOTECA: JOBS FOR JUNIOR PROFILES

Studies and reports

HR RECRUITMENT NEEDS AND PROFILE REQUIREMENTS - GRADUATE JOB PLACEMENT

STUDENT AND GRADUATE ENTREPRENEURSHIP - UNIVERSITY CAREER SERVICES

GRADUATE CAREER EXPECTATIONS AND LEVELS OF COMMITMENT

FUNDACIÓN UNIVERSIDAD-EMPRESA *UNIVERSITY-BUSINESS FOUNDATION*

*Identifying graduate skills and competences for the
knowledge society job market*

- *Sectorial employment workshops*
 - *Thematic studies and reports*
- *UEConverge: a joint university-business initiative*



Identifying graduate skills & competences for the knowledge society job market

• Annual Sectorial Employment Workshops

- In cooperation with Dpt of Employment & Women's Affairs, Regional Government of Madrid
- **Objective:**
 - An in-depth study of employers' profile requirements in business or industrial sectors of terms of areas of knowledge, skills and competences
 - Analysis of profile supply & demand and identification of profile gaps
 - Short and mid-term recommendations for training policies
- **Participants:**
 - Business & Industry: HR managers & experts, representatives from business organizations & associations
 - University: Vicerectors, School Directors, Career Services officers, ...
 - Administration: Representatives from the Regional Government (Dpt of Education, Dpt. Of Employment & Women's Affairs)
 - Unions: Representatives from the major unions (UGT, CCOO)
 - Professionals: Representatives from professional bodies and organizations
- **Sectors studied to date:**
 - ICT, legal & financial services, marketing & publicity, security, engineering & architecture, construction, automobile & aerospace industries, graphic arts, stock management, distribution & transport logistics, commerce, hospitality, dependence



Identifying graduate skills & competences for the knowledge society job market

- Thematic studies and reports
 - Our most recent reports refer to:
 - Graduate job placement (annual)
 - University career services (2006)
 - Student and graduate entrepreneurship (2006)
 - Incorporation of PhDs in business and industry (2007)
 - [Graduate skills & competences vs HR profile requirements: UEConverge \(2008\)](#)
 - Graduate career expectations and levels of commitment (2009)

UEConverge: a joint university-business initiative

- **Bologna Process / EHEA / Knowledge Society Job Market**

- Universities: new HE degree structure, study contents and teaching methods
- Employers: new profile requirements in the framework of globalization and knowledge society
- Knowledge society job market: key priority for skills and competences



New degrees & study contents must not only provide academic knowledge, but also guarantee the acquisition of adequate skills and competences for employability and career development in the knowledge society

- Universities need first hand information from employers
- Employers need to transmit their profile requirements to Universities



“Three out of every four companies have never contacted a University”

Ángel Gabilondo, Spanish Minister of Education



- **On-line platform**

- **Information/Background documentation:**

- Bologna Process and EHEA: Bologna Declaration and UE Communiqués; Spanish EHEA legislation
- Reports and Studies: Reflex, Tuning, Trends, national studies
- Press area: news coverage of the Bologna Process in Spain

- **Questionnaires:**

- Designed by experts from participating Universities & FUE
- Answered by HR managers & experts
- General and specific graduate skills/competences required by employers
 - Level of skills/competences held by graduates entering the job market
 - Gaps between employer needs and graduate skill/competency levels
 - Employer needs regarding curricular internships and stages

- **Results:**

- Results of each questionnaire were provided for participating Universities, companies and institutions
- Participating Universities incorporated results in the evaluation and design process of new EHEA degrees and course contents

- **Institutional support**

- Madrid Chamber of Commerce
- Madrid Business Confederation (CEIM)
- DG Universities and Research, Regional Government of Madrid

- **Participating parties**

- **Expert Committee**

- 1 representative from each of the 16 Universities of Madrid, supported by internal teams of experts in specific knowledge areas
- 1 representative of the Fundación Universidad-Empresa, supported by staff members
- 1 representative of the Regional Government (DG Universities and Research)

