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OECD Reviews of Higher Education in Regional and City Development

The Basque Country, Spain

SELF-EVALUATION REPORT

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Directorate for Education
Policy Advice and Implementation (PAI)

This report was prepared by Maite Martínez-Granado, Patxi Greño and Mercedes Oleaga of NAIDER in collaboration with a number of higher education institutions in the Basque Country as an input to the OECD Review of Higher Education in Regional and City Development. It was prepared in response to guidelines provided by the OECD to all participating regions. The guidelines encouraged constructive and critical evaluation of the policies, practices and strategies in HEIs' regional engagement. The opinions expressed are not necessarily those of NAIDER, the OECD, or its member countries.

ACRONYMS

ANECA	National Agency for Quality Assessment and Accreditation of Spain
ARGO	Mobility Grants
BA	Bachelor
BBK	Bilbao- Bizkaia Bank
BBVA	Bilbao- Bizkaia- Argentaria Bank
BERC	Basque Excellence Research Centre
BIC	Business Innovation Centers
BSc	Bachelor of Science
CAPV	Basque Country Autonomous Community
Caritas	Networks dedicated to reducing poverty and injustice
CDTI	Centre for Industrial Technological Development
CEI	International Campus of Excellence
CEIR	International Campus of Excellence at regional level
CIC	Cooperative Research Centres
COTEC	Technology Innovation Foundation
CRUE	Spanish Universities Rectors Conference
CSIC	Spanish National Research Council
CYD	CYD Foundation aims to promote the contribution of Spanish universities to the economic and social development of Spain
DNA	Deoxyribonucleic acid
DIPC	Donostia International Physics Center
DU	Deusto University
E2I	Spanish Innovation Strategy
ECTS	European Credit Transfer and Accumulation System
EFQM	European Foundation for Quality Management
EHEA	European Higher Education Area
ENCYT	Spanish National Science and Technology Strategy
ENQA	European association for quality assurance in higher education
ERA	European Research Area
EU	European Union
EUROSTAT	European Union Statistics Institute
EUSTAT	Basque Statistics Institute
FARO	FARO Global programme offers students studying their final degree courses in Spanish Universities the possibility of carrying out a period of work experience in companies situated in Europe, Asia, USA and Canada
FP 7	7th Framework Programme
GDP	Gross Domestic Product
GERD	Global gross expenditure on R&D
GVA	Gross value Added
HEI	Higher Education Institutions
HES	Higher Education System
IBP	UPV/EHU Programme for the promotion of innovation in teaching
ICT	Information and communications technology
IHOBE	Basque Public Society that works in the field of environmental protection and management
INE	Spanish National Statistics Institute
Ikesbasque	Basque Foundation for Science
Ikuspegi	Basque Immigration Observatory
INGENIO	Spanish research, development and Innovation programme
ISCED	International Standard Classification of Education
ISI	Institute for Scientific Information- Thomson Institute for Scientific

	Information
ISO	International Organization for Standardization
Kutxabank	Saving Bank
Lanbide	Basque Employment Service
LOMLOU	Modification of the Organic Law that regulated the Spanish University System
LOU	Organic Law that regulated the Spanish University System
MCC	Mondragon Corporation
MU	Mondragon University
n.a.	Not Available
OE	Strategic Objective
OECD	Organisation for Economic Co- operation and Development
ONCE	Foundation for Cooperation and Social Inclusion of the Disabled,
OTRI	Knowledge Transfer Office
PCTI	Science, Technology and Innovation Plan
PCTI 2015	Science, Technology and Innovation Plan 2015
PIE	Plentzia Marine Station
R&D	Research and Development
R&D&i	Research and Development and innovation
RTO	Research and Technology organisations
RVCTI	Basque Science, Technology and Innovation Network
SME	Small and Medium Enterprise
UEU	Basque Summer University
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEP	United Nations Environment Program
UNIBASQ	Agency of Quality Evaluation and Accreditation of the Basque University System
UPV/EHU	Basque Country University
USD	United States Dollar
VET	Vocational Education and Training

TABLE OF CONTENTS

LIST OF FIGURES, TABLES AND BOXES

FIGURES

TABLES

BOXES

EXECUTIVE SUMMARY

Overview of the region

The Basque Country is an autonomous community in northern Spain, which straddles the border between France and the rest of Spanish territory. The Basque Autonomous Community enjoys a high level of self-government in matters as important as health, education, security, housing, employment or taxation. On 25th May 1985, the transfer of powers to Basque Autonomous Communities in the field of higher education was started.

This autonomy to decide its own organization stems from the Statute of Autonomy of Gernika, approved by referendum on 25 October 1979, which recognizes the existence of a Government with executive powers and a Parliament with general legislative capacity. Another fundamental pillar of Basque self-government is the Economic Agreement (*Concierto Económico*), the Autonomous Community's financial support system, which gives the Basque institutions autonomy to collect and administer public taxation depending on their own budgets and on agreements signed with the central Spanish administration.

Basque Autonomous Community occupies a total surface area of 7,234 square kilometres and is home to 2,174,033 people (source EUSTAT 2010). The Basque population has grown over the past years with an average annual growth rate of 0.45% from 2.08 million in 2000 to 2.17 million in 2010, representing 4.6% of the total Spanish population. The size of the Basque economy, as measured by the GDP, reached 64,464 million Euros in 2010 that is 6.1% of the Spanish GDP.

The Basque Country shows a relative specialization in manufacturing. Its share on the total GVA was in 2010 of 22.7%, ten points above the relative importance of the sector in Spain and more than seven points above its relative importance in the EU27. However the participation of this sector has decreased steadily in the last ten years. As a counterpart, the service sector has increase its relative importance accounting for 63.4% of the GVA in 2010.

In the manufacturing sector, the specialization in the Basque Country is in the production of basic metals and elaborated metal products, and machinery and equipment which represent respectively 32% and 12.6% of the total manufacturing GVA. The Basque GVA in machinery and equipment represents 21% of the total GVA in this subsector in Spain. The relative importance of the food and beverage, textile and chemical products sectors is lower in the Basque Country than in the rest of Spain or in Europe in general. The sectors of medium and high technology represented in 2010 for the Basque Country 7.4% of the total GVA while in Spain they represented 3.7%. Most of this GVA corresponds in the Basque Country to the machinery and equipment sector.

Characteristics of the higher education system

Spain's higher education system consists of both university and non-university institutions. Non-university higher education consists of post-secondary higher vocational training (Formacion profesional de grado superior) and specialized higher education (Art and Design, Sports, Religious or Military education).

The Basque University System is conformed nowadays by three universities, one public, the University of the Basque Country/ Euskal Herriko Unibertsitatea (UPV/EHU) and two private ones: University of Deusto with a religious background and Mondragon University, a cooperative University member of the Modragon Corporation but open to the whole society and closely linked to the Corporation's entrepreneurial character[1]. The three universities conform

[1] In addition, Basque students can enroll in undergraduate and graduate programs of the National Distance University (UNED) and on several other universities that belong to other Spanish or International Universities. Of special relevance given its size is the School of Engineering TECNUM, dependent of the University of Navarre, and located in San Sebastian, that during 2010-2011 enrolled 1239 undergraduate

today a system that offers 100 certified bachelor degrees, 133 official masters and 78 doctoral programs, attended by almost 60,000 students in the different campuses (11) located in the three Basque provinces.

The UPV/EHU, as the only public university in the Basque Country, maintains a wide range of degrees and postgraduates courses in all knowledge branches. Although a public university, it has some peculiarities in terms of governance when compared with other Spanish public universities. In particular, the UPV/EHU is constituted as a multi-campus university, with one campus associated to each of the three historical provinces of the Basque Country (Araba, Bizkaia and Gipuzkoa).

The University of Deusto is a university of non-profit social initiative of Christian inspiration. It has a history of recognized prestige in the training of professionals of high qualification who have led some of the most relevant business and institutional initiatives, not only at the Basque Country but also at the Spanish level.

Also of private nature, Mondragon University capitalizes a project with a recognizable idiosyncrasy. Mondragon University is a key agent at the roots of the development of Mondragon Corporation and it is thus characterized by a close relation with the entrepreneurial world with a clear orientation towards transferring knowledge and a firm compromise to change the society.

In total the Basque universities had in the last year with available data (2010-2011) 51,388 undergraduate students and 8,080 postgraduate students (master and doctorate). That accounts for 3.6% and 4.6% of all Spanish university students enrolled in undergraduate and master programs respectively. The percentage of youngsters (between 18 and 24) pursuing an undergraduate degree was 30.9% in 2010-2011, a figure that has increased in recent years and that is well above the Spanish one (24.5%), according to data of the Ministry of Education, Culture and Sport.

Most of the Basque students are enrolled in the public university UPV/EHU, especially at undergraduate and doctoral levels (80%). The competition with private universities in terms of master programmes is higher, and 53% of the master students were enrolled either in the University of Deusto (42%) or in Mondragon University (10%).

Contribution of research to regional innovation

Total R&D expenditure in the Basque Country has significantly increased in recent years, from the 1.44% of the GDP in 2005 to the 2.08% of the GDP in 2010.

The Basque Country efforts in R&D are particularly visible in terms of human resources: the number of researchers (full- time equivalent) in Euskadi grew from 8.1‰ of all employment in 2005 to 11.4‰ in 2010, surpassing the growth in Spain or in the EU15.

The Basque University System, composed by three universities, is complemented by a wide range of scientific actors, such as the Basque Excellence Research Centres (BERC) or the Cooperative Research Centre (CIC), what constitutes a strong environment for high quality research and international competitiveness together with a feasible framework for knowledge transference.

The system counts with an array of mechanisms of different nature and scope for transference, although in some aspects results are far from optimal. It is worth mentioning the Basque Government and other public and private institutions commitment to make significant improvements concerning science in Euskadi, plus the growing effort in improving collaboration between all Basque Innovation System actors.

This contribution is jeopardised because of the limited scientific capacity in certain fields and the poor interconnection between universities. Other concern is the low percentage of GDP

and 176 doctoral students. The University of Navarre also owns in San Sebastian the School of Management Assistants ISSA.

invested in universities R&D&i together with the few incentives for researchers to be engaged in knowledge transfer activities and the lack of technical staff to support research. Other aspect is the insufficient cooperation and networking among technology transfer intermediaries that has as main result the lack of technology transfer and diffusion to many SMEs. Nowadays, with the economic crisis there is an increasing financial uncertainty of the Support of the government in R&D and innovation policy and a brain drain due to unemployment.

But in order to enhance the contribution of research to regional innovation some initiatives are being encouraged as the International Campus Excellence strategy and the capitalisation of the BERCs. These initiatives will help to improve the position to exit crisis through a greater involvement of actors of the Basque innovation system, and the encouragement of partnerships in R&D projects. The strengthening of the public and private system will also be base on the alignment of research with the needs of the Basque competitive sector.

Contribution of teaching and learning to labour market and skills

The Basque higher education system offers a variety of higher vocational training and university graduate and postgraduate degrees that allow a high percentage of the residents in the Basque region to pursue higher education studies. The industrial character of the Basque economy partly determines the prevalence of technical studies and the relative important of vocational training. The relation between Basque HEIs and long-life education are more uneven, with some universities rooted in the Basque productive system and others trying to find its place in it.

The Basque HEIs is facing some global threats as the increasing global competition to attract talented students, the demographic trends and the financial restrictions to innovate.

A common fact is the high percentage of the Basque population with higher education, together with the relative importance of the higher vocational training because of its close relation with the labour market. Indeed, the transition to the EHEA is bringing important changes to the way in which students learn and are taught at HEIs, changing the focus to an integral student formation base on capabilities and more in contact with the labour market. Collaboration between agents is particularly strong, universities, vocational training centres, providers of non-formal education and other stakeholders work closely to make a significant contribution of teaching and learning to labour market skills.

The Basque HEIs also tackled with some unconstructive aspects such as the reduced mobility of students and professors, the little flexibility in the courses offered and the little collaboration with stakeholders to generate courses and design teaching methods.

Contribution to social, cultural and environmental development

The Basque HEI system is particularly concern of their definitive role for the Basque society as knowledge and culture generator. The three universities are concern about environmental, social cohesion and diversity issues, encouraging among the universities students and employees this spirit. The environmental aspect is also pursues both in daily basis and in long term activities and projects. Social inclusion and solidarity are intrinsic values to the Basque universities.

It is positive that Basque universities will join to ongoing projects advocated to put into perspective the role of arts in the configuration of a learned and educated society.

It is true that, little by little, are emerging institutional initiatives. But they are specific elements that still require a great deal of good will and commitment and much effort of awareness in the academic, social and political sector. Basque universities can also make that those initiatives will serve as an incentive for the Basque Country cultural policy.

There is strong concern about the need to collaborate regarding cultural and environmental issues. The collaboration between the HEIs is very weak and has to be improved together with the relation with the business sector, and other private and institutional actors. There is room to establish routes for public- private cooperation and to develop and encourage connections between universities and the new music and arts educational institutions. On the other hand,

joint initiatives for promoting environmental awareness are some of the opportunities within the HEI.

The major threaten of the Basque HEI in the inflexibility in most of the institutions to adapt to social changes and develop initiatives and activities with a clear focus on lines of action in order to improve society concern about culture, environment, and social cohesion.

Capacity building for regional cooperation

HEIs are considered as a key aspect in the Basque Country regional development. The Basque Country has not a unique strategic plan covering relevant aspects concerning regional growth and welfare. In fact, the Basque Government sets up and coordinate several plans in which Basque HEIs are involved in one way or another in the various Basque Plans and strategies.

But one of the main instruments for capacity building are the universities' Social Councils. The Social Council is the universities governing body that ensures the participation of the Basque society at the universities. This council represents, through its members, the various social interests of the Basque Country and the universities community. In fact the Social Council acts as liaison between the university and society conveying to university the society concerns and needs, and leading to society the universities capacities, concerns and needs.

Regarding the evaluation and mapping of the HES impact, in n 2008, the UPV/EHU made a study about the socioeconomic impact of the University on the Basque region. Taking into account a long- term perspective and considering the lasting effects that the UPV/EHU activity has on the allocation of available resources, the best and well- know result is the training of graduates and its direct consequence on the people qualification improvement that represents an increase of the available human capital at the Basque Country. That fact is reflected over higher incomes, more qualified employment, and more value added to the economic activity.

Regarding the short- term, the Basque HES regional impact is consequence of the set of costs associated with the activities of the universities: the payment of the staff, purchases of goods or services, together with the expenditures undertaken by the students as a result of being pursuing academic studies. It has also taken into account the activities promoted by the universities such as congresses and scientific meetings that bring spending to the Basque Country. All these costs produce significant impacts on demand and employment in the university closest environment.

Besides, the UPV/EHU has significantly contributed to the development, promotion and diffusion of the Basque language. The importance of the UPV/EHU is essential in what refers to ensure the realization of the entire educational cycle in Basque.

Moreover, the three Basque Universities are a dynamic element in the Basque Country regional development. In addition to produce qualified personnel and produce and disseminate knowledge, universities also stimulates the geographic area through the support for entrepreneurial activity, knowledge transfer, interaction with companies and the resolution of society problems, and the generation of technological and scientific capabilities.

The University of Deusto also has mechanisms to assess and audit its performance along with brand and image studies. In the case of the Mondragon University it is possible to find four different mechanisms to assess its activity impact.

Concerning regional development, each university strategic approach together with the University Plan 2011-2014 tackles with the commitment of the Basque Country development, not only in educational issues but in aspects such as economic growth, science and technology generation and transference together with culture, multilingual issues, business or gender equality.

Tackling with aspects such as human and financial resources management, the UPV/EHU follows the established regulations for public universities, presenting a regional dimension. The UPV/EHU structure is base on a multi- campus approach in order to be spread all over the Basque Country. The Deusto strategic Plan 2014 raises the challenge of glocalisation, a balanced response to local and global issues. The challenges that are addressed are: teaching-

learning competences and research ensure a pluri-lingual profile (Spanish- Basque- English- Other languages), technological competences and relational competences. Each of the Mondragon University faculties retains its own autonomy which leads to its adaptation to the economic environment in which are locates with absolutely flexibility.

Regarding financial resources, the UPV/EHU is a public body that is completely funded by public sources. Being a private university, University of Deusto funding comes mainly from students' fees. Together with the students' fees, revenues from research and transfer and continuing education are playing an increasingly important role. The programme Contract signed with the Basque Government, the participation in the Basque Innovation Fund, the joint activities with the Biscay Regional Council and the agreements with the Santander bank- Kutxabank- BBVA also have to be considered. Mondragon University funds come from: students' enrolment non- formal training (professional training), competitive research projects, and contracts with firms and the Framework programme signed with the Basque Government.

The three universities present a different cultural approach. The UPV/EHU considers that its new initiative Euskampus represents a new organisational culture focused on international excellence and regional implication. This initiative is firmly backed not only by the University but also by the Basque Government and other public and private important institutions. The Deusto Educational Model is based on teaching- learning of knowledge, competences and values in a model which is interwoven with the Basque social environment. The Mondragon University DNA is based on aspects such as results orientation, efficiency, costumer orientation, collaboration with society and so on. The University faculties have always been much closed to the business world and it is because of that that business management tools are continuously applied to the Mondragon University.

Conclusions

The Basque HEI system has increasingly growth during the last years through the development of new universities and different initiatives concerning education in different fields. There is a strongly networked society with regional identity; the university compromise with the region has also steadily grown, generating a truly engagement with the region enhancement.

Several strengths are present in the Basque Higher Education System. The Basque University System, composed by three universities, is complemented by a wide range of scientific actors, constituting a strong environment for high quality research and international competitiveness together with a feasible framework for knowledge transference. There is a strong commitment of the public sector (Basque Government) to ensure the quality and sustainability of the Basque HES. The Basque HES offers a variety of higher vocational training and university graduate and postgraduate degrees that allow a high percentage of the residents in the Basque region to pursue higher education studies. The Basque HEI system is particularly concern of their definitive role for the Basque society as knowledge and culture generator being social inclusion and solidarity intrinsic values to the Basque universities.

Other aspects are less positive. The collaboration and cooperation between the universities, private and public institutions and business has to be improved; also it has to improve the technology transfer and diffusion to many SMEs from Universities. There is little flexibility in the courses offered, especially for permanent education and little collaboration with stakeholders to generate courses and design teaching methods. Other relevant aspect to work in is the reduced mobility of students and professors and the shortage of actions oriented to talent attraction and retention. Finally, there is a lack of a clearly identification of the Basque regional challenges and needs to be met by the Basque HEIs. The Basque HEIs have to develop initiatives and activities with a clear focus on lines of action in order to improve society concern about culture, environment, and social cohesion, taking a leadership role.

CHAPTER 1 OVERVIEW OF THE REGION

The Basque Country is an autonomous community in northern Spain, which straddles the border between France and the rest of Spanish territory. It includes the Basque provinces of Araba, Bizkaia and Gipuzkoa, also called Historical Territories.

The Basque Country is known as one of the wealthiest autonomous regions in the country and is famous for its important R&D achievements, the important developments in its educational system, high productivity, high GDP per capita, and high quality health care.

The Basque Country or Basque Autonomous Community was granted the status of nationality within Spain, attributed by the Spanish Constitution of 1978. The autonomous community is based on the Statute of Autonomy of the Basque Country, a foundational legal document. The capital is Vitoria- Gasteiz, located in the province of Araba, and Bilbao its largest city, located in the province of Biscay.

1.1 Governance structure

The Basque Autonomous Community enjoys a high level of self-government in matters as important as health, education, security, housing, employment or taxation. On 25th May 1985, the transfer of powers to Basque Autonomous Communities in the field of higher education was started.

This autonomy to decide its own organization stems from the Statute of Autonomy of Gernika, approved by referendum on 25 October 1979, which recognizes the existence of a Government with executive powers and a Parliament with general legislative capacity. Basque country also has two bodies inherited from the traditional Basque codes of rights in each province - the General Assembly, with regulatory and operational capacities similar to parliament, and the Provincial Council, its executive institution. Their existence gives the Autonomous Community a much decentralized organisational structure.

The multi- layered nature of institutional organization in the Basque Country reveals a complex interplay of different forces at autonomous, provincial and local levels. The institutional structure of the Basque Autonomous Community enables foral (i.e., related to the Fueros) representative bodies such as the Juntas Generales and the Diputaciones, provincial organisations with their roots in the historic rights of the three Basque provinces that today make up the Autonomous Community, to coexist with other bodies that cover the entire Community, like the Basque Parliament and the Basque Government.

The way in which the powers of the common administrations are harmonised with those stemming from the traditional codes of rights is regulated both by the Statute of Autonomy itself and by the Historical Territories Act, which makes sure the existence of a general organization is compatible with respect for the historical legal systems of its three territories. Education is ruled by the Basque Government without any interference from Provincial Councils.

Another fundamental pillar of Basque self-government is the Economic Agreement (*Concierto Económico*), the Autonomous Community's financial support system, which gives the Basque institutions autonomy to collect and administer public taxation depending on their own budgets and on agreements signed with the central Spanish administration.

Besides a series of general principles, rules on harmonisation and standards governing collaboration, the Economic Agreement also contains the rules or points of connection that determine when the Basque or common Spanish tax system prevails and which administration is entitled in which cases to exact the taxes.

The Economic Agreement therefore implies the existence of a specific Basque tax system with its own way of regulating the taxes that comprise a general tax system, including, among others, IRPF (income tax), Company Tax and Value Added Tax.

1.2 Geographic situation

The Basque Country runs along the 43rd parallel at the western edge of the Pyrenees Mountains, and is bathed by the Bay of Bizkaia (Cantabria Sea). Basque Autonomous Community occupies a total surface area of 7,234 square kilometres and is home to 2,174,033 people (source EUSTAT 2010); 53% of the population is concentrated in Bizkaia, while Gipuzkoa accounts for 32.3% and Araba, with the largest territory, has 14.7% of the Basque Country inhabitants.

Basque Autonomous Community is well-known as an international connectivity hub with a modern communications infrastructure. Its railways, roads and air transport enable fast, easy connections with the rest of its territory and Europe.

The Basque Country boasts one of the most advanced airport infrastructures of the Spanish state. There are airports in each of three main cities: Loiu Airport in Bilbao, Foronda Airport in Vitoria and Hondarribia Airport in San Sebastian. Vitoria airport is the third Spanish airport in terms of the volume of cargo and represents an important hub for goods transport in the north of the country. It possesses one of the best perishable goods terminals in Europe, and is the air freight consolidation centre of DHL for the Iberian Peninsula and north of Africa. Bilbao airport, specialised in passenger traffic, is the biggest airport in the Basque Country and is the most important in the Cantabrian area.

Bilbao and Pasajes are the two main commercial ports of the Basque Country. These offer modern facilities and represent major centres for the entry and exit of goods with a total annual traffic of almost 44 million tons goods of all kinds from all over the world.

Basque Autonomous Community is endowed with a highly-developed railway infrastructure with nearly 600 km of routes. Spanish Railroads´ National Network (RENFE) connects the Basque Country with the rest of the Spanish state and the main European cities. One of the most ambitious projects of the Basque railroad infrastructure is the high speed train. The project expects to connect the three most important cities of the region in only half an hour.

The Basque Country has more than 4,250 kilometres of motorways, general and regional dual-carriageways and modern access roads to the towns and cities. It communicates with the rest of Europe along routes E-05 (Paris - Madrid- Algeciras), E-70 (A-8) (Bilbao- Bordeaux- Lyon- Turin) and E-80 (A-68) (Lisbon- Madrid- Toulouse- Rome). For communications within the Basque Country and with the rest of the Spanish state, there is a dense road network with multiple accesses to roads such as the Bilbao- Zaragoza motorway (AP-68), the Bilbao-Behobia motorway (A-8) and the Eibar-Vitoria-Gasteiz motorway (AP-1).

Regarding the supporting communications infrastructure for the Scientific environment, the i2Basque Network and the IRIS network (Spanish network for interconnection), provide top-level support for access to the main research and international commercial networks. This network offers external connectivity with other research and academic networks in Europe and takes part in the GÉANT pan- European IP network project.

1.3. Demographic trends

The Basque population has grown over the past years with an average annual growth rate of 0.45% from 2.08 million in 2000 to 2.17 million in 2010, representing 4.6% of the total Spanish population. The distribution of population among the provinces is unequal. The province of Bizkaia brings a greater percentage of the population, accounting for about 53% of the Basque population. The participation of Bizkaia in the total population of the Basque Country has been declining steadily since 2000, while the province of Araba has gained weight (from 13.7% in 2000 to 14.7% in 2010). The weight of Gipuzkoa has remained almost constant. The Basque Country is the seventh most populated region in Spain.

Table 1.1. Population change in the Basque Country (2000 – 2010)

	Basque Country	Araba		Bizkaia		Gipuzkoa	
		Total	%	Total	%	Total	%
2010	2,174,033	318,730	14.7%	1,152,406	53.0%	702,897	32.3%
2009	2,169,038	317,016	14.6%	1,151,704	53.1%	700,318	32.3%
2008	2,162,944	313,560	14.5%	1,151,113	53.2%	698,271	32.3%
2007	2,147,754	309,786	14.4%	1,144,420	53.3%	693,548	32.3%
2006	2,130,996	305,732	14.3%	1,137,948	53.4%	687,316	32.3%
2005	2,115,383	301,800	14.3%	1,127,291	53.3%	686,292	32.4%
2004	2,104,396	298,166	14.2%	1,122,410	53.3%	683,820	32.5%
2003	2,095,014	294,012	14.0%	1,119,697	53.4%	681,305	32.5%
2002	2,089,950	291,038	13.9%	1,119,849	53.6%	679,063	32.5%
2001	2,085,058	287,560	13.8%	1,120,591	53.7%	676,907	32.5%
2000	2,079,210	284,596	13.7%	1,122,180	54.0%	672,434	32.3%

Source: EUSTAT

The Basque Country is made up of 251 municipalities (figures for 2010), of which 84.1% have less than ten thousand inhabitants; these municipalities contain 20.4% of the Basque population, while municipalities with between 10,000 and 50,000 inhabitants represent 13.5% and contain 33.0% of the population. There are three municipalities with more than 50,000 inhabitants and less than 100,000 (Barakaldo and Getxo in Gran Bilbao, the Bilbao conurbation, and Irun, in Donostialdea, the Donostia conurbation): they gather 11% of the population. The three municipalities with over 100,000 inhabitants - Bilbao (16.3%), Donostia (8.4%) and Vitoria-Gasteiz (10.9%) - contain 35.6% of the Basque population. The evolution of the population of the three cities has been quite different: in the last 29 years the population of Bilbao has persistently go down until the mid 2000s that the tendency reverted; Donostia has experienced an slight increase of its population and Vitoria-Gasteiz is the city that experienced the largest growth, 25.1% since 1981.

Table 1.2. Basque population in the largest cities

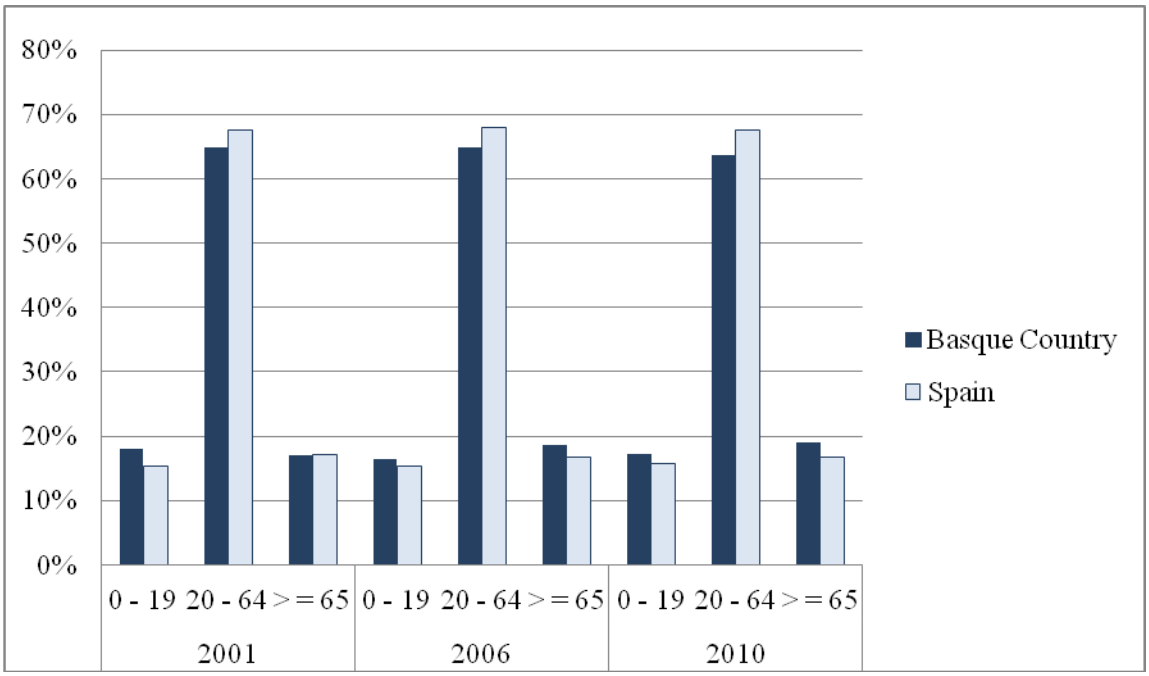
	1981	1991	2001	2010	Change 1981-2010
Bilbao	393,821	369,839	349,972	353,296	-10.3%
Donostia	169,228	171,439	178,377	182,094	7.6%
Vitoria-Gasteiz	189,533	206,116	216,852	237,150	25.1%

Source: EUSTAT

The demographic weight of large municipalities is lower in the Basque Country than in Spain: while the Basque municipalities over 100,000 people account for 1.2% of all municipalities and contain 35.6% of the population, this group of municipalities represents 0.8% of all Spanish municipalities and contains 39% of its population.

The demographic distribution by age groups is similar in the Basque Country and in Spain with the age group of people between 20 and 64 years old accounting for the higher share of the total population in both areas, although higher percentages of people under the age of 20 and older than 65 can be found in the Basque Country. The percentage of persons who aged between 20 and 64 years old is lower in the Basque Country than in Spain. The demographic distribution by age groups followed an opposite behaviour: (1) the percentage of persons under the age of 20 has reduced in the Basque Country by 0.9% and has increased in Spain by 0.3%; (2) the proportion of people who aged between 20 and 64 years has decreased in the Basque Country by 1.2% but has remained the same in Spain; (3) the share of the total population in the age group > 65 years increased in the Basque Country by 2.2% and has reduced in Spain by 0.2%.

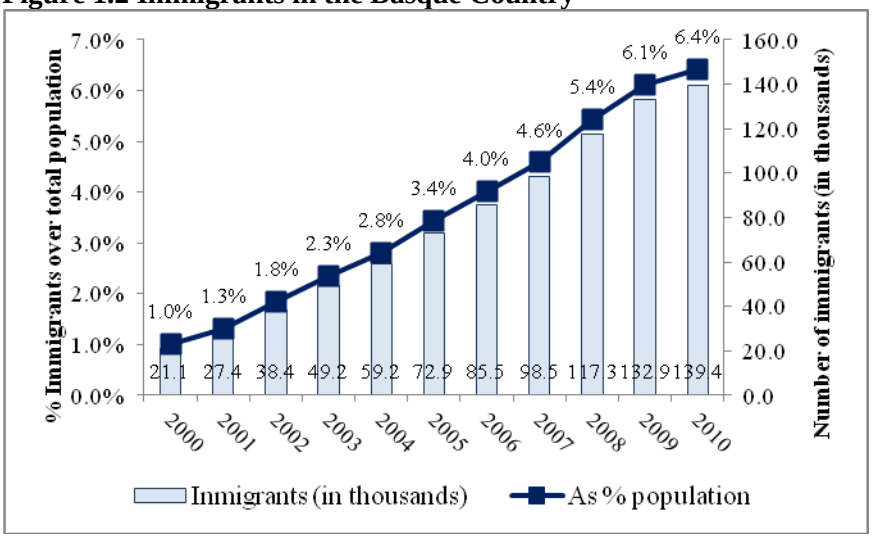
Figure 1.1. Evolution of population distribution by age groups (2001-2010)



Source: EUSTAT and INE

The Basque Country is not an important region in terms of foreign migration flows. In 2010, immigrants coming to the Basque Country accounted for 3.7% of all foreign immigrants coming to Spain. In spite of this, the number of immigrants in the Basque Country has grown rapidly from 21,140 immigrants in 2000 (1% of the total population) to 139,369 in 2010 (6.4% of the total population). The origin of the immigrants in the Basque Country is mainly Latin-America (44.1%, in particular Colombia with 9.2% of the immigrants, Bolivia with 8.6%, and Ecuador with 5.3%), the EU (25.7%, in particular Rumania with 10.9% of the immigrants and Portugal with 6.7%), and the Maghreb (14.3%, in particular Morocco with 10.4% of the immigrants).

Figure 1.2 Immigrants in the Basque Country



Source: Ikuspegi, Basque Observatory of Immigration

In 2010, 49.3% of the foreign born were located in Bizkaia province (6% of its population), followed by Gipuzkoa that accommodated 30.5% of the immigrants (6% of its population) and Araba with 20.2% of the immigrants (8.9% of its population). The immigrant population concentrates in the three largest cities, especially in Araba, where Vitoria-Gasteiz attracts 83%

of the immigrant population of the province. The increase of immigrants was therefore responsible for the whole population growth in the Basque Country, although the crisis has stopped or even reversed this process.

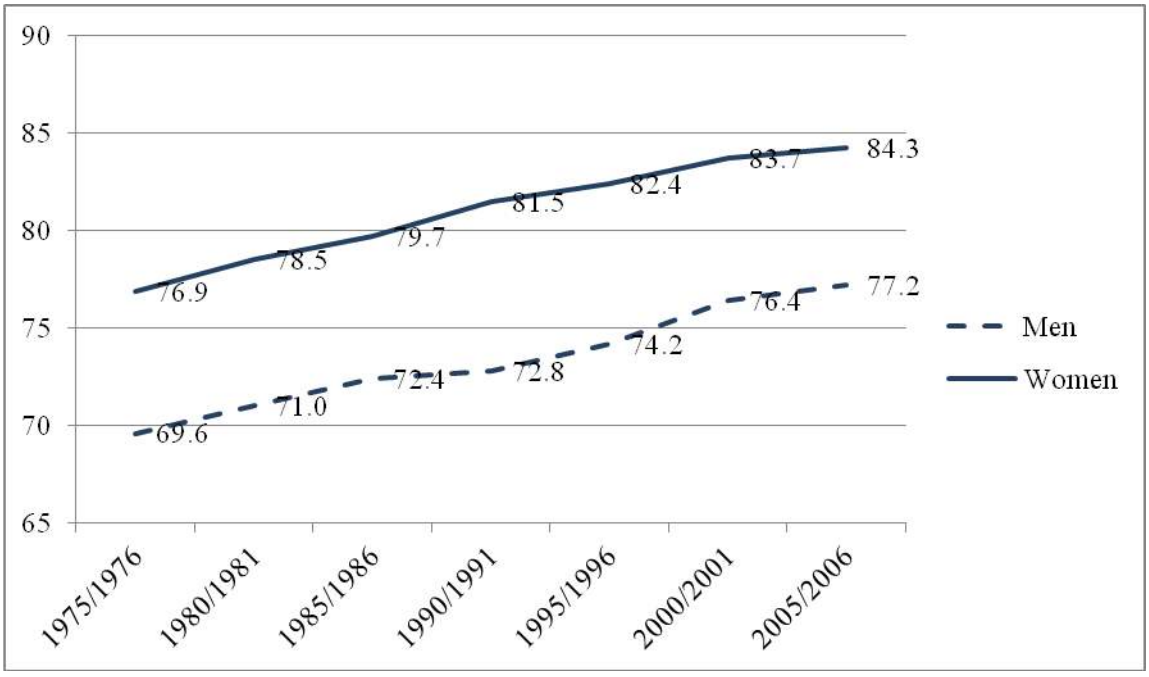
Table 1.3. Distribution of the immigration (year 2010)

Bizkaia	Gipuzkoa	Araba
68,710	42,449	28,210
Bilbao	Donostia	Vitoria-Gasteiz
28,385	12,352	23,445
% of immigration in the main city		
41%	29%	83%

Source: Ikuspegi, Basque Observatory of Immigration

Life expectancy at birth in the Basque Country in 2007 was 81.7 years, higher than the Spanish average (81.05 years) and the European Union average (78.96 years). In the period 1995 – 2007, life expectancy of the Basque population increased by 3.4 years. This means a rise higher than the EU average, where the increase was 1.8 years, and the Spain average, where the life expectancy increased by 3.1 years. The evolution of life expectancy over the period 1995-2006 has increased more for man (3.0 years, reaching 77.2 years) than for women (1.9 years, reaching 84.3 years) in the Basque Country.

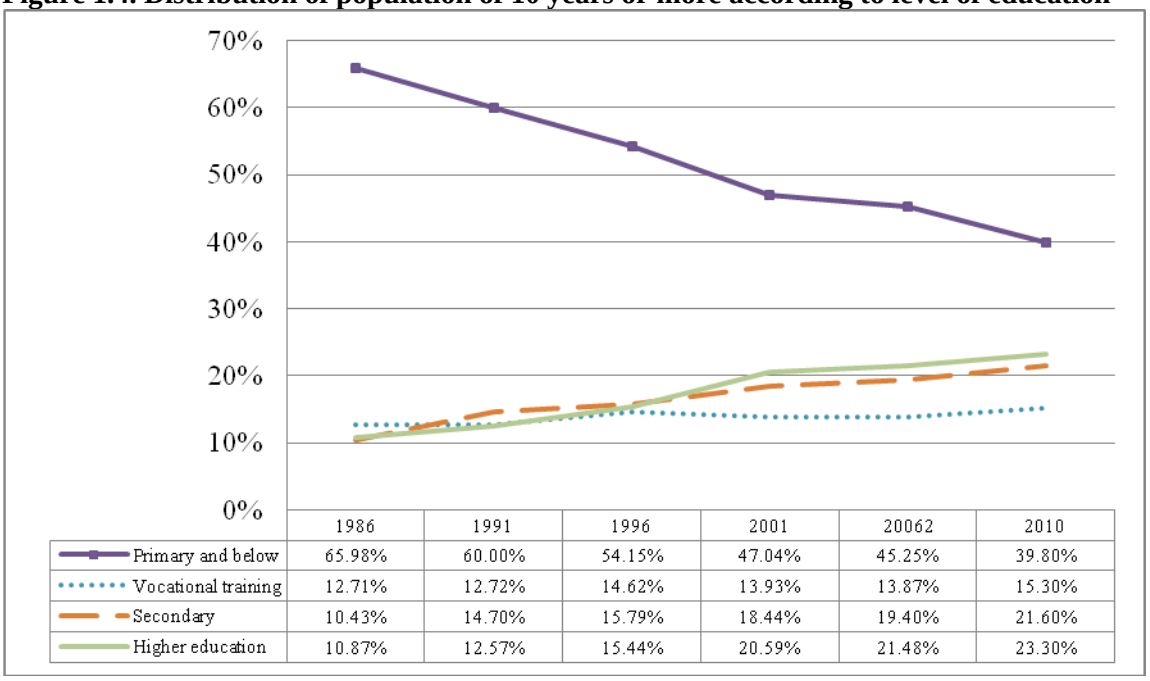
Figure 1.3. Evolution of the life expectancy at birth. Period 1995 – 2006



Source: EUSTAT

The percentage of population older than 10 with higher education in the Basque Country has increased steadily between 1986 and 2010, from 10.9% to 23.3%. People with secondary education have also increased, from 10.4% in 1986 to 21.6% in 2010. The percentage of illiterate people in the Basque Country has been reduced significantly, accounting in 2010 for 0.5% of the population of the region. Similarly, the percentage of people who have not competed primary education (e.g. people without studies) has reduced to 2.9% in 2010.