- **Employers:**

- 220 HR managers and/or experts from companies and corporations, business associations, NLOs and research institutions (large, medium and small) representing 25 economic sectors and employing over 685.000 people

UEConverge: a joint university-business initiative

- Issues addressed:
 - General skills and competencies all graduates should possess
 - Instrumental, personal and systemic skills and competences
 - Computer and language skills and competences
 - Organizational and methodological business skills and competences
 - Specific skills/competences and knowledge requirements
 - 68 degrees and/or academic subject areas
 - Internship programmes as a needed or necessary training experience in the framework of the new EHEA degrees and study content

UEConverge: a joint university-business initiative

RESULTS QUESTIONNAIRE 1: Instrumental, personal and systemic skills/competences					
MOST IMPORTANT FOR EMPLOYERS	HIGHEST GRADUATE LEVEL	LEAST IMPORTANT FOR EMPLOYERS	LOWEST GRADUATE LEVEL	LARGEST GAPS	SMALLEST GAPS
Teamwork	Teamwork	Leadership	Leadership	<u>Concern for quality</u>	Computer skills
Capacity for learning	Capacity for learning	Critical and self-critical abilities	Critical and self-critical abilities	Decision making & problem solving	Capacity to work in international context
Concern for quality	Computer skills	Capacity to work in an international context	Language skills	Capacity for organization and planning	Basic knowledge of the profession

UEConverge: a joint university-business initiative

RESULTS QUESTIONNAIRE 2: Computer and language skills and competences					
MOST IMPORTANT FOR EMPLOYERS	HIGHEST GRADUATE LEVEL	LEAST IMPORTANT FOR EMPLOYERS	LOWEST GRADUATE LEVEL	LARGEST GAPS	SMALLEST GAPS
E-mail/Internet Word processing	E-mail/Internet Word processing	Data bases Other applications	Data bases Other applications	Presentations Data bases Spreadsheets	E-mail/Internet
English: Oral and written comprehension Oral and written and expression	English: Oral and written comprehension Written expression	German: Oral and written comprehension Oral and written and expression	German: Oral and written comprehension Oral and written and expression	English: Oral and written comprehension Oral and written and expression	French: Oral and written and expression

UEConverge: a joint university-business initiative

RESULTS QUESTIONNAIRE 3:

Organizational and methodological business skills and competences

MOST IMPORTANT FOR EMPLOYERS	HIGHEST GRADUATE LEVEL	LEAST IMPORTANT FOR EMPLOYERS	LOWEST GRADUATE LEVEL	LARGEST GAPS	SMALLEST GAPS
Quality management systems Personal data protection	Basic business areas Labour risk prevention systems	Types of business and principle characteristics	Corporate social responsibility	Personal data protection Corporate social responsibility	Types of business and principle characteristics

UEConverge: a joint university-business initiative

RESULTS QUESTIONNAIRE 4: Internship programmes

Practical professional training is important	99%
Students should have working experiences through company internships	96%
Internships should be mandatory	82%
Credits should be given for internship experiences	92%
Students/graduates should receive a stipend during their internships	82%
Stipends should be payed by the host company	62%
Minimum and maximum internship duration	6 - 12 months
Minimum and maximum weekly hours for internships	20 - 40 hours
Internships coinciding with the academic year	88%
Internships should focus on the acquisition of generic and specific competences	84%
Participating companies/organizations that offer, or would be willing to offer, student internships	95%
Practical professional training is important	99%

UEConverge: a joint university-business initiative

RESULTS QUESTIONNAIRE 5: An example: Business Administration

MOST IMPORTANT FOR EMPLOYERS	HIGHEST GRADUATE LEVEL	LEAST IMPORTANT FOR EMPLOYERS	LOWEST GRADUATE LEVEL	LARGEST GAPS	SMALLEST GAPS
Project design & management	Finance management	International finance	International finance	Project design & management	Economic history
Cost Accounting	Cost Accounting	Mathematical analysis	Spanish & world economy	Market management	
Financial Accounting	Financial Accounting	Economic history	Capacity to transmit economic matters	Capacity to transmit economic matters	