Figure 1.4. Distribution of population of 10 years or more according to level of education

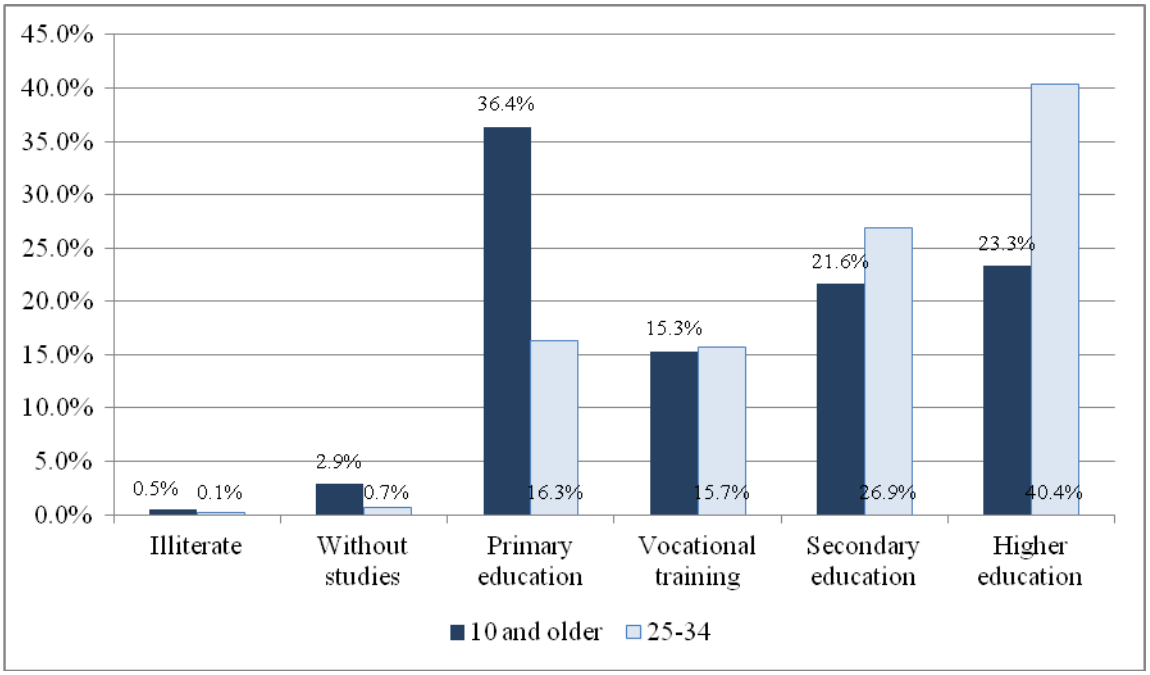


	1986	1991	1996	2001	20062	2010
Primary and below	65.98%	60.00%	54.15%	47.04%	45.25%	39.80%
Vocational training	12.71%	12.72%	14.62%	13.93%	13.87%	15.30%
Secondary	10.43%	14.70%	15.79%	18.44%	19.40%	21.60%
Higher education	10.87%	12.57%	15.44%	20.59%	21.48%	23.30%

Source: EUSTAT

The previous figures reflect the composition of the population. When looking at the younger generations (25 to 34 years old in 2010), the percentage of individuals with highest education level as primary o below goes down to 17.1% while the percentage with higher education grows to 40.4%.

Figure 1.5. Educational level, by age group (year 2010)

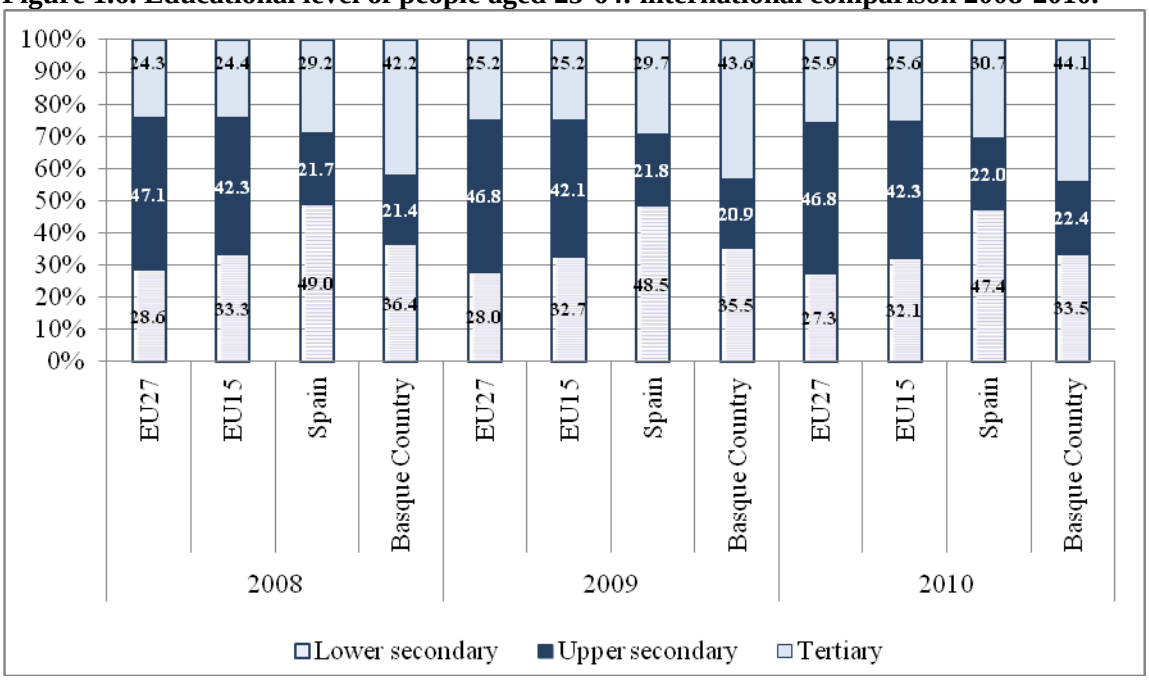


Source: EUSTAT

For comparative purposes, EUROSTAT provides data on the educational attainment for people aged 25-64 disaggregated at regional level for the period 2008-2010. The Basque Country shows a higher percentage of population with tertiary education (university and upper vocational training) than the average for the EU27, the EU15 or Spain: in 2010 44.1% of the

Basque population aged 25-64 had a level of tertiary education, while the figure was 30.7% for Spain, and 25.6% for the EU15 (25.9% for the EU27). At the same time the percentage of people with secondary education is well below the European figure although in line with the Spanish one.

Figure 1.6. Educational level of people aged 25-64: international comparison 2008-2010.



Source: EUROSTAT

Limited access to education or training is as much as a problem as in the rest of the European Union. Although there is no data specific to the Basque Country, EUROSTAT provides the percentage of the population between 18 and 24 years old neither in employment nor in education or training (NEET) for the wider NUTS1 region, North East Spain (that includes Navarre, Rioja and Aragón in addition to the Basque Country). According to this source, 16.2% of the youngsters between 18 and 24 in North East Spain were NEETs in 2011, figure that is in the average for the EU15 and well below the percentage for Spain. The growth in the percentage of NEETs from 2008 to 2011 can be associated to an increase in the unemployment rates for this group of population.

Table 1.4. Young people (18-24) neither in employment nor in education and training (NEET), as percentage of the population of that age

	2008	2009	2010	2011
EU27	13.9	16.1	16.5	16.7
EU15	14.2	16.2	16.4	16.4
Spain	17.0	22.6	22.4	23.1
North East Spain*	12.2	16.0	14.6	16.2

*This is the NUTS 1 area that includes the Basque Country, Navarre, Rioja and Aragón.
Source: EUROSTAT

1.4. Economic Trends

The size of the Basque economy, as measured by the GDP, reached 64,464 million Euros in 2010 that is 6.1% of the Spanish GDP.

Table 1.5. GDP and GVA Spain and Basque Country (year 2010)

	Spain	Basque Country	Basque Country as % Spain
GDP	1,051,342	64,464	6.1%
GVA	961,592	58,961	6.1%
GVA High and Medium-High Technology	35,181	4,341	12.3%
GVA High and Medium-High Technology as % GVA	3.7%	7.4%	

Note: in million Euros
Source: INE

Although the evolution of the GDP has been similar in the Basque Country and Spain (with an average yearly growth of 5.4% in the Basque Country and 5.6% in Spain since 1996), the evolution of the population has been quite different (with an average yearly growth rate in the last ten years of 0.4% in the Basque Country and 1.3% in Spain) and therefore the GDP per capita has tended to diverge between the Basque Country and Spain: in 2001 the GDP per capita was 23% higher in the Basque Country than in Spain while this figure has grow to 36% in 2010. The economic crisis, if anything, has increased such differences. With respect to the EU27, the GDP per capita of the Basque Country has been on average 30% above the European during the last ten years (from 2001 to 2010). The economic crisis has tended to slightly reduce this gap, being the Basque GDP per capita 33% higher than in the EU27 in 2010 from a maximum of 38% in 2008. Actually the Basque GDP per capita decreased in 3.5% in 2009 and increased only in 2.1% in 2010, well below the growth rates of the pre-crisis years (on average 6.5%).

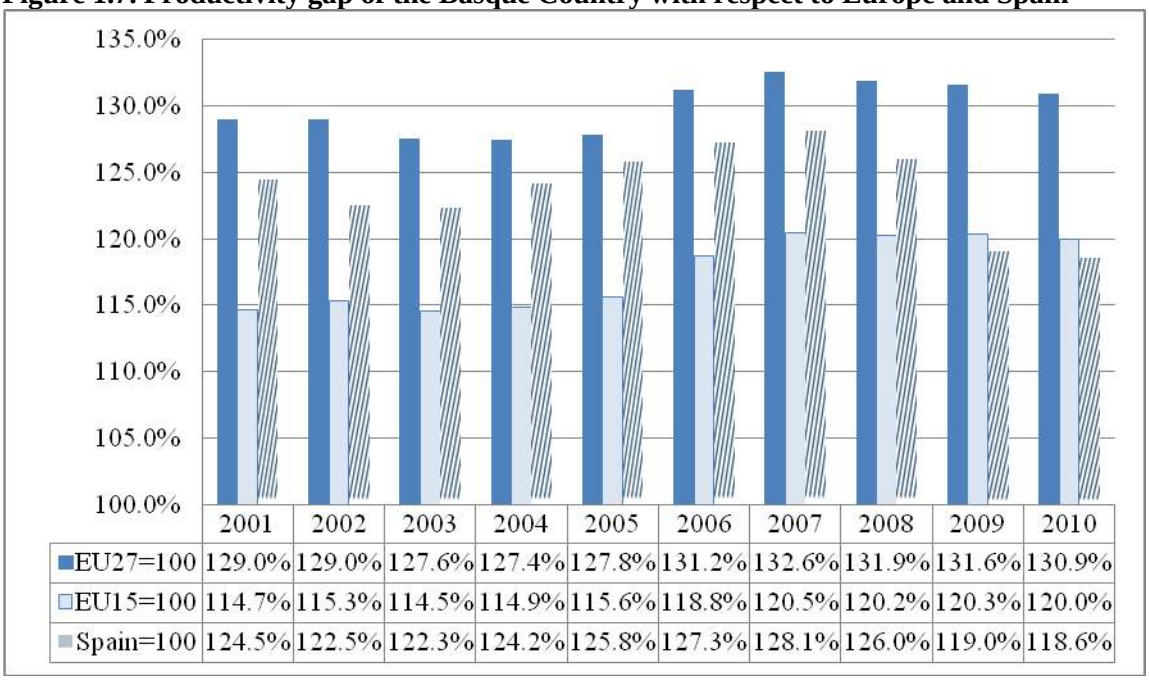
Table 1.6. Evolution of GDP per capita compared to EU and Spain

Year	EU 27=100		Spain=100
	Basque Country	Spain	Basque Country
2001	120%	98%	123%
2002	124%	101%	123%
2003	125%	101%	123%
2004	126%	101%	125%
2005	129%	102%	127%
2006	134%	105%	129%
2007	137%	105%	130%
2008	138%	103%	133%
2009	135%	103%	134%
2010	133%	101%	136%

Source: EUSTAT, INE, and EUROSTAT.

The productivity of the Basque Country (GDP over total employment) has been well above the average productivity for Spain or Europe. Compared to the EU27 the productivity per worker is on average 30% higher in the Basque Country, while the gap is of 23.8% with respect to Spain and of 17.5% with respect to the EU15. The gap has remained stable with respect to Europe but has decreased with respect to Spain after the crisis. Part of the high productivity level is due to the productive specialization in sectors of higher productivity: the value added of the production in high tech and medium-high tech firms in the Basque Country accounts for 12.3% of the value added in these sectors for the whole Spanish economy.

Figure 1.7. Productivity gap of the Basque Country with respect to Europe and Spain



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU27=100	129.0%	129.0%	127.6%	127.4%	127.8%	131.2%	132.6%	131.9%	131.6%	130.9%
EU15=100	114.7%	115.3%	114.5%	114.9%	115.6%	118.8%	120.5%	120.2%	120.3%	120.0%
Spain=100	124.5%	122.5%	122.3%	124.2%	125.8%	127.3%	128.1%	126.0%	119.0%	118.6%

Source: EUSTAT, INE, and EUROSTAT.

The Basque Country shows a relative specialization in manufacturing. Its share on the total GVA was in 2010 of 22.7%, ten points above the relative importance of the sector in Spain and more than seven points above its relative importance in the EU27. However the participation of this sector has decreased steadily in the last ten years. As a counterpart, the service sector has increase its relative importance accounting for 63.4% of the GVA in 2010.

Table 1.7. Relative weight of the economic sector on the total GVA

	2000			2005			2010		
	Basque Country	Spain	EU-27	Basque Country	Spain	EU-27	Basque Country	Spain	EU-27
Agriculture	1.9%	4.4%	2.3%	1.3%	3.2%	1.8%	1.1%	2.7%	1.7%
Energy	3.2%	2.8%	2.8%	4.1%	2.8%	2.9%	3.7%	3.1%	3.2%
Mannufacturing	28.4%	18.1%	19.2%	25.5%	15.4%	17.1%	22.7%	12.6%	15.5%
Construction	7.2%	8.3%	6.0%	9.6%	11.5%	6.5%	9.0%	10.1%	6.4%
Services	59.3%	66.4%	69.8%	59.5%	67.1%	71.7%	63.4%	71.7%	73.2%

Source: INE, and EUROSTAT.

In the manufacturing sector, the specialization in the Basque Country is in the production of basic metals and elaborated metal products, and machinery and equipment which represent respectively 32% and 12.6% of the total manufacturing GVA. The Basque GVA in machinery and equipment represents 21% of the total GVA in this subsector in Spain. The relative importance of the food and beverage, textile and chemical products sectors is lower in the Basque Country than in the rest of Spain or in Europe in general. The sectors of medium and high technology represented in 2010 for the Basque Country 7.4% of the total GVA while in Spain they represented 3.7%. Most of this GVA corresponds in the Basque Country to the machinery and equipment sector.

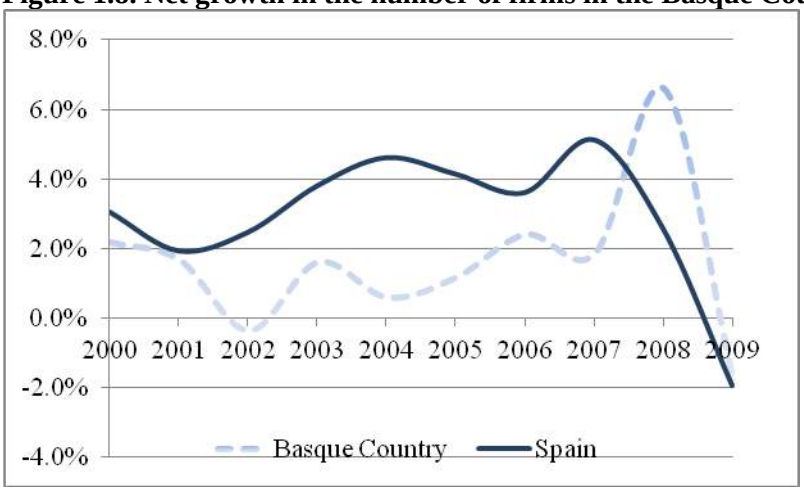
Table 1.8. Distribution of GVA in the manufacturing sector. Year 2009.

	Basque Country	EU27	EU15	Spain
Food products, beverages and tobacco	7.8%	14.3%	14.1%	19.1%
Textiles, wearing apparel, leather and related products	0.9%	4.3%	4.2%	4.4%
Wood, paper, printing and reproduction	6.9%	7.4%	7.3%	7.9%
Coke and refined petroleum products	1.7%	1.1%	1.0%	1.0%
Chemicals and chemical products	3.5%	11.2%	11.6%	10.3%
Rubber and plastic products and other non-metallic mineral products	11.4%	9.3%	9.1%	11.8%
Basic metals and fabricated metal products, except machinery and equipment	32.0%	13.8%	13.9%	15.2%
Computer, electronic and optical products	2.3%	4.4%	4.4%	2.0%
Electrical equipment	5.1%	5.3%	5.3%	3.7%
Machinery and equipment n.e.c.	12.6%	10.7%	11.0%	6.0%
Motor vehicles, trailers, semi-trailers and of other transport equipment	10.3%	9.2%	8.9%	9.5%
Furniture; jewellery, musical instruments, toys; repair and installation of machinery and equipment	5.5%	9.1%	9.2%	9.1%

Source: EUSTAT, and EUROSTAT

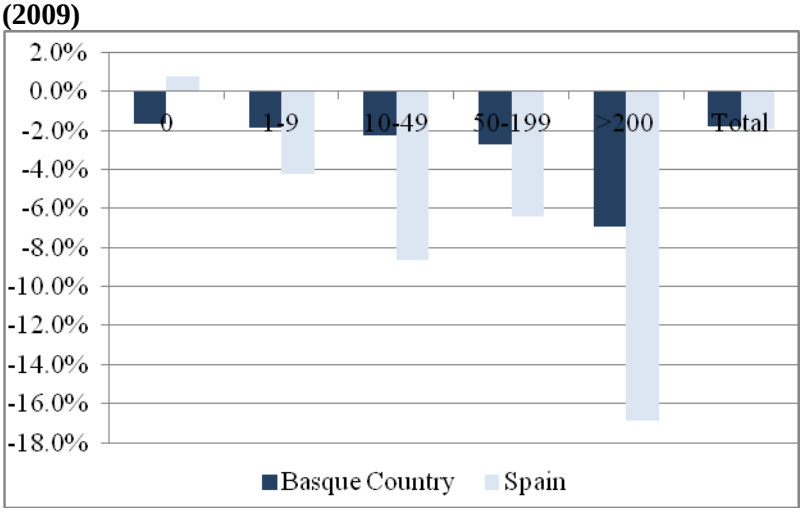
The firm's structure in the Basque Country is characterized by a high percentage of SMEs: out of the 171,345 firms registered in 2010, 93.3% were micro firms (less than 10 employees), 5.6% small (between 10 and 49 employees), 1% medium (between 50 and 249 employees), and 0.2% large (more than 249 employees). This number is quite similar to the one for the EU27 or Spain, where 99.8% and 99.9% of the firms were SMEs. In terms of employment, SMEs in the Basque Country employ 72.5% of all the work force, a figure similar to that of Spain but higher than the European one that is around 67%. The size structure of Basque firms has remained stable during the last decade in spite of the steady growth that its number experienced during the last ten years. The effect of the economic crisis is visible for the last year with information available, 2009: a total of 3,151 firms disappeared in the Basque Country of which 91.4 were micro firms. This evolution contrasts with the rest of Spain, where the effects of the crisis showed before and the destruction has concentrated in firms with more than 10 employees.

Figure 1.8. Net growth in the number of firms in the Basque Country and Spain



Source: INE

Figure 1.9. Net growth in the number of firms in the Basque Country and Spain, by size (2009)



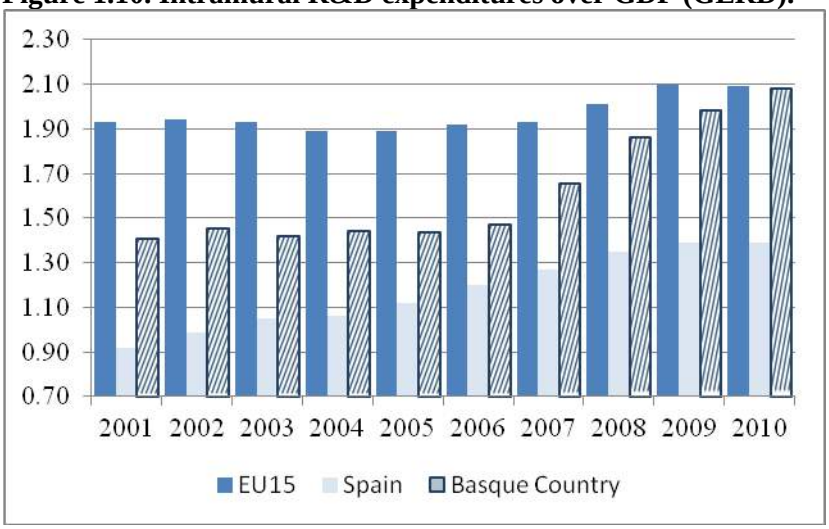
Source: INE

A particular characteristic of the business structure in the Basque Country is the important presence of cooperatives. The largest in the Basque Country is Mondragon Corporation Cooperative (MCC), being the seventh largest business group in Spain. MCC is constituted by 281 firms and cooperatives, and employs 83,569 workers (8.9% of all workers in the Basque Country in 2011) in the areas of industrial production, finance, distribution, and R&D and education. The MCC turnover for 2011 reached 14,832 million Euros and it plays an important role in the Basque innovation system: 14 technological centres and R&D units form part of the Corporation as well as a University (Mondragon University), employing 1,885 researchers in 2011; 9.1% of the VA that MCC generates in the industrial area was devoted to R&D investments in 2011.

Exports in the Basque Country have been growing strongly since the 80's, with the exception of 2009, where they decreased more than 26% with respect to the previous year. During the last ten years, on average, metal products, machinery and equipment and transport equipment accounted for 71% of the total export flow.

The Basque Country has made a strong effort in R&D in the last decades. In 2001 the expenditure in intramural R&D was of 1.41% of the GDP, well below the European levels (1.87% for the EU27 and 1.93% for the EU15) although above the Spanish figure (0.92%). Ten years later, in 2010, the Basque GERD increased to 2.08%, similar to the EU15 average (2.09%) and above the Spanish figures (1.39% respectively). The Basque R&D intramural (internal) expenditure is around 9% of total R&D expenditure in Spain.

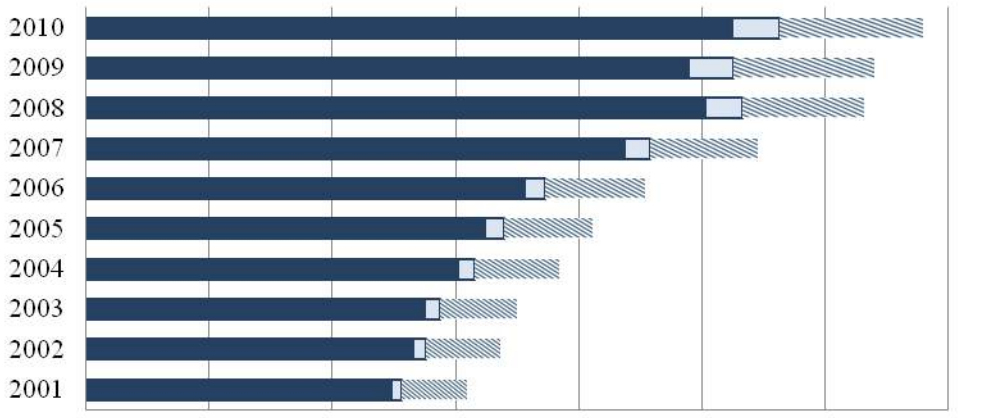
Figure 1.10. Intramural R&D expenditures over GDP (GERD).



Note: Intramural R&D expenditures include all expenditures for R&D performed within a statistical unit or sector of the economy during a specific period, whatever the source of funds.
Source: EUSTAT and EUROSTAT

Most of the R&D expenditure is made by the private sector: in 2010, 77.1% of the total R&D expenditures were made by this sector. This percentage is well above the corresponding one for Europe (62.5% for the EU27 and 63.1% for the EU15) and Spain (51.6%). The contribution of the higher education sector was in 2010 of 17.2% below its contribution in Europe (around 24%) or in Spain (28.3%). This percentage has remained relatively constant in the last ten years.

Figure 1.11. Intramural R&D expenditures by sector.

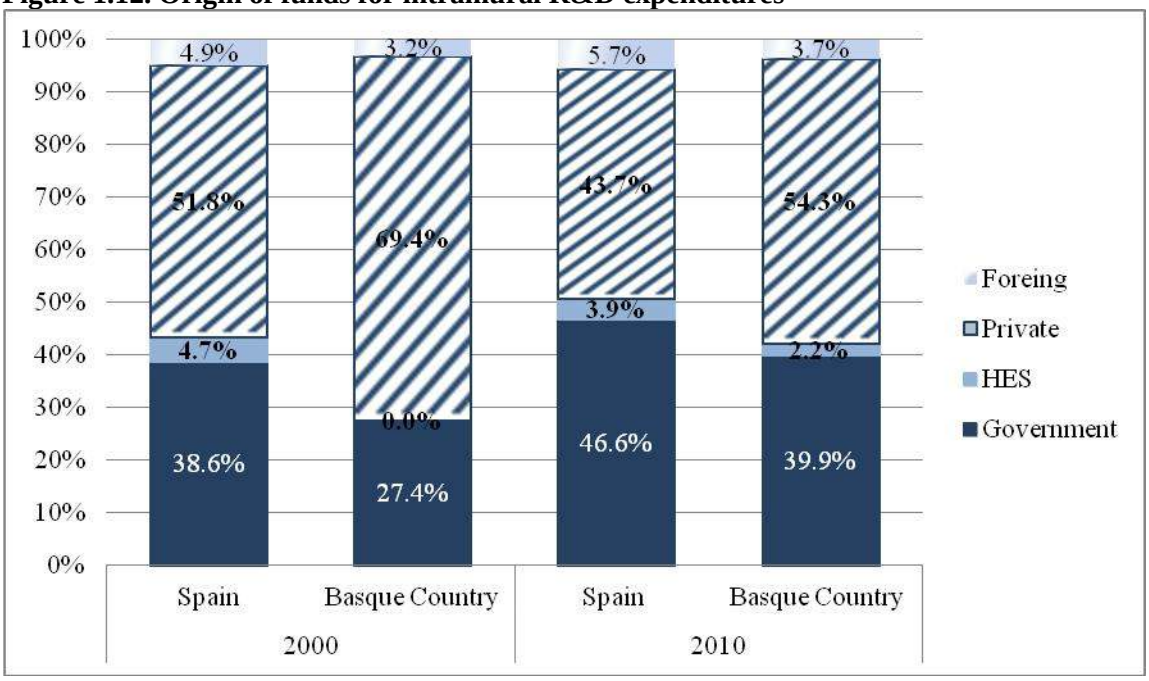


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Private	494,783	530,930	550,086	603,251	647,554	711,765	873,467	1,005,4	977,924	1,048,5
Government	17,502	20,394	24,799	28,184	31,086	33,839	42,377	60,372	72,610	77,246
HES	106,763	120,780	125,074	137,449	144,819	162,118	174,421	198,073	230,382	234,486

Note: in thousand Euros. Intramural R&D expenditures include all expenditures for R&D performed within a statistical unit or sector of the economy during a specific period, whatever the source of funds.
Source: EUSTAT

The sources of funding of R&D are in the Basque Country mainly private, although the public contribution has increased in more than ten percentage points between 2000 and 2010. In 2010, 54.3% of the funds for R&D in the Basque Country came from the private sector while 39.9% came from the government. In Spain the two financing sources are more even, the government financing 46.6% of all expenditures and the private sector 43.7%.

Figure 1.12. Origin of funds for intramural R&D expenditures



Source: INE and EUSTAT

The labour force in the Basque Country has remained on average stable since 2005. The working population in 2010 was of 938,800 individuals, 5.1% of the total employed population in Spain. The effects of the economic crisis can be seen especially in 2009 when the number of employed people decreased 6.4% and the number of unemployed increased in 68%. However these effects are smaller and less long lasting than in Spain that shows no sign of recovery at the end of the period. In 2010, just 2.4% of all the unemployed in Spain were in the Basque Country.

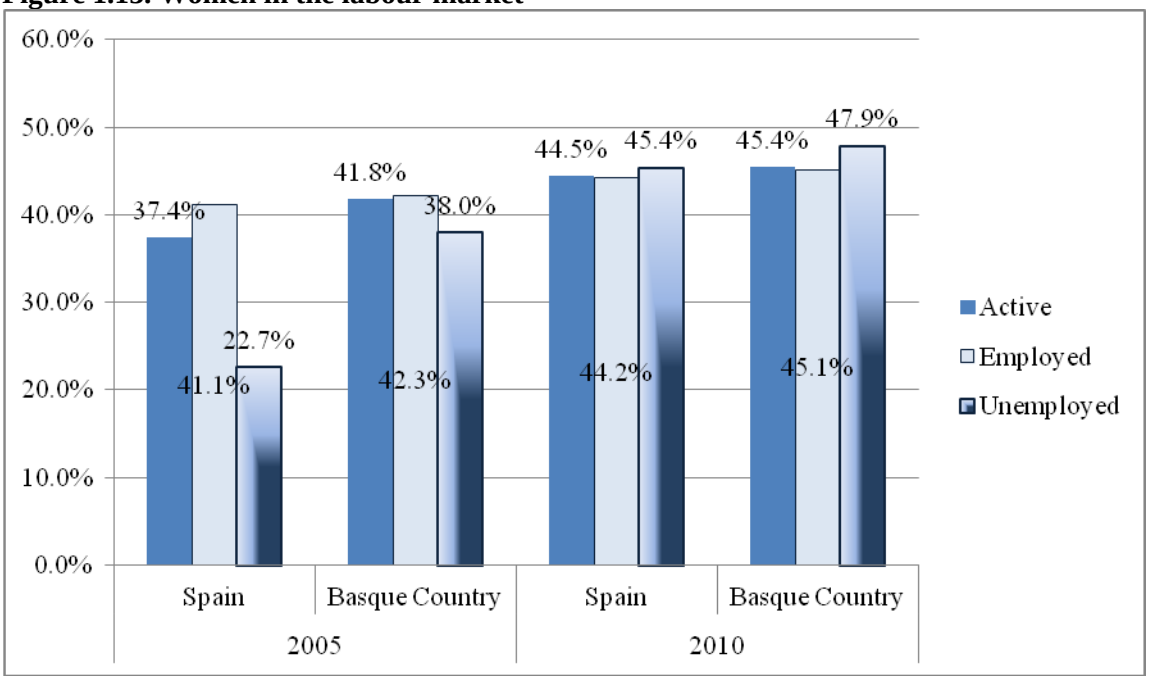
Table 1.9. Labour market size (in thousands)

	Economically active			Employed			Unemployed		
	Spain	Basque Country	Ratio	Spain	Basque Country	Ratio	Spain	Basque Country	Ratio
2005	20,885.7	1,034.1	5.0%	18,973.2	958.2	5.1%	1,912.5	75.8	4.0%
2006	21,584.8	1,058.7	4.9%	19,747.7	984.9	5.0%	1,837.1	73.8	4.0%
2007	22,189.9	1,055.1	4.8%	20,356.0	990.6	4.9%	1,833.9	64.5	3.5%
2008	22,848.2	1,063.9	4.7%	20,257.6	995.3	4.9%	2,590.6	68.6	2.6%
2009	23,037.5	1,047.6	4.5%	18,888.0	932.0	4.9%	4,149.5	115.6	2.8%
2010	23,088.9	1,049.4	4.5%	18,456.5	938.8	5.1%	4,632.4	110.7	2.4%

Note: ratio= Basque Country/Spain
Source: INE

Women constituted in 2010 45.4% of the Basque population in the labour force, 45.1% of the employees and 47.9% of the unemployed. These figures show an increase in the participation of women in the labour force, but also an increase in their participation in unemployment. Compared to Spain, the differences in women participation in 2005 were substantial but they have decreased and the labour situation from a gender point of view is quite similar to that of the Basque Country.

Figure 1.13. Women in the labour market



Source: INE

With respect to other labour market indicators the Basque Country shows a clear improvement in the last ten years, being now closer to the EU27 average than to Spain. That is the case for the employment rate (including female employment) and in particular for the unemployment figures. The Basque unemployment rate is 10.5 p.p. below the Spanish rate and the long term unemployment is half the Spanish one. Youth unemployment (of those 16-24 years old) is a pervasive problem in the Basque labour market as in Spain or the rest of Europe. The situation of the young has worsen with the crisis, the youth unemployment rate being 30.3% in 2010, ten percentage points above the EU27 rate but also ten percentage points below the Spanish rate.

Table 1.10. Main labour market indicators

	Employment rate (16-64 years old)									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU 27	62.6	62.4	62.6	63.0	63.5	64.5	65.4	65.9	64.6	64.2
Spain	57.8	58.5	59.8	61.1	63.3	64.8	65.6	64.3	59.8	58.6
Basque Country	59.6	62.7	63.6	64.5	65.4	66.5	67.2	67.6	65.2	65.1
	Female employment rate (16-64 years old)									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU 27	54.3	54.4	54.9	55.6	56.3	57.3	58.3	59.1	58.6	58.2
Spain	43.1	44.4	46.3	48.3	51.2	53.2	54.7	54.9	52.8	52.3
Basque Country	45.7	49.4	51.6	53.9	54.8	57.0	57.4	58.9	58.2	58.7
	Unemployment rate (16-74 years old)									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU 27	8.5	8.9	9.0	9.1	8.9	8.2	7.1	7.0	8.9	9.6
Spain	10.3	11.1	11.1	10.6	9.2	8.5	8.3	11.3	18.0	20.1
Basque Country	9.8	8.3	8.6	7.8	5.7	4.1	3.3	3.8	8.1	9.2
	Youth Unemployment rate (16-24 years old)									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU 27	17.8	18.4	18.5	18.7	18.6	17.4	15.5	15.6	19.9	20.9
Spain	21.1	22.3	22.7	22.0	19.7	17.9	18.2	24.6	37.8	41.6
Basque Country	21.3	22.2	23.4	24.5	19.1	20.8	17.1	19.2	31.5	30.3
	Long term unemployment									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU 27	3.9	4.0	4.1	4.2	---	3.7	3.1	2.6	3.0	3.8
Spain	3.7	3.7	3.7	3.4	2.2	1.8	1.7	2.0	4.3	7.3
Basque Country	4.3	3.1	2.8	2.9	2.0	1.4	0.8	0.9	1.9	3.8

Source: EUSTAT and EUROSTAT

In concordance with the GVA distribution among sectors, there is a larger fraction of employment concentrated in manufacturing than in Spain: 21.8% of the employed population work in the manufacturing sector in the Basque Country, while this percentage for Spain is of 13.0%. The relative importance of this sector has tended to decrease in the last decade, reducing its weight in the total employment in 4.6 p.p., the same loss than in Spain as a whole. The only sector that has experienced an upper trend in its weight in total employment is the services sector that in 2009 represented 67.8% of the total employment. Employment in construction and agriculture in the Basque Country is consistently below than in Spain.

Table 1.11. Relative weight of the economic sector on the total employment

	2000		2005		2009	
	Basque Country	Spain	Basque Country	Spain	Basque Country	Spain
Agriculture	3.0%	6.5%	2.6%	5.1%	2.0%	4.4%
Energy	0.6%	0.7%	0.7%	0.7%	0.7%	0.7%
Manufacturing	26.4%	17.4%	24.9%	15.5%	21.8%	13.0%
Construction	8.1%	10.9%	9.2%	12.0%	7.8%	9.4%
Services	61.9%	64.4%	62.7%	66.6%	67.8%	72.6%

Source: INE

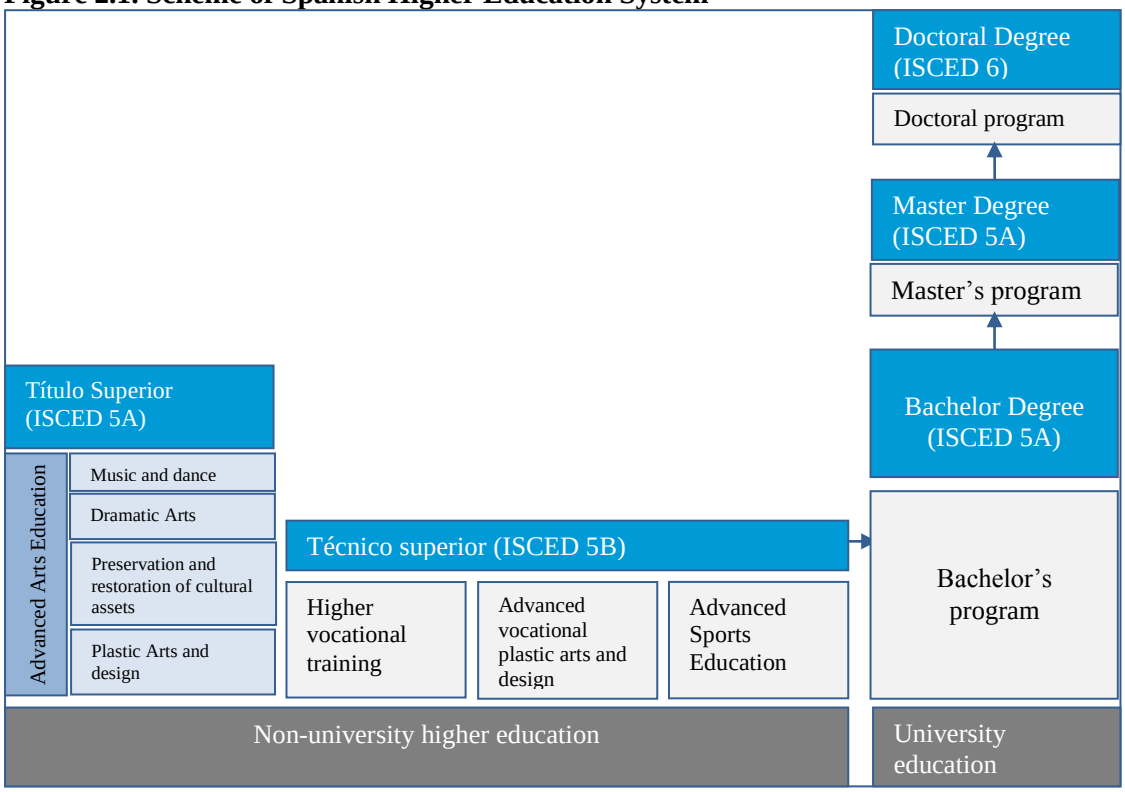
CHAPTER 2 CHARACTERISTICS OF THE HIGHER EDUCATION SYSTEM

2.1 Structure of the higher education system in Spain

2.1.1 Higher education system overview

Spain's higher education system consists of both university and non-university institutions. Non-university higher education consists of post-secondary higher vocational training *(Formacion profesional de grado superior)* and specialized higher education (Art and Design, Sports, Religious or Military education).

Figure 2.1. Scheme of Spanish Higher Education System



Source: Ministry of Education, Culture, and Sports

Universities are regulated by specific University Organic Laws. Non-university higher education is regulated by the Organic Law on Education, which also regulates pre-school, primary and secondary education and professional certificates for the visual arts and design, advanced art training, languages, sport and adult education.

Higher vocational education encompasses a series of modular training courses (*ciclos formativos de grado superior)* that vary in duration (one or two years). It includes higher vocational training as well as advanced vocational plastic arts and design and advanced sports education. Students enrol in these courses after finishing secondary education. These courses comprise different theoretical and practical areas of knowledge depending on the professional branch they belong to. The duration of higher training courses is between 1,300 and 2,000 hours (between one and a half and two academic years). Work placements account for 350-750 hours of training and activities.