68 questionnaires

Arts & Humanities: 14 degrees/study areas
 Architecture & Engineering: 14 degrees/study areas
 Experimental Sciences: 10 degrees/study areas
 Life Sciences: 9 degrees/study areas
 Social & Legal Sciences: 21 degrees/study areas

FUNDACIÓN UNIVERSIDAD-EMPRESA
UNIVERSITY-BUSINESS FOUNDATION

Enhancing student and graduate employability

- *Orientation*
- *First work experiences in the real sector*
- *Career opportunities in business and industry for research/technology profiles*



Specific seminars and interactive workshops for:

- Secondary school and vocational training students
- Undergraduates and recent graduates
- Pre and postdocs

Definition of personal career plan

Academic options and opportunities

Career options and professional opportunities

Job market

Job search techniques

Entrepreneurship

- Orientation guides:

Quiero estudiar ...

- Secondary school and vocational training students
- Full in-depth overview of available academic options
- In cooperation with the Department of Employment & Women's Affairs, Regional Government of Madrid

Guía de empresas que ofrecen empleo

- Undergraduates and recent graduates
- Complete job opportunities guide
- In cooperation with the Chamber of Commerce of Madrid

Manual de estrategia profesional

- Pre and postdocs
- Career strategy manual for research profiles in business
- In cooperation with the DG Universities & Research, Regional Government of Madrid

Available in print and online

Student and Graduate Internship Programmes: the framework

- Legal frame work: *Real Decreto de Cooperación Educativa / Ley de Universidades*
- Tripartite agreements (Host Company - University - Foundation)
- 100% financing from host organizations
- Academic and company tutors
- Insurance coverage for interns (health care & accident)
- Applications accepted year-round
- Possibility of customized programmes to meet specific company requirements (special recruitment needs, special training schemes, for example)



Over 23.000 student and graduate internships to date
Approximately 80% of interns stay on with their host company
More than 500 host companies and institutions

Student and Graduate Internship Programmes: our role

- Recruitment and pre-selection process of student and graduate candidates
- Recruitment of host companies and institutions
- Counseling & orientation for candidates, host companies and institutions
- Support in the design and coordination of mandatory postgraduate programmes
- Legal and financial administration (tripartite agreements, insurance policies, taxes, company invoices, grant payments, etc.)
- Marketing and promotion to different target groups (students, graduates, universities, business, ...)
- Customization of programmes
 - specific company requirements (special recruitment needs, special training schemes, for example)
 - specific profiles (liberal arts, HR, BA, vocational training, for example)

Student Internship Programmes

- Students are given the opportunity apply their knowledge in a real professional work environment, while acquiring valuable business skills
- Admission subject to prior completion of at least 50% of total degree credit load
- Internships in companies, institutions or business associations located in the metropolitan area of Madrid
- 3 to 6 months, during the academic year or special summer programmes
- Part-time (20 to 25 hours/week), morning or afternoon shifts
- 400 € minimum monthly grant





Student Internship Programmes: an example of good practice

- Promoted by *Universidad Autónoma de Madrid*, *Círculo de Empresarios* and *Fundación Universidad-Empresa* since 1985
- Close to 3.000 students and 100 host companies
- Participating students carry out a special academic programme which includes specific seminars given by professionals from the host companies
- Internships are an integral part of the programme and are awarded course credits
 - Business Administration / Economics: each academic year includes a 4-month full-time internship
 - Human Resources and Organization: one 7-month full-time internship following completion of the academic courses
- Monthly grant: 400 to 500 €
- Financing from host companies covers the cost of intern grants and special seminars and activities
- Graduates receive a complementary Diploma in Cooperative Education together with their Degree in Economics, Business Administration or Psychology

Graduate Internship Programmes

- Maximum age 30 years old, under 6 months experience in degree field, Spanish and foreign graduates
- Internships in companies, institutions or business associations located in Spain and abroad
- 12 to 18 months, full-time
- 800 to 1500 € monthly grant
- Mandatory postgraduate courses (University postgraduate programmes specifically designed for the different internship programmes, 160 to 300 hours, classroom and/or on-line)
- Upon completion of the programme (academic courses and internship) graduates receive a postgraduate degree granted by the participating university