This chapter concentrates in the higher education system at the university level while the other aspects of higher education will be treated in Chapters 4 and 5.

The Spanish education system is highly decentralized to a regional level. All the regions (Comunidades Autónomas) have progressively assumed functions, services and resources ("competencies") in education since 1981 when the Basque Country and Catalonia assumed fully the education competencies. The central administration is in charge of the homogeneity and unity of the system, guarantying the equal opportunity rights principle established in the

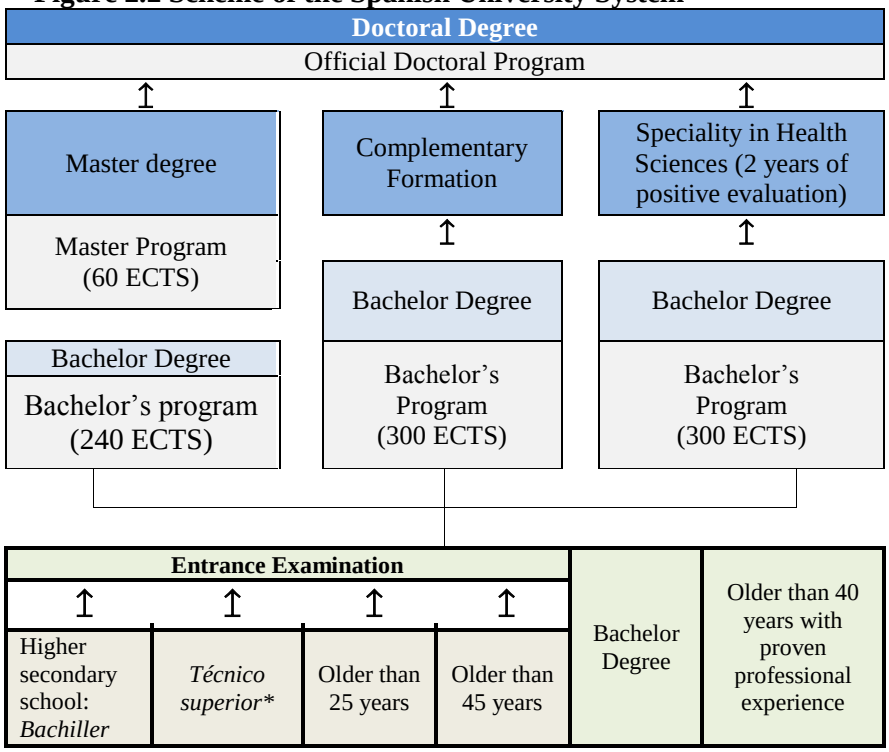
Spanish Constitution. Its function consists mainly in the regulation and legislation of basic aspects of the system. The development of these basic regulations and the regulation of non-basic aspects are in the hands of the regional authorities.

Spain has 79 universities, of which 50 are public and 29 are private, distributed throughout the country. Public universities are established by means of a law passed by the legislative assembly of the concerned autonomous community or through legislation passed in the Spanish Parliament.

Along with more than 30 European countries, Spain has been immersed since 1999 in a transformation of its higher education system to adjust to the requirements of the Bologna Declaration that aims to harmonize program duration among European countries. In concordance with the principles of the Bologna process, the Organic Law that regulated the Spanish University System (LOU, 2001) was modified in 2007 (LOMLOU, 2007) and the university studies in Spain are since then divided into three different program blocks:

- Bachelor`s programs, which last in general four years and require 240 credits (ECTS)[2]. Fields and sub-fields covered include Arts and Humanities, Sciences, Health Sciences, Social Sciences and Law, Engineering and Architecture.
- Master's programs, which typically last between one and two years. They usually prepare students for a second degree/qualification following a bachelor's program and require 60 ECTS plus the public defence of a thesis entailing 6 to 30 credits
- Programs and degrees at the doctorate/Ph.D. level, which normally last three years that can be prorogued for one year by the commission in charge of the program and exceptionally can be extended for one extra year[3]. From the academic year 2011-2012, to hold a Master degree or equivalent is compulsory for accessing a doctorate program.

Figure 2.2 Scheme of the Spanish University System



(*)Holding a higher vocational training, advanced vocational plastic arts and design, or advanced sports degree

[2] Some programs might require a higher number of ECTS credits as Medicine or Architecture, following European guidelines.

[3] RD 99/2011 that regulates official doctorate programs.

Source: Basque Ministry of Education, Universities and Science Policy

In addition to their official courses leading to official degrees, universities can offer unofficial courses leading to non-official degrees in a large number of professional fields. The unofficial degrees are typically one or two year programs that usually require having attained an undergraduate or graduate degree.

To be able to provide official instruction and issue the appropriate titles, the university must have the authorization of the autonomous community and study plans that are in accordance with the guidelines and conditions set out by the government. This framework reflects recent changes to the LOU (LOMLOU, 2007) that states that "from now on the universities themselves will create and propose the teaching and titles they will offer and grant, without being subject to their previous listing in a Government catalogue, as was required until now".

In 2008, the Government of Spain in collaboration with the Autonomous Communities launched the so called Campus of International Excellence Program to foster the modernization and internationalization of Spanish university campuses within the University Strategy 2015. The aim of the program is that teaching, research and innovation institutions cooperate – forming the so called Centres of International Excellence or Centres of International Regional Excellence - to achieve higher levels of excellence and internationalization. It also seeks to promote the special role of Spanish universities in the promotion of "knowledge and innovation ecosystems", which are necessary for the development of "intelligent territories" that lead the transition to social and economic recovery.

This new concept aims to promote campuses which are socially and economically integrated within their surrounding urban or regional area. The campus will need to make efforts to achieve high quality services and environmental sustainability, i.e. be dynamic and sustainable so that that it can help increase the attractiveness of the area for international students, academics and researchers as well as for knowledge-related investors. It involves adapting teaching and learning spaces according to the goals of the European Higher Education Area. Results so far have been positive, and are contributing to the creation of sustainable, environmentally integrated university campuses. At the time being, there are 16 Centres of International Excellence and 15 Centres of International Regional Excellence. The government has invested 590 M€ in the three calls that have taken place (2009, 2010, and 2011), although the whole program is now in stand-by and being completely revised.

2.1.2 Students in higher education

The total number of students enrolled in Spanish universities in the 2010-11 academic years was 1,576,656, the majority of whom (87.4%) chose a public university. This is 6.6% higher than in 2008-09, but 2% lower than in 1996-97 meaning that the total number of students enrolled in universities dropped 8% between 1996-97 and 2008-09 mainly due to a demographic change, but increased 6.6% between 2008-09 and 2010-11 probably due to the economic recession. The number of new enrolments in undergraduate programmes shows the same trend describe above. Enrolment in private universities has, nevertheless, increased 82.4% between 1996-97 and 2010-11. The total number of university students in private universities has expanded from 4.4% in 1996-97 to 12.6% in 2010-11 (Ministry of Education, Culture and Sport, 2012).

In the academic year 2010-2011 still coexisted the old structure of studies (first and second cycle university studies) with the Bologna harmonized one developed in the LOMLOU (2007): 56.9% of the students were pursuing a degree in the first and second cycles while 34.7% were pursuing a bachelor degree. The old and new systems also coexist in the postgraduate level. The master studies were introduced in the academic course 2006-2007; in 2010-2011, 100.963 students (6.4% of all the university enrolments) were master students and 30.301 (5.5% of all the university enrolments) were doctoral. The drop in enrolments in doctoral programs as well as part of the large increase in enrolments in master programs are due to the progressive introduction of the requirement of a master degree to be admitted in a doctorate program (compulsory from 2011/2012 onwards).

The number of students graduating from undergraduate programmes (bachelor or 1st and 2nd cycle degrees) has reduced since the end of the 90s to 2008, encompassing the reduction in enrolments. This reduction has been however lower than the reduction in the number of enrolled students. The last three academic courses have witnessed an increase in the number of graduates.

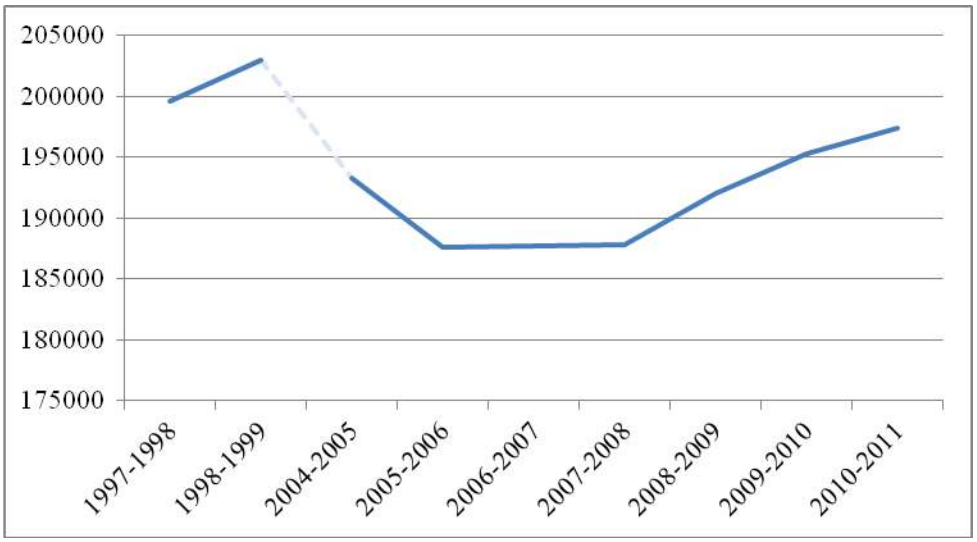
Table 2.1. Enrolment in university according to type of institution and study cycle

	1996-97		**2006-07(1)**		**2008-09(1)**		**2010-11(1)**	
	Enrolment	**%**	**Enrolment**	**%**	**Enrolment**	**%**	**Enrolment**	**%**
Total	**1,608,671**	**100%**	**1,505,380**	**100%**	**1,479,450**	**100%**	**1,576,656**	**100%**
Undergraduate programmes	**1,549,312**	**96.30%**	**1,405,894**	**93.40%**	**1,377,228**	**93.10%**	**1,445,392**	**91.60%**
•*Bachelor*					*18,353*	*1.2%*	*547,797*	*34.7%*
•*1st & 2nd cycle*	*1,549,312*	*96.3%*	*1,405,894*	*93.4%*	*1,358,875*	*91.9%*	*897,595*	*56.9%*
Long cycle	999,338	62.1%	781,371	51.9%	750,281	50.7%	521,465	33.1%
Short cycle	532,188	33.1%	563,468	37.4%	552,935	37.4%	330,454	21.0%
Only second cycle	17,786	1.1%	61,055	4.1%	55,659	3.8%	45,676	2.9%
Masters programmes			**16,636**	**1.1%**	**49,799**	**3.4%**	**100,963**	**6.4%**
Doctoral programmes	**59,359**	**3.7%**	**82,850**	**5.5%**	**52,423**	**3.5%**	**30,301**	**1.9%**
Public Universities	**1,538,514**	**95.6%**	**1,358,166**	**90.2%**	**1,322,412**	**89.4%**	**1,378,536**	**87.4%**
Bachelor					9,555	0.6%	460,760	29.2%
Long cycle	949,698	59.0%	701,547	46.6%	672,516	45.5%	469,940	29.8%
Short cycle	515,709	32.1%	511,877	34.0%	501,164	33.9%	300,309	19.0%
Only second cycle	15,474	1.0%	52,056	3.5%	47,375	3.2%	38,346	2.4%
Masters programmes			13,928	0.9%	42,133	2.8%	81,368	5.2%
Doctoral programmes	57,633	3.6%	78,758	5.2%	49,669	3.4%	27,813	1.8%
New entrants in undergraduate programmes	249,687(2)		228,611		213,560		n.a.	
Private Universities	**70,160**	**4.4%**	**147,214**	**9.8%**	**157,038**	**10.6%**	**198,120**	**12.6%**
Bachelor					8,798	0.6%	87,037	5.5%
Long cycle	49,629	3.1%	79,824	5.3%	77,765	5.3%	51,525	3.3%
Short cycle	16,493	1.0%	51,591	3.4%	51,771	3.5%	30,145	1.9%
Only second cycle	2,312	0.1%	8,999	0.6%	8,284	0.6%	7,330	0.5%
Masters programmes			2,708	0.2%	7,666	0.5%	19,595	1.2%
Doctoral programmes	1,726	0.1%	4,092	0.3%	2,754	0.2%	2,488	0.2%

(1) Provisional data (2) Data correspond to the academic year 1998-1999 in public universities

Source: Ministry of Education, Culture and Sport (2012)

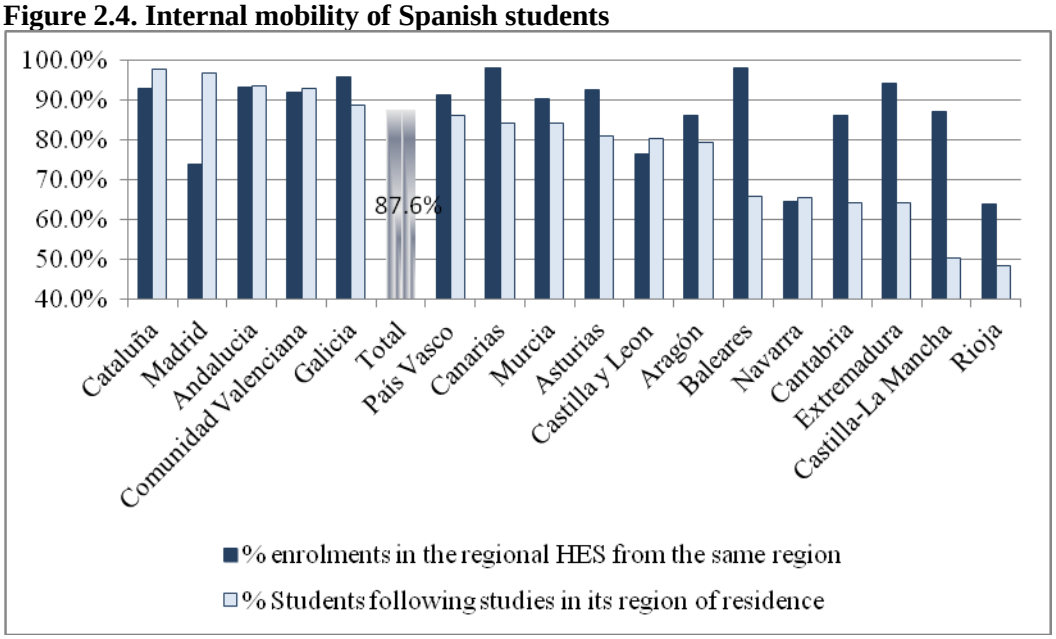
Figure 2.3. Number of graduated students in Spain (bachelor or 1st and 2nd cycle degrees)



Source: Ministry of Education, Culture and Sport

Spanish undergraduate students show little internal mobility due in part to the high territorial dispersion in the HEIs and the wide spectrum of courses offered, generalist and with little specialisation and differentiation. On average 87.6% of the students with permanent residence in one region followed in 2009/2010 their undergraduate studies in the same region. This figure is higher for those regions with a larger offer of courses as Madrid or Catalonia. This fact translates in a high dependence of the regional HEIs on the students from the same region. In this respect Rioja, Navarre (mainly the private university) and Madrid are the more attractive regions for students from other regions: 36.3%, 35.6% and 26.1% respectively of their undergraduate students come from other regions.

Figure 2.4. Internal mobility of Spanish students

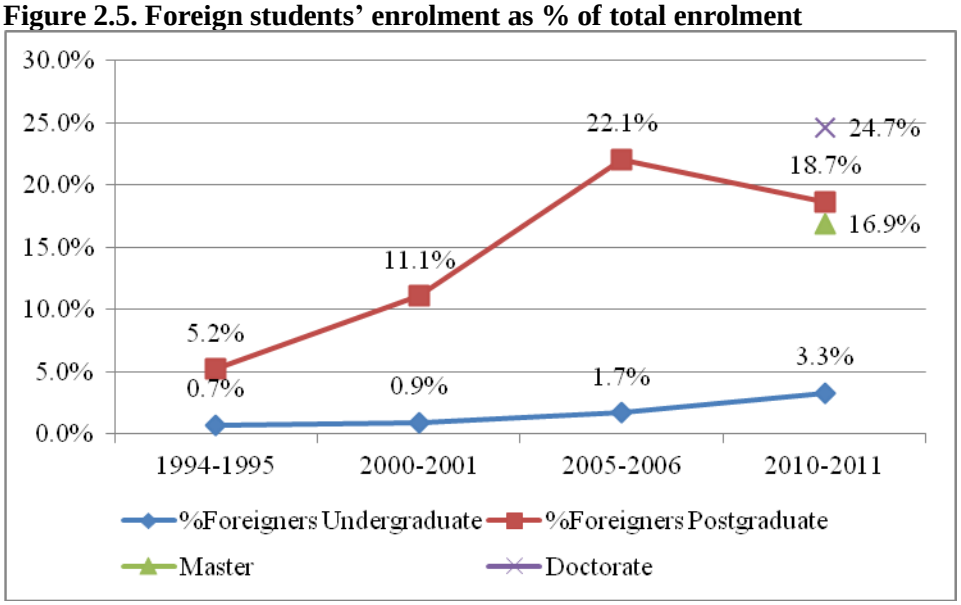


Note: Academic year 2009-2010.
Source: "Facts and Figures of the Spanish University System. Academic Year 2011-2012". Ministry of Education, Culture and Sport

Foreign students at Spanish university have increase strongly in the last decades. Part of this growth is attributable to the rise in the immigrant population, especially in undergraduate studies. Other part is explained by the progressive internationalisation of the Spanish programmes, especially at a postgraduate level. For the last year available (2010-2011) the origin of the students is different for undergraduates and for postgraduates: 39.1% of the foreign undergraduates come from the EU27 and 33.3% from Latin America while the figures are

23.3% and 58.1% for postgraduate students. More than three quarters (76.6%) of these students undertake undergraduate or postgraduate studies in the universities of four regions: Madrid, Catalonia, Valencia, and Andalusia.

Figure 2.5. Foreign students' enrolment as % of total enrolment



Source: "Facts and Figures of the Spanish University System." Several years. Ministry of Education, Culture and Sport.

Student mobility is promoted at an international level by the Erasmus programme and at a national level by its equivalent Seneca programme. The Erasmus programme has proven to be quite successful: the number of Spanish students participating has increase from 14,167 in the academic year 1998-1999 to 33,616 in the academic year 2010-2011; on the other hand, 35,389 European students visit Spanish universities through the programme in 2010-2011, while the figure was 13,167 in 1998-1999. The most popular destinations for Spanish students are Italy, France, UK, and Germany, while most of the incoming Erasmus comes from Italy, Portugal and Belgium. Participation in the Seneca programme is less popular than participation in the Erasmus programme and also counts with less funds, although it has also experience a large increase in the last years: in 2001-2002 out of 2,751 applications for finance, 978 were granted; in 2010-2011 both numbers have double, out of 5,729 applications, 1,871 were granted.

2.1.3 Staff in the higher education system

Spanish universities are composed by two staff categories: (1) teaching and research staff (PDI) and (2) administrative and support staff (PAS). Teaching and research staff comprise civil servants (public universities) and non-civil servant staff (both at public and private universities). Civil servants must by law be more than half the total number of academic staff at each university (in terms of full-time equivalent). Civil servant staff is divided into the following categories: full professor *(catedrático de universidad)*, associate professor *(profesor titular de universidad or catedrático de escuela universitaria)* and college professor *(titular de escuela*[4] *universitaria*). Civil servant university teachers are regulated by the national government, although they are employed and paid by the university they work in (which is under the jurisdiction of its autonomous community).

Non-civil servant staff is also divided into several categories, which may vary across autonomous communities. Some have a permanent labour status (a novelty, with specific regulation, since 2002), while others are on fixed-term contracts in the early stages of their academic career. The regulations also provide for some other categories such as associate teachers (who are external professionals hired for specific teaching assignments) and visiting or

[4] A category designed for teaching in first cycle professional courses that is in process of disappearing with the LOMLOU.

emeritus professors. Since 2001, non-civil servant staff needs to undergo an assessment and accreditation evaluation (undertaken by ANECA or the regional quality assurance agency). Private universities have their own staff categories. Since 2002, private university professors need to be accredited by the national quality and accreditation agency (ANECA) or by the regional quality assurance agencies.

The number of academic staff at public and private universities was 110.287 in 2009- 10, which reflects an increase of 2.2% over the previous year. Within public universities, the growth was entirely between non-civil servants as civil servants have slightly reduced their presence by 0.3%. The proportion of civil servants at public Spanish universities has reduced over the years, from 48.8% in 2007-08 to 46.0% in 2009-2010. The proportion on non-civil servants has increased over the same period, from 43.0% in 2007-2008 to 45.2% in 2009-2010.

In the period 2007/2008 – 2009/2010, student enrolments in public universities have increased 6.5% while the number of research and teaching staff has increased by 4.3%. Thus, the student/teacher ratio at public universities has slightly increased from 13.2 students per teacher in 2007-2008 to 13.5 in 2008-2009. The student/teacher ratio at private universities has also increased over the same period: from 17.5 students per teacher in 2007-2008 to 17.8 in 2008-2009.

Table 2.2 Evolution of teaching and research staff

	2007-08		**2008-09**		**2009-10**	
	Total	**%**	**Total**	**%**	**Total**	**%**
TOTAL	**105,034**	**100.0%**	**107,930**	**100.0%**	**110,287**	**100.0%**
Public Universities	**96,462**	**91.8%**	**98,622**	**91.4%**	**100,600**	**91.2%**
Civil servants	51,262	48.8%	51,054	47.3%	50,905	46.0%
Non-civil servants	45,200	43.0%	47,568	44.1%	49,695	45.2%
Private Universities	**8,572**	**8.2%**	**9,308**	**8.6%**	**9,687**	**8.8%**

Source: Ministry of Education, Culture and Sports

Administrative and support staff carry out administrative and management functions (human resources, administration, financial matters, data processing, record keeping, libraries, laboratory maintenance, information and general services). Administrative and support staff employed at public and private universities reached 59,862 in 2009-2010, with a 4.7% increase from the previous year: 3.3% growth in public universities – with a higher increase in civil servants than in non-civil servants - and 18.9% growth in private universities.

Table 2.3 Evolution of administrative and support staff

	2007-08		**2008-09**		**2009-10**	
	Total	**%**	**Total**	**%**	**Total**	**%**
TOTAL	**55.774**	**100,0%**	**57.162**	**100,0%**	**59.862**	**100,0%**
Public Universities	**50.880**	**91,2%**	**52.061**	**91,1%**	**53.797**	**89,9%**
Civil servants	29.067	52,1%	30.311	53,0%	31.562	52,7%
Non-civil servants	21.561	38,7%	21.443	37,5%	21.919	36,6%
Other	252	0,5%	307	0,5%	316	0,5%
Private Universities	**4.894**	**8,8%**	**5.101**	**8,9%**	**6.065**	**10,1%**

Source: Ministry of Education, Culture and Sports

Staff in public universities is divided as follows: 65.2% teaching and research; 34.8% administrative and support staff.

2.1.4 Governance in higher educational system

The term governance refers to the "decision-making processes". It is the way to solve university organizational problems and is related to who decides what and when, and the institution's capacity to change (University of Oxford, 2006).

The Minister of Education, Culture and Sport defines, together with the General Conference on University Policy *(Conferencia General de Política Universitaria)*, the national level regulatory framework establishing the governance system of public universities in Spain.

The governance system predominant in public universities in Spain is established by law (Organic Law on Universities (LOU) 6/2001, amended in April 2007) which determines a number of collegial bodies and individual roles of Rectors, Vice-rectors, Secretary General, Manager, Faculty Deans, School, Department and Institute Directors of Research. Four main collegial bodies are established (Social Council, Governing Council, University Assembly, School and Faculty and Department Councils) although the practical way to elect or nominate their members is left mostly to individual University Statutes (internal set of rules). Together with this, the law grants Spanish universities a significant degree of institutional autonomy to develop their Statutes and, among other things, to create specific structures to support their research and teaching activities, contract new teachers and researchers, define their curricula, manage the budget, administrate their assets and establish relations with other entities (OECD 2009). In fact, one of the main aims of the amended LOU was to strengthen the institutional autonomy of Spanish universities. Spanish universities use a collegial model of governance where most members are heard (M. P. Sánchez, 2010).

Collegial bodies

The Social Council is the "organ of participation of the society in the university". It is formed by a maximum of 30 members coming from state/society (80%) and university (20%, including Rector, Secretary, University Manager, and Teachers). It is designed by regional governments. Its main functions are: relations between university and society; approve the university annual budget; approve pluriannual programming as proposed by the Governing Council. The autonomous region will designate the president of the Social Council.

The Governing Council is the "organ of government of the university". It establishes the programmatic and strategic lines of the university, as well as policies and procedures in the areas of the organization of teaching, research, economic and human resources and the university budget. It is formed by a maximum of 50 members, including the Rector, the General Secretary and the University Manager. 30% of its components are elected by the Rector, 40% by the University Assembly and the remaining 30% among the members of the rest of collegial bodies. It also includes 3 members from the Social Council.

The University Assembly is the "senior governance body" of the university community. It is formed by a maximum of 300 members - including the Rector, the General Secretary and the University Manager - elected by academic staff, administrative staff and students. At least 51% of its members must be PhD civil servants. The Senate can revoke the Rector's mandate with one third of the membership and convene an extraordinary assembly to elect a new Rector. The elections of senate representatives to the Governing Council are carried out by and among the members of each one of the eligible sectors. (Article 16, LOU).

Individual roles

The Rector is the university's highest authority and representative. He or she is democratically elected by the university community (51-80% academic staff; 10-20% students; 7-15% non-academic staff) among candidates with recognized prestige in their discipline and an active role in academic life. Once appointed the Rector appoints the management team formed by Secretary General, Vice rectors and University Manager.

Faculties elect councils chaired by the Dean. The majority of the members of these councils are teachers or professors with a permanent appointment (civil servants) at the university. In turn,

each department is run by a council chaired by the Director and its membership includes holders of doctoral degrees, representatives of the remainder academic personnel, a student representative and a representative of the administrative staff.

Private universities determine their own governance structure and internal rules. However, the representation of the university's different groups needs be assured in each of the internal governing bodies, with a satisfactory gender balance. Bodies with responsibility for academic matters should have a majority of teaching and research staff. Nominations for individual positions also need to consider certain requirements such as, for some positions, holding a doctoral degree.

2.1.5Funding of higher education

Spain is close to the OECD average and the average of the EU-21 countries in terms of the resources available to the tertiary education system (measured as effort on GDP). Public spending on higher education institutions in Spain represented in 2008 1.2% of the GDP (1% for tertiary-type A and advanced research programmes and 0.2% to for tertiary type B programmes), while the OECD average is 1.5% and the EU21 averages is of 1.3%. Spending per student relative to GDP per capita in Spain in 2008 was similar to the OECD average: 40% in Spain compared to 41% in OECD countries and 39% in the EU21. Spending per student in higher education institutions for all services in Spain has grown 38% between 2000 and 2008 due in part to a decrease in the number of students, placing Spanish annual spending on higher education institutions per student at levels close to OECD average: USD 13,717 in OECD countries and USD 13,366 in Spain.

Table 2.4. Expenditure in Tertiary Education 2008, selected EU countries.

	Expenditure per student(1)				Expenditure per student as % GDP per capita				Expenditure as % GDP		
	Tertiary education (including R&D activities)			All tertiary education excluding R&D activities	Tertiary education (including R&D activities)			All tertiary education excluding R&D activities			
	Tertiary-type B education	Tertiary-type A & advanced research programmes	All tertiary education		Tertiary-type B education	Tertiary-type A & advanced research programmes	All tertiary education		All tertiary education	Tertiary-type B education	Tertiary-type A & advanced research programmes
Finland	n.a.	15,402	15,402	9,592	n.a.	41	41	25	1.7	n.a.	1.7
France	11,461	14,945	14,079	9,854	33	44	41	29	1.4	0.3	1.1
Germany	7,693	17,114	15,390	9,504	21	46	41	26	1.2	0.1	1.1
Italy	8,944	9,556	9,553	5,959	27	29	29	18	1.0	n.a.	1.0
Spain	10,725	13,928	13,366	9,451	32	42	40	28	1.2	0.2	1.0
Sweden	7,865	20,864	20,014	10,019	20	53	51	25	1.6	n.a.	n.a.
UK	n.a.	n.a.	15,310	8,399	n.a.	n.a.	42	23	1.2	n.a.	n.a.
OECD average	**n.a.**	**n.a.**	**13,717**	**9,349**	**23**	**42**	**41**	**29**	**1.5**	**0.2**	**1.3**
EU21 average	**n.a.**	**n.a.**	**12,958**	**8,315**	**24**	**41**	**39**	**29**	**1.3**	**0.1**	**1.2**

Notes: (1) In equivalent USD converted using PPPs for GDP
Source: "Education at a Glance 2011", OECD

Spain devotes higher resources than other European countries to finance type B higher education programs, which includes higher VET.

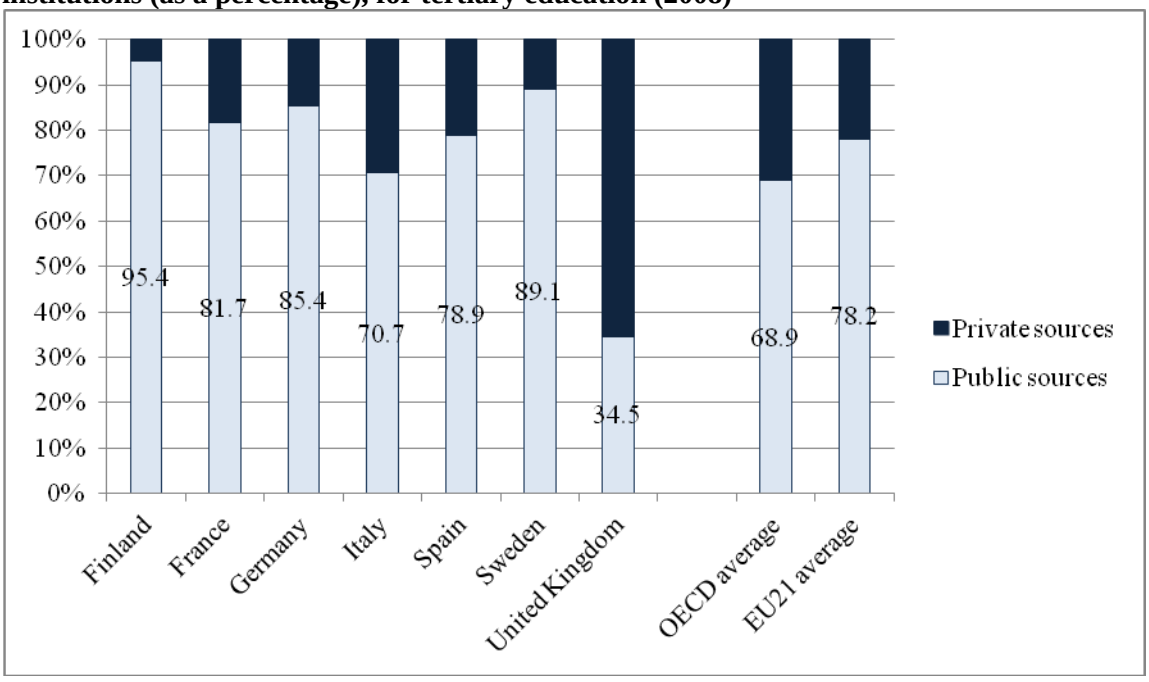
On average, in the OECD area 31% of the funds devoted to higher education come from private sources. Public funds are the major funding source in all countries and account for an average of 69% of total expenditure on higher educational institutions.

In Spain (2008), public expenditure covered 79% of the total expenditure while the private contribution (household expenditure and expenditure from other private entities, including subsidies for payments to educational institutions received from public sources) covered the 21%. In 14 of the 21 countries with comparable data for 1995 and 2008, the private share of educational expenditure for high education increased by at least three percentage points during this period. Similarly, 20 of the 26 countries for which comparable data are available for 2000 and 2008 showed an increase in the share of private funding for tertiary education. Spain shows a decrease in private expenditure on high educational institutions. (Education at a Glance, 2011).

The main public subsidies are: general subsidies usually based on objective input indicators; subsidies of specific nature, dealing with specific characteristics or strategic projects particular to each institution; and finally, subsidies of a competitive nature (which private universities can also apply for), primarily in the area of research funding. Universities also receive public funding for long-term investment plans for infrastructure and equipment.

Public funding of higher education is a responsibility of autonomous communities. This leads to differences across communities over approaches to the public funding of higher education institutions, although there is a general trend to go from the traditional incremental allocation system to more transparent formula-based models. Each public university receives public funds from its autonomous community as a lump sum. The budget must be approved by its Social Council, which is responsible to oversee its financial activities. In addition, there is a separate provision of funds for infrastructure and for improving facilities by means of multi-year investment plans.

Figure 2.6. Relative proportions of public and private expenditure on educational institutions (as a percentage), for tertiary education (2008)

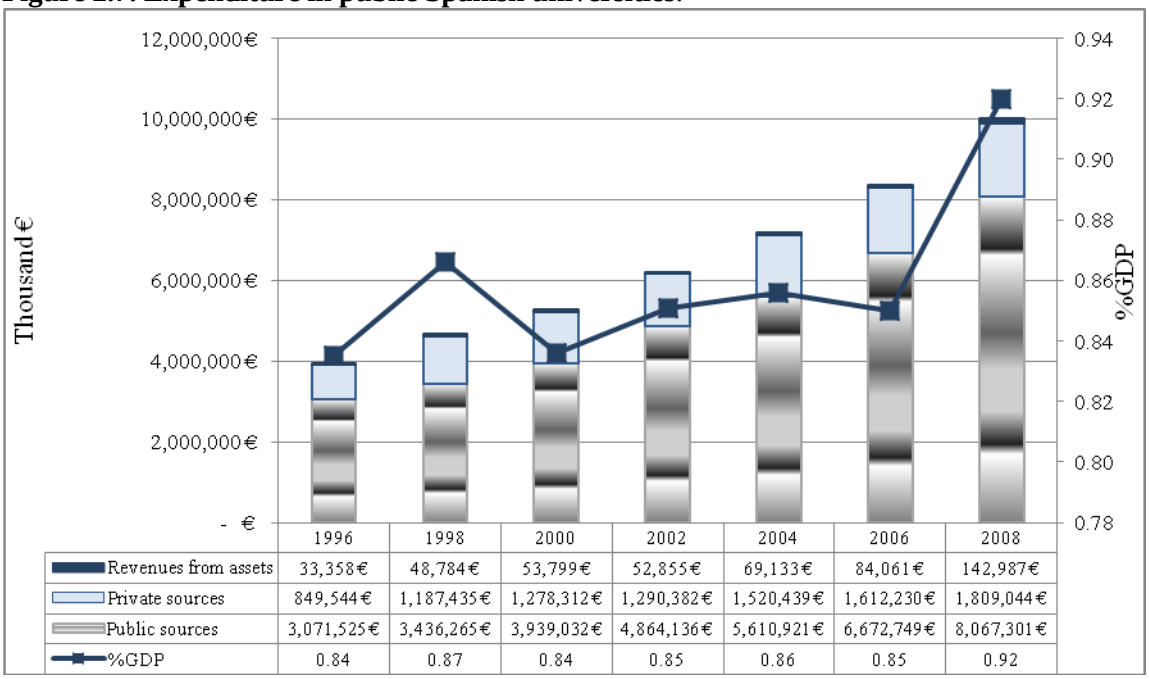


Source: Education at a Glance 2011, OECD.

Concentrating in the Spanish public universities, the core of the HES, their funds come from three main sources: (1) Public government subsidies provided by the autonomous region

(provides general funding and funding for university investments) and the central government (provides most grants and scholarships awarded to students), (2) Tuition fees paid by students, covering less than 15 per cent of the full cost of university education, (3) Funding (public and private) for research activities and other services (knowledge transfer, continuous training, contracts and patents). The funds of the public Spanish universities have tended to increase in absolute terms in the last twenty years, although this increase is smaller as percentage of the GDP: in 1996 0.84% of the GDP was devoted to finance public universities while the percentage in 2008 was of 0.92%. Most of the funds of the public universities come from public sources (81% in 2008) and the share of public funds has not changed much during the last two decades.

Figure 2.7. Expenditure in public Spanish universities.



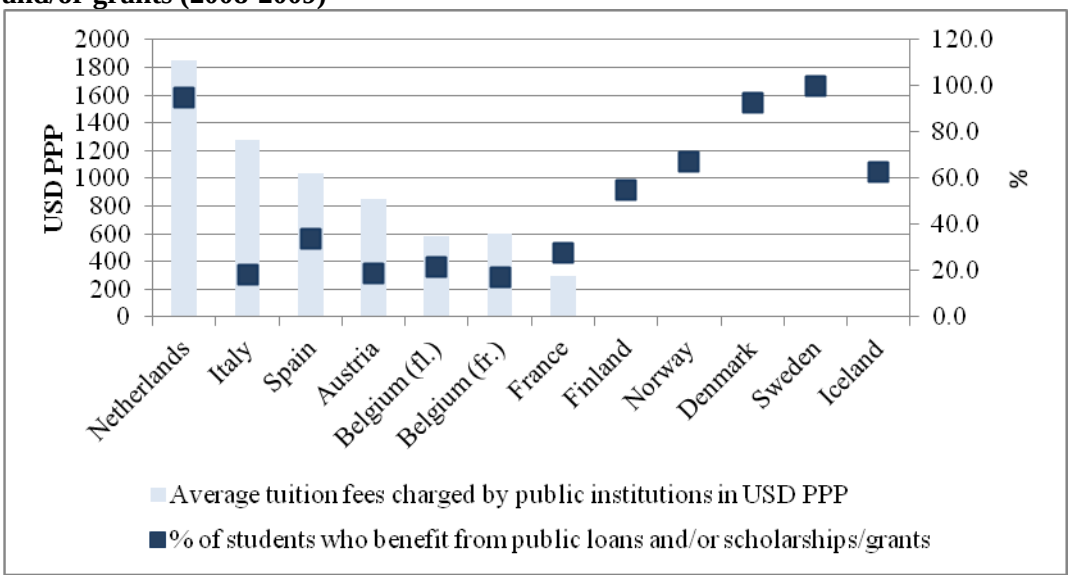
	1996	1998	2000	2002	2004	2006	2008
Revenues from assets	33,358€	48,784€	53,799€	52,855€	69,133€	84,061€	142,987€
Private sources	849,544€	1,187,435€	1,278,312€	1,290,382€	1,520,439€	1,612,230€	1,809,044€
Public sources	3,071,525€	3,436,265€	3,939,032€	4,864,136€	5,610,921€	6,672,749€	8,067,301€
%GDP	0.84	0.87	0.84	0.85	0.86	0.85	0.92

Note: Includes total financing for the Spanish public universities (excluding distance education ones).
Source: "La Universidad Española en Cifras. 2010", CRUE.

Tuition fees

Higher VET courses do not charge fees to Spanish students. Tuition fees charged by public universities in Spain are relatively low compared with other OECD countries but in line or even above the tuition fees of other European countries. Students can benefit from subsidies (i.e. scholarships) provided by the ministry of education and the regional governments, but the student financial aid system is relatively modest (scholarships/other grants to households and student loans represent 9.9% of total public expenditure on education) and students rely mainly on family financial support to cover their study expenses.

Figure 2.8. Average tuition fees and percentage of students who benefit from public loans and/or grants (2008-2009)



Source: Education at a glance 2011

Undergraduate fees vary depending on the nature of the studies (whether the use of labs is a requirement or not), but on average do not cover more than 10% of the cost incurred.