Graduate Internship Programmes: an example of good practice

- Promoted by *Universidad Autónoma de Madrid* and *Fundación Universidad-Empresa* since 1997 (26 editions)
- Over 6.000 graduates and 200 host companies and institutions
- 80% of participating graduates are hired before or upon completion of the programme
- Participating graduates have the opportunity of designing their own academic programme (minimum 160 hours) based on their personal and professional profile requirements:
 - Business, Law, Economics, Human Resources, Languages (English and French), Computer Sciences, Computer Skills, Engineering, Sociology, Environmental Sciences, Pharmacology, Professional Skills
- Participating companies and institutions have the opportunity of designing specialized academic programmes in their field of business. An example:
 - CITIUS COMEX: specialized training in international commerce, promoted by the Madrid Chamber of Commerce, 120 graduates in 6 editions since 2000, placements in business associations, course content given by experts from the CCIM and UAM faculty.

Working together with business and universities: some recent examples

- GAIA: international internship + graduate course programme with a special focus on global business environments
- Vodafone Research: rotational programme in corporate research centres
- EADS Europe: international corporate mobility
- ADESLAS Hospital Management: specialized training + career development plan
- HP University Campus: intensive specialized training + job options
- E-Start: online resolution of real business cases
 - in response to the growing need of internships (mandatory and/or optional) within the new EHEA degree curricula (undergraduate & graduate)
 - adapted to EHEA, the programme grants ECTS credits + business certification
 - financed by HEIs, responsible for the procurement of curricular internships for their students, and cost-free for participating companies
 - individual or group internships supported by academic and company tutors
 - ideal for fostering university-business relations with SMEs
 - based on a Web 2.0 platform

Programmes are successful when:

- built upon strong university-business links and cooperation schemes
- responding to the needs of all intervening parties: higher education institutions, students & graduates, employers
- designed within transferable models
- based upon permanent monitoring and prospection (observatories, trend studies, sectorial reports, etc.)

Career opportunities in business and industry: predocs, postdocs and recent graduates with research/technology profiles

R/D & I Job Portal (www.madrimasd.org/empleo)

- Specialized job site embedded within the regional science & technology network madri+d
- Career opportunities in the public and private sectors (business, industry, universities, research centers, ...)
 - research
 - innovation management
 - predoc and postdoc grants
- Career orientation services
 - professional strategy seminars (23 editions since 2003, 450 participants)
 - professional strategy manual
 - CV revision
 - online orientation/counseling
 - monthly newsletter
 - blog

Career opportunities in business and industry: predocs, postdocs and recent graduates with research/technology profiles

R/D & I Job Portal: 12,300 registered profiles

	2005	2006	2007	2008	2009
New registrations	1,210	1,370	1,180	1,507	1,689
CV updates	699	1,489	2,316	2,515	3,432
Offers posted	276	518	1,002	1,143	836
Users hired	38	58	95	110	111

User profile:

31% are PhDs and 32% are employed and seeking a career change

Sciences: 57%
Engineering: 26%
Social Sciences: 12%
Humanities: 5%

Biology: 15%
Chemistry: 12%
Industrial Engineering: 11%
Telecommunications: 8%

Career opportunities in business and industry: predocs, postdocs and recent graduates with research/technology profiles



Type of positions offered:

Teaching:	2%
Research & innovation management:	14%
Computer & lab technicians / consultants:	40%
Research (pre & postdoc):	44%

Positions offered in:

Biology/Medicine:	31%
IT:	16%
Research & innovation management:	14%
Materials / Manufacturing technologies:	12%
Physics / Mathematics:	8%
Social Sciences:	7%
Environmental Sciences/Energy:	6%
Industrial Engineering:	4%
Humanities:	2%

FORUM

UNIVERSITY-BUSINESS

Fundación Universidad-Empresa

www.fue.es

Contact info:

Marisol Pastor

Directora del Gabinete Técnico

mpastor@fue.es

+34 91 548 98 71