Table 2.5. Fees by ECT in the Spanish universities, by region (year 2008-2009)

	Price of ECT (1)	Cost of ECT (2)	Coverage (3)=(1)/(2)%
Andalucía	11.5	98.6	11.67%
Aragón	14.0	138.9	10.10%
Asturias	13.2	109.5	12.09%
Aragón	13.4	97.3	13.76%
Canarias	10.7	104.2	10.28%
Cantabria	12.6	139.5	9.02%
Castilla-la Mancha	14.5	108.5	13.40%
Castilla y León	12.8	113.7	11.24%
Cataluña	13.0	152.8	8.48%
C. Valenciana	9.9	106.0	9.35%
Extremadura	13.8	82.5	16.70%
Galicia	11.2	106.2	10.55%
Madrid	15.6	122.7	12.67%
Murcia	14.2	97.7	14.51%
Navarra	14.3	138.6	10.31%
Basque Country	12.7	134.2	9.50%
Rioja	13.0	136.0	9.55%
Total	**11.5**	**115.0**	**9.98%**

Note: The price by ECT is a weighted average of the price of all undergraduate courses offered in an Autonomous Community; it is the price charged for first enrolments; fees other than by ECT are not included; the average undergraduate course is composed of 60 ECT credits.
Source: "La Universidad Española en Cifras. 2010", CRUE.

Funding for R&D&I activities

Public funding of research is articulated through calls defined in the National R&D&I Plan, designed around a broad set of national priorities. In 2006 the National Plan funded 22,796

projects for a total amount of 2,725 million euro, slightly lower that the 2,751 dedicated in 2005 (COTEC, 2008). Regional authorities finance research and innovation through the different Regional R&D&I Plans. The European Union finances research and innovation in Spain via participation in the Research and Development Framework Program calls and specific funding from the Structural Funds and the special European Technology Fund 2007-2013. For the period 2007-2013, Spain is expected to receive around 10 billion euro to invest in R&D&I activities.

2.2. Structure of the higher education system in the Basque Country

2.2.1. Higher education system overview

As for the Spanish system as a whole, the Basque Higher Education System comprises university and non university education. This section deals with the university system in the Basque Country.

The history of the Basque University System can be traced back to 1540 when the Oñate University was founded to disappear in 1901. Between that date and the beginning of the XX century different centres appeared throughout the Basque Country: the Seminary of Bergara, the Nautical School (1784), the Commerce School (1818), or the Technical Engineering School (1897). Several attempts to have a homogenized system across the Basque provinces failed at that time. Also at the end of the XIX century (1883), the Society for the Catholic Education in Bilbao started the seed of what it would be the University of Deusto nowadays.

The beginning of the XX century saw a resurgence of a strong movement pro Basque University that, after an interruption during the dictatorship (1923-1930), culminated in 1936 with its foundation. This new University lasted only one year, to 1937, when Franco's armies entered Bilbao. In 1955, the foundation of the Faculty of Economics and Business in Bilbao, at that time under the jurisdiction of the University of Valladolid, triggered new demands for a Basque University and in 1968 the University of Bilbao (Economics and Business, Medicine, and finally also Sciences), as an independent district was created. The Bilbao district covered only the university centres in Bizkaia. Meanwhile, Gipuzkoa and Araba have developed their own higher education institutions, always under the jurisdiction of the University of Valladolid. Gipuzkoa was especially active in this respect: it counted with a Commerce School since 1915, that was transformed into a School of Business Studies in 1972; also, as the rest of the Basque provinces had a Teachers School and during the 60's and 70's managed to create the faculties of Law, Chemical Sciences and Informatics, all dependent of Valladolid. Araba created in 1970 the University College of Araba (CUA) that included a faculty of philosophy and the first years of studies in medicine.

It was not until 1977 that a Basque University district was created that included the three provinces, and finally in 1980 the University of Bilbao was transformed in the actual University of the Basque Country that in addition included the body of university centres and technical schools previously scattered around the Basque provinces.

Finally, the Basque Country had fully transferred the competencies in Higher Education in 1985. Since then, the Basque Government has made an effort to regulate the University System first with the Law 19/1998 and now with the Law 3/2004 of the Basque University System that replaces the former. This last law is still operative and for the first time defines the Basque University System as "the body of all the universities whose headquarters are set in the Basque Autonomous Community".

According to this definition, the Basque University System is conformed nowadays by three universities, one public, the University of the Basque Country/ Euskal Herriko Unibertsitatea (UPV/EHU) and two private ones: University of Deusto with a religious background and Mondragon University, a cooperative University member of the Modragon Corporation but

open to the whole society and closely linked to the Corporation's entrepreneurial character[5]. The three universities conform today a system that offers 100 certified bachelor degrees, 133 official masters and 78 doctoral programs, attended by almost 60,000 students in the different campuses (11) located in the three Basque provinces.

The UPV/EHU, as the only public university in the Basque Country, maintains a wide range of degrees and postgraduates courses in all knowledge branches. Although a public university, it has some peculiarities in terms of governance when compared with other Spanish public universities. In particular, the UPV/EHU is constituted as a multi-campus university, with one campus associated to each of the three historical provinces of the Basque Country (Araba, Bizkaia and Gipuzkoa). The organisation of the UPV/EHU is in this respect decentralised with an important degree of autonomy in several aspects (budget, institutional relations, etc.) and closely linked to the local needs. Each campus counts with is one Vice rector, secretary and manager. The Vice rectors of the three campuses form part of the Governing Council. Among the functions of the campuses are the promotion of the relationships between the centres, departments, institutes of research of the university and the promotion of the relations with the rest of institutions. Their activities are developed in close coordination with the general governing units of the whole university.

The UPV/EHU offers a wide spectrum of undergraduate programmes (around 91), official masters (97) and Doctoral programmes (71). Of special relevance is its exclusive offer of degrees in experimental and health sciences. A comprehensive list of the offered courses can be found in the Appendix I joint with the offer of courses by the other two Basque universities. The UPV/EHU stands by its dimension among the eight major Spanish universities and is the largest in the Basque University System. It also has the higher number of doctoral programmes with 32 awarded with the Distinction of Excellence from the Spanish Ministry of Education (the highest number among the Spanish universities).

The University of Deusto is a university of non-profit social initiative of Christian inspiration. It has a history of recognized prestige in the training of professionals of high qualification who have led some of the most relevant business and institutional initiatives, not only at the Basque Country but also at the Spanish level. The University has a program traditionally focused in social, economic, legal sciences and humanities, but in recent years it has been expanded to technical education and engineering and to health sciences (psychology), by dividing its activities between Bizkaia and Gipuzkoa.

Also of private nature, Mondragon University (MU) capitalizes a project with a recognizable idiosyncrasy. Mondragon University is a key agent at the roots of the development of Mondragon Corporation and it is thus characterized by a close relation with the entrepreneurial world with a clear orientation towards transferring knowledge and a firm compromise to change the society. The structure of the university has a General Assembly, a Governing Board, and an Executive Board. The General Assembly is composed by 30 representatives of the faculties, 6 representatives of the collaborating partners or agents (local agencies, city hall, Mondragon Corporation, and other local organisations), and 1 representative of the Rectorate. The Governing Board is chosen in the General Assembly: the faculty representatives choose 12 members and the collaborating partners representatives choose 5 members. The Executive Board is composed by six members including the rector, the vice-rector for academic affairs, the General Secretary and the Financial Director. This structure mirrors the organisation of each faculty that counts with the same bodies[6].

[5] In addition, Basque students can enroll in undergraduate and graduate programs of the National Distance University (UNED) and on several other universities that belong to other Spanish or International Universities. Of special relevance given its size is the School of Engineering TECNUM, dependent of the University of Navarre, and located in San Sebastian, that during 2010-2011 enrolled 1239 undergraduate and 176 doctoral students. The University of Navarre also owns in San Sebastian the School of Management Assistants ISSA.

[6] For more information see Wright, Greenwood, and Boden (2011).

Specialized in technical/engineering education and business MU has expanded its offer of qualifications to other Social Sciences (Education and Communication) and more recently to Food Science with the opening of the Basque Culinary Centre and the bachelor and master degrees in gastronomy and culinary arts. From the point of view of its territorial implementation, currently is only located at Gipuzkoa.

Table 2.6. The Basque University System

	Ownership	Year of foundation	Campuses	Faculties/Schools
University of the Basque Country (UPV/EHU)	Public	1980	3 Araba, Gipuzkoa and Bizkaia	33
University of Deusto (DU)	Private	1886	2 Bilbao and San Sebastian	5
Mondragon University (MU)	Private	1997	6 Mondragon, Ordizia, Oñati, Irún Escoriatza and San Sebastian	4

Source: own universities.

In total the Basque universities had in the last year with available data (2010-2011) 51,388 undergraduate students and 8,080 postgraduate students (master and doctorate). That accounts for 3.6% and 4.6% of all Spanish university students enrolled in undergraduate and master programs respectively. The percentage of youngsters (between 18 and 24) pursuing an undergraduate degree was 30.9% in 2010-2011, a figure that has increased in recent years and that is well above the Spanish one (24.5%), according to data of the Ministry of Education, Culture and Sport.

Most of the Basque students are enrolled in the public university UPV/EHU, especially at undergraduate and doctoral levels (80%). The competition with private universities in terms of master programmes is higher, and 53% of the master students were enrolled either in the University of Deusto (42%) or in Mondragon University (10%).

Table 2.7. Enrolment in Basque universities per academic year

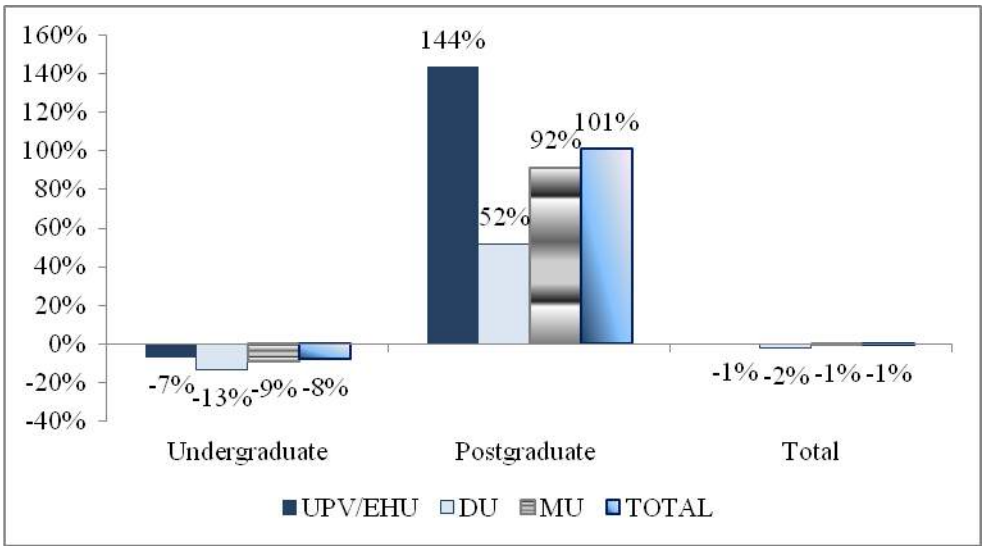
Year		06/07	07/08	08/09	09/10	10/11
UPV/EHU	Undergraduate	44,896	43,523	42,048	42,026	41,728
	Master	269	610	1,029	1,646	2,219
	Doctorate	1,758	1,744	1,995	2,177	2,720
	Total	46,923	45,877	45,072	45,849	46,667
DU	Undergraduate	8,069	7,530	6,957	6,831	6,642
	Master	1,475	1,512	1,432	1,914	1,988
	Doctorate	207	175	177	481	561
	Total	9,751	9,217	8,566	9,226	9,191
MU	Undergraduate	3,327	3,248	3,103	3,031	3,018
	Master	188	328	290	316	483
	Doctorate	121	131	149	107	109
	Total	3,636	3,707	3,542	3,454	3,610
Total Basque University System	Undergraduate	56,292	54,301	52,108	51,888	51,388
	Master	1,932	2,450	2,751	3,876	4,690
	Doctorate	2,086	2,050	2,321	2,765	3,390
	Total	60,310	58,801	57,180	58,529	59,468
Public University	Undergraduate	79.8%	80.2%	80.7%	81.0%	81.2%
	Master	13.9%	24.9%	37.4%	42.5%	47.3%

(%)	Doctorate	84.3%	85.1%	86.0%	78.7%	80.2%
	Total	77.8%	78.0%	78.8%	78.3%	78.5%

Note: Figures on enrolments in master and doctoral programs from 2009/2010 onwards are not strictly comparable with the previous years' figures since they show the progressive introduction of the requirement of a master degree to be admitted in a doctorate program (compulsory from 2011/2012 onwards).
Source: Basque Ministry of Education, Universities and Science Policy

The total number of students enrolled in university studies has remained fairly constant in the last five years: a slight reduction of 1% is observed for the total number of students. However there is a clear restructuring in the type of studies followed: while the number of enrolments in undergraduate programs has persistently decreased along the years, the number of students enrolled in postgraduate programs has experienced a large increase, duplicating in these five years. This increase affects both doctorate and master enrolments and both public and private universities, although it is more acute in the former, in clear consonance with the reform of the structure of university studies introduced by the LOMLOU (2007).

Figure 2.9. Change in the number of students enrolled in the Basque Universities, academic years 06/07 and 10/11



Source: Basque Ministry of Education, Universities and Science Policy

Focusing on undergraduates, there is a reduction in the enrolment of students from 2006-2007 to 2010-2011 in the three Basque universities. The reduction has been higher in the private universities (especially in the University of Deusto) than in the public one. The reduction of the total number of enrolments has been accompanied by a reduction in the number of new entrants, although on average this reduction has been smaller (and even positive in Mondragon University). The drop-out rates[7] are much lower in the private universities than in the public one. Actually, for the UPV/EHU the academic year 2008-2009 shows a medium-high drop-out rate (17.8%) when compared with other Spanish universities, although it represents an important improvement with respect to the previous academic year with available data[8]. Drop-out rates tend to be higher in the fields of Technical Studies and Experimental Sciences in the UPV/EHU and in Humanities in both Deusto and Mondragon (see Appendix II).

[7] Drop-out rate: percentage of students that were enrolled two years before and are not enrolled in the two following courses.
[8] The drop-out rates for the Spanish public universities in 2006-2007 ranged between 6.66% and 33.13% being the median value 23.52%; in 2008-2009, the drop-out rates ranged between 7.19% and 29.88% being the median value 17.86%. See the CYD Foundation annual report for more detailed information of other universities or the document "UPV/EHU's system of indicators for social accountability" elaborated by the UPV/EHU Social Council in 2011.

Table 2.8. Undergraduate students in the Basque universities.

	Year	06/07	07/08	08/09	09/10	10/11	Growth rate 06/07 to 10/11 (cumulative)
UPV/EHU	Enrolment (1)	44896	43523	42048	42026	41206	-8.2%
	New entrants (2)	9715	9300	9045	9133	9019	-7.2%
	Graduated (3)	7226	7050	6914	7202	6306	-12.7%
	New enrolment rate: 100x(2)/(1)	21.6%	21.4%	21.5%	21.7%	21.9%	
	Graduation rate: 100x(3)/(1)	16.1%	16.2%	16.4%	17.1%	15.3%	
	Dropout rate	26.0% *	n.a.	17.8%	n.a.	n.a.	
DU	Enrolment	8069	7530	6957	6831	6642	-17.7%
	New entrants	2016	1710	1571	1867	1872	-7.1%
	Graduated	1818	1768	1643	1661	1594	-12.3%
	New enrolment rate: 100x(2)/(1)	25.0%	22.7%	22.6%	27.3%	28.2%	25.0%
	Graduation rate: 100x(3)/(1)	22.5%	23.5%	23.6%	24.3%	24.0%	22.5%
	Dropout rate	3.5%	3.9%	4.5%	4.0%	4.5%	
MU	Enrolment	3327	3248	3103	3031	3018	-9.3%
	New entrants	658	687	645	640	665	1.1%
	Graduated	n.a.	n.a.	n.a.	n.a.	n.a.	
	New enrolment rate: 100x(2)/(1)	19.8%	21.2%	20.8%	21.1%	22.0%	
	Dropout rate	6.7%	5.6%	4.4%	5.2%	5.0%	

Notes: (*) Data corresponds to the academic year 2004/2005. Drop-out rate is defined as the percentage of students that were enrolled two years before and are not enrolled in the two following courses.
Source: UPV/EHU, DU, and MU

The number of academic staff (teaching and research) has increased steadily through the last five years, especially in the UPV/EHU. The administrative staff has also increased over the period, at the same rate than the academic staff in the UPV/EHU and at a much higher rate in the University of Deusto (it has decrease only at Mondragon University). With this evolution the administrative per academic staff is double in the University of Deusto than in the rest of universities. The average figure for Spain is 0.54, above the Basque average.

Table 2.9. Total number of academic and administrative staff in Basque universities per academic year

Year	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**Average annual rate of growth 06/07 to 10/11**
Academic staff						
UPV/EHU	4,863	5,070	5,124	5,316	5,298	2.2%
DU	585	585	599	579	614	1.2%
MU	307	318	332	308	310	0.2%
Total	**5,755**	**5,973**	**6,055**	**6,203**	**6,222**	**2.0%**
Administrative staff						
UPV/EHU	1,682	1,687	1,668	1,775	1,832	2.2%
DU	344	359	367	381	416	4.9%

MU	103	104	106	94	95	-2.0%
Total	**2,129**	**2,150**	**2,141**	**2,250**	**2,343**	**2.4%**
Administrative per academic staff						
UPV/EHU	0.35	0.33	0.33	0.33	0.35	0.0%
DU	0.59	0.61	0.61	0.66	0.68	3.6%
MU	0.34	0.33	0.32	0.31	0.31	-2.2%
Total	**0.37**	**0.36**	**0.35**	**0.36**	**0.38**	**0.4%**

Source: Basque Ministry of Education, Universities and Science Policy

The student-academic staff ratio has improved in the last five years, being on average 9.6 for the three universities and slightly lower for the UPV/EHU (8.8). This figure is well below the Spanish average that in the year 2009-2010 was 14.

Table 2.10. Total number of students per academic staff in Basque universities by year

	06/07	**07/08**	**08/09**	**09/10**	**10/11**	**Average annual rate of growth 06/07 to 10/11**
UPV/EHU	9.6	9.0	8.8	8.6	8.8	-2.3%
DU	17.0	16.1	14.6	16.6	15.8	-1.8%
MU	11.8	11.7	10.7	11.2	11.6	-0.4%
Total	**10.5**	**9.9**	**9.5**	**9.5**	**9.6**	**-2.1%**

Source: Basque Ministry of Education, Universities and Science Policy

2.2.2. System of governance and regulatory framework

Having as a general framework the LOU of 2001, the Basque Parliament approved in 2004 the Law 3/2004 of the Basque University System that replaced the previous Law 19/1998. This Law defines the Basque University System as it is understood today and deals with fundamental aspects. In particular, it recognises that the system comprises both public and private universities and also highlights the public responsibility and compromise to ensure a sustainable finance to the UPV/EHU, the only one of public ownership. The Law establishes that a new body, the Basque Universities' Council[9], is responsible of the coordination of the system, providing advice to the Basque Government in relation with universities and promoting the integration of the Basque System in the European space for higher education. The Law also defines new contractual figures for the academic staff in the UPV/EHU as well as the basic instrument of organization (the University Plan) and the finance structure of the Basque System.

The University Plan constitutes then the basic instrument for organizing the University System. Previously, the strategic planning directed by the Basque Government concerned only the public UPV/EHU. Since 2004, the planning affects the whole Basque University System. It is structured as a four year plan with five objectives:

- to evaluate the university system;
- to determine its needs;
- to establish the objectives and priorities during the four years that it is in force;
- to estimate financing needs and sources of income for the system;
- to guarantee a sustainable finance model for the UPV/EHU, adequate for the accomplishment of its goals.

[9] The Council is formed by members of the Basque Government, local authorities and representatives of the universities in the system.

Figure 2.10. Evolution of the University Plans in the Basque Country

Source: Basque Ministry of Education, Universities and Science Policy

The integral character of the University Plan together with the Law 3/2004, as well as the direct public support to private universities (through program contracts) is distinctive of the Basque University System, and cannot be found in other Autonomous Communities.

The University Plan 2011-2014, recently approved, is the Basque University System strategic framework for the next years. The development of this Plan is not starting from scratch, but that it has been based on an evaluation and analysis of its predecessors. Therefore the Plan embodies a strategy capable to drive a shared vision of the Basque University System from a qualitative and a quantitative point of view. This strategic planning responds to a specific stage the higher education itinerary, oriented not only to the generation of knowledge but also to its transference and to the consequent generation of wealth. The Plan is a horizontal strategy capable to generate technology capabilities and promote people training to tackle other topics as environment and territory, social welfare, etc. and therefore is closely linked to other strategic plans of the Basque Government (see Chapter 3). The final objectives of the University Plan are translated into strategic objectives that have implementation programs associated (Box 2.1). Inside these programs different actions are proposed in order to achieve their objectives. The actions are of different character: for the system, transversal to all agents implied (grants, calls, etc.); in collaboration, implemented through specific programme contracts with the different universities; and in support to the public higher education with the objective to achieve the financial sustainability of the UPV/EHU.

The Ministry of Education, Universities and Research is the Basque government ministry in charge of education issues. Inside this ministry, the vice-ministry of Universities and Research deals specifically with the higher education system. It counts with two departments: Universities and Scientific Policy. This Ministry is in charge of the elaboration and management of the University Plan.

Box 2.1. The University Plan 2011-2014: mission, objectives and programs

MISSION: Strategically promote the development of the Basque University System Basque and define a framework agreed with their agents to be able to respond to the challenges and needs of Basque society in training, generation and transfer of knowledge, and to be recognized internationally for the high quality of teaching and research as well as by its nature socially responsible and effective management.			
FINAL OBJECTIVES		**STRATEGIC OBJECTIVES**	**PROGRAMS**
Develop the changes necessary to meet the growing needs of higher education in Basque society, taking advantage of the opportunities from integration in the EHEA.	***TEACHING***	**OE1.** Consolidate a reference teaching in formal education, able to use all opportunities of the EHEA from the innovation and the commitment to trilingualism. **OE2.** Develop an attractive offer of permanent education. **OE3.** Answer the distinctive demands of the Basque society, in particular, promoting Euskera in all services and activities of university life.	• P.1. Teaching Innovation Program • P.2. Training program for teaching • P.3. Program for the promotion of trilingualism
Increase projection and international recognition of the research activity to participate actively in the ERA.	***RESEARCH***	**OE4.** Increase the productivity and impact of the Basque research activity **OE5.** Internationalize the research activities of the Basque university system.	• P.4. Program for the promotion of research • P.5. Internationalization program
Provide knowledge, values, critical thinking and space reflection at an advanced society and a business network increasingly knowledge-intensive from a position of leadership in the Science-Technology-Enterprise- Society system.	***TRANSFERENCE***	**OE6.** Reinforce the role of the university as a space for reflection that could encourage critical thinking, equal opportunities, entrepreneurship and sustainability as well as transmission knowledge in all its expressions. **OE7.**Transform universities in the main referral agent in knowledge transfer to the business.	• P.6. Program for the dissemination of science and technology • P.7. Program University - Business
Ensuring the supply of services of quality by attracting, training and retaining the brightest teachers, researchers, technicians and managers and using resources fairly, efficiently and transparently.	***SOCIETY***	**OE8.** Train, retain and attract talent by creating conditions that enable the development of an attractive career, especially for researchers. **OE9.** Ensure supply of quality services from an efficient and transparent use of resources and a balanced and sustainable funding model.	• P.8. Support program for students and accessibility to learning • P.9. School and Society Program

2.2.3. Funding mechanisms in the Basque higher education system

In terms of total expenditure in HEIs, the starting point for the current University Plan is disappointing: the total expenditure as percentage of GDP or expenditure by student as percentage of GDP per capita is well below the figures for Spain, the EU or the OECD average. This is especially true in terms of the expenditure in HEIs R&D funds: although the Basque Country total expenditure in R&D if well above the Spanish one, its expenditure in R&D in HEIs much lower.

In this respect the Basque Government objective is to increase the expenditure in HEIs to 1.3% of the GDP by 2014 and to 1.5% by 2020, paying special attention to the expenditure in R&D. This objective requires a strong commitment of public resources.

Table 2.11. Financial data of the HEIs (year 2008)

	Expenditure in HEIs (1)	**Expenditure per student in HE (2)**	**Public expenditure in HEIs (3)**	**Expenditure in HEIs' R&D (1)**
Basque Country	0.97	35.00	76.00	0.28
Spain	1.20	40.00	78.90	0.36
EU21	1.30	39.00	78.20	n.a.
OECD	1.50	41.00	68.90	0.39

Notes: (1) as % GDP, (2) as % GDP per capita, (3) as % of total expenditure
Source: "Education at a Glance. 2011" and Basque Ministry of Education, Universities and Science Policy

The University Plan 2011-2014 includes the funding mechanisms used to achieve the proposed objectives for the Basque University System. The Basque Country uses a mixed model of funding for the public university, part unconditioned and part conditioned to outputs, with an explicit support (conditioned on outputs), although differentiated, to private universities. The plan does not include other sources of earnings coming from other ministries of the Basque government (especially in R&D support) or from other public authorities (local, national or European).

Most of the resources included in the last two University Plans have been and are allocated to the UPV/EHU, the only public university. However it is worth mentioning the increase in the financial support to the private universities of the system via programme contracts. In 2008, 51% of the 550 M€ budget of the UPV/EHU, 5% of the 61 M€ budget of the University of Deusto and 9% of the 32 M€ budget of the Mondragon University, were respectively covered through funds of the University Plan.

The funding of the UPV/EHU has three components: one not conditioned to results and negotiated in the yearly government budget; one in support to the investment in infrastructures; and one conditioned to results and implemented through different programme contracts. There is a progressive evolution towards funds associated to results through programme contracts: while they accounted for 4% of the allocated funds in 2007, the prevision is that they will account for as much as 12% in 2014.

Table 2.12. Resources allocated by the University Plans 2007-2010 and 2011-2011

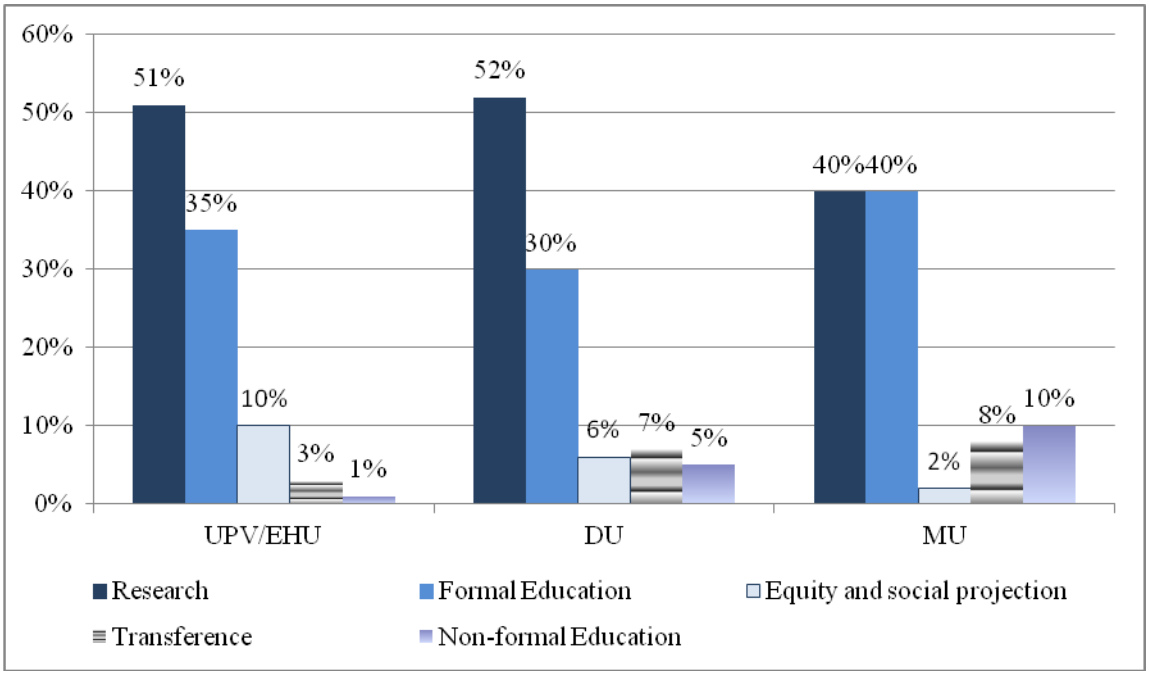
(Millions €)	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
UPV/EHU								
Not conditioned	254.1	264.8	276.9	297.0	288.8	294.3	303.3	312.3
Programme contract	9.8	11.3	14.4	20.0	31.2	34.4	37.9	44.0
Infrastructures plan	10.1	28.1	29.6	28.8	16.8	20.0	22.0	25.0
Total UPV/EHU	**274.0**	**304.2**	**320.9**	**345.8**	**336.8**	**348.7**	**363.2**	**381.3**
Programme contract DU	1.5	3.0	3.2	3.4	4.5	6.0	8.0	10.0
Programme contract MU	2.2	3.0	3.2	3.4	4.0	5.5	7.1	9.0

TOTAL	277.7	310.2	327.2	352.5	345.2	360.2	378.2	400.3
Relative composition of the UPV/EHU funds								
Not conditioned	93%	87%	86%	86%	86%	84%	84%	82%
Programme contract	4%	4%	4%	6%	9%	10%	10%	12%
Infrastructures plan	4%	9%	9%	8%	5%	6%	6%	7%
UPV/EHU funds over total funds	99%	98%	98%	98%	98%	97%	96%	95%

Source: Basque Ministry of Education, Universities and Science Policy

With respect to the programme contracts, each university subscribes five of them relating the different objectives of the University Plan, in particular, formal education, non-formal[10] education, research, transference and equity and social projection. The contracts imply annual funds through the life of the Plan, provided the fulfilment of some requirements in terms of outputs which are defined in the same Plan. As it can be seen, most of the resources allocated through programme contracts aim to the achievement of the research objective, with an important portion directed towards formal education.

Figure 2.11. Relative importance of the programme contracts included in the University Plan 2011-2014



Note: the figures are the percentage of funds allocated through each programme contract over the total amount of funds allocated through programme contracts to each university.
Source: Basque Ministry of Education, Universities and Science Policy

Looking more in detail in the budgets for each university, the origin of their funds is quite different. As expected the public university main source of funds is the public sector and around 70% of its yearly budget come from this source; funds coming from fees have tend to go down both in absolute terms and as a percentage of the total budget, associated with the reduction in the number of students; the contribution of firms (through contracts) to the budget of the UPV/EHU is anecdotic, amounting in the best years up to 1.5% of the total budget; finally, funds coming from other sources have tended to increase in the last years, one part showing long term loans received from the Basque Government or the Central Administration.

[10] Formal education comprises all programmes whose objective is to obtain an official degree; non-formal education includes programmes that do not conduce to obtain an official degree; informal education comprises other non structured studies.

The University of Deusto finances most of its budget through fees, coming both from formal education and, to a lesser extent, from life-long learning; although the absolute amount of funds from fees has increased every year, its participation in the budget has tended to decrease. The participation of the public sector, mainly in the form of non-competitive funds, in Deusto's budget has also increased and almost double in absolute terms. Finally, the contracts with firms contributed to a variable proportion of the budget, being 2010-2011 the year with the higher amount of funds from this source.

Mondragon University has a more diversified funds structure: in 2010, 48% of its budget was financed by student fees, 26.5% by the public sector, 15.5% by contracts with firms, and 10% by other sources. The relative importance of the public sector and the firms' contracts as sources of funds has tended to increase since 2006. It is the Basque university with the highest firms' contribution to its budget, showing its more entrepreneurial nature and its relation with the Mondragon Corporation.

Table 2.13. Budgetary structure of Basque universities.

		2006	2007	2008	2009	2010
UPV/EHU	Fees	15.4%	11.9%	11.4%	8.8%	7.8%
	Public Sector	70.7%	72.1%	71.1%	73.0%	69.2%
	Firms	0.4%	0.5%	1.5%	0.9%	1.3%
	Other	13.5%	15.4%	16.0%	17.2%	21.7%
	Total Budget	**406M€**	**443M€**	**550M€**	**566M€**	**610M€**
DU	Fees formal education	75.3%	74.5%	72.6%	72.6%	67.8%
	Fees life-long learning	3.6%	3.9%	3.8%	4.6%	5.1%
	Public Sector-competitive	0.8%	1.4%	1.4%	5.0%	2.4%
	Public Sector-non competitive	8.1%	10.2%	11.0%	10.0%	11.0%
	Firms	6.2%	4.9%	6.7%	3.3%	9.4%
	Other	5.9%	5.1%	4.5%	4.5%	4.3%
	Total Budget	**59M€**	**61M€**	**64M€**	**63M€**	**72M€**
MU	Fees formal education	42.6%	40.9%	39.8%	40.3%	42.2%
	Fees life-long learning	7.0%	6.5%	6.8%	5.7%	5.8%
	Public Sector-competitive	12.9%	15.7%	17.5%	16.3%	17.0%
	Public Sector-non competitive	7.6%	6.9%	7.5%	7.5%	9.5%
	Firms	13.5%	13.9%	14.8%	17.9%	15.5%
	Other	16.4%	15.8%	12.8%	9.6%	10.0%
	Total Budget	**n.a.**	**32M€**	**n.a.**	**n.a.**	**n.a.**

Sources: Annual report for the UPV/EHU; data provided for MU; University Plan for DU.

Fees at the public universities are regulated and vary according to the degree of experimentalism of the degree (that requires or not the use of labs). The fees charged by the UPV/EHU are slightly above the Spanish average but below the average charge by universities in Madrid or in Catalonia. Private universities are free to set their own fees according to the market. They are higher both for undergraduate and graduate studies, although the difference is larger in the undergraduate fees.

Table 2.14. Fees by ECTS: Basque universities and selected public universities, 2011-2012.

	Bachelor Degree	Master Degree
Average Catalonia	15.16€-23.72€	24.31€-31.24€
Average Comunidad de Madrid	14.05€-21.94€	25.89€-32.93€
Average Spanish public universities	11.94€-18.71€	22.64€-29.93€
UPV/EHU	13.42€-18-92€	23.62€-32.91€
MU	72.20€-137.3€	86.60€-130.0€
DU	74.00€-156.0€	82.50€-270.0€

Note: Some official masters of the public universities might have differentiated prices upon approval charging at most 30% of its cost (the most expensive is 92.28€ per ECT credit). Non official master degrees can set prices without the limits set by the law.

Source: "Statistic of university public prices 2011-2012" of the Ministry of Education, Culture, and the Sport and own information provided by the private universities.

2.2.4. Quality assurance and evaluation in the Basque Country

The Agency of Quality Evaluation and Accreditation of the Basque University System (UNIBASQ – Agencia de Evaluación de la Calidad y Acreditación del Sistema Universitario Vasco) was created under the Law 3/2004 of the Basque University System. In 2009, it went through a series of changes to adapt to the European directives for quality assurance agencies. And in January 2012 a Law project, still pending approval from the Basque Parliament, was presented to adapt the Agency to the requirements of the European Association for Quality Assurance in Higher Education (ENQA).

Unibasq is a state owned body governed by private law attached to the Department of Education, Universities and Research of the Basque Government. Its objective is the evaluation, accreditation and certification of quality in the area of the Basque University System, while taking the Spanish and international framework into account.

The attainment of this objective is achieved through the development of activities that:

- Contribute to improving the quality of the Basque University System, in the aspects of teaching or learning, research and management.
- Provide information and criteria to the public administrations and the universities in their decision making processes.
- Offer information to the society on the work of the Basque University System.

CHAPTER 3 CONTRIBUTION OF RESEARCH TO REGIONAL INNOVATION

3.1 The HEI's research in the Basque Country

Total R&D expenditure in the Basque Country has significantly increased in recent years, from the 1.44% of the GDP in 2005 to the 2.08% of the GDP in 2010. In 2010, 1,306.3M€ were invested in scientific research and technology development in the Basque Country (see Chapter 2).

R&D is an investment that more than double in the public accounts since 2005. Three Ministries in the Basque government manage R&D funds: Industry, Innovation, Commerce and Tourism, Education, Universities and Research, and Agriculture. Moreover since 2008 there is an extraordinary contribution (Innovation Fund) of 40 million Euros annually that directly depends on the Presidency of the Basque government and it is used to finance programmes in the areas of Scientific Policy and Technology (CICs, BERCs, and strategic research; see below for a Description). Most of the R&D public funds are managed by the Ministry of Industry, in particular the Department of Technology, showing the importance of industrial R&D in the Basque Country. However, the relative importance of the Ministry of Education has increased from 11.7% of all R&D public funds in 2005 to 17.5% in 2011.

Table 3.1 Basque Government R&D Budget.

	2005	2006	2007	2008	2009	2010	2011	Growth 2005-2011, cumulative
Total Basque government budget (1)*	**7,117**	**7,623**	**8,740**	**9,940**	**10,487**	**10,315**	**10,549**	**48%**
Budget Ministry of Education, Universities, and Research (2)	1,898	2,063	2,253	2,436	2,633	2,751	2,670	41%
Budget Ministry of Industry, Innovation, Commerce and Tourism (3)	286	304	323	349	392	411	403	41%
Budget Ministry of Agriculture (4)	148	152	158	170	177	291	283	92%
Total R&D Budget (5)	**111**	**126**	**136**	**192**	**213**	**221**	**229**	**107%**
R&D Budget Ministry of Education (Scientific Policy Department) (6)	13	20	23	28	37	40	40	209%
R&D Budget Ministry of Industry (Technology Department) (7)	85	91	95	103	113	120	129	52%
R&D Budget Ministry of Agriculture (8)	13	16	18	21	22	22	21	62%
Innovation fund				40	40	40	40	
BERC infrastructures (Scientific Policy Dep.) (9)				8	6	5	2	
BERCs research activity (Scientific Policy Dep.)(10)				9	10	10	11	
CICs (Technology Dep.) (11)				9	9	10	12	
Strategic research (Technology Dep.) (12)				10	11	11	11	
%R&D Budget over total budget (13)=(5)/(1)	1.6%	1.7%	1.6%	1.9%	2.0%	2.1%	2.2%	

% R&D (Scientific Policy) over total budget (14)=[(6)+(9)+(10)]/(1)	0.2%	0.3%	0.3%	0.5%	0.5%	0.5%	0.5%	
% R&D (Technology) over total budget (15)=[(7)+(11)+(12)]/(1)	1.2%	1.2%	1.1%	1.2%	1.3%	1.4%	1.4%	
% R&D budget over budget of the Ministry of Industry (16)=(7)/(3)	0.7%	1.0%	1.0%	1.2%	1.4%	1.4%	1.5%	
% R&D budget over budget of the Ministry of Education (17)=(6)/(2)	29.7%	29.8%	29.4%	29.5%	28.9%	29.1%	32.0%	

* Note: there are some R&D extra expenditures managed by the Ministry of Health and Consumer Affairs that are used to finance its own Research Programme and the R&D part of the Programme Contract with the Basque Health Service. However, these items are not accounted as expenditures in R&D in the Basque Government Budget.
Source: Basque Government.

The steady growth in the university R&D expenditure has also been significant in recent years and accounted for 17.2% of the total Basque expenditure in R&D in 2010. This percentage is lower than the Spanish one (27.8%) or the EU average (23.9%) and reflects that the Basque University System is not at the centre of the R&D system like in other countries and that a variety of agents conform a complex science and innovation system.

The Basque Country efforts in R&D are particularly visible in terms of human resources: the number of researchers (full- time equivalent) in Euskadi grew from 8.1‰ of all employment in 2005 to 11.4‰ in 2010, surpassing the growth in Spain or in the EU15.

Table 3.2 R&D employment as % of total employment

	2005	2006	2007	2008	2009	2010
Personnel in R&D activities per thousand employment (includes technical and auxiliary staff)						
EU15	11.6	11.9	12.1	12.4	12.8	12.9
Spain	9.2	9.6	9.9	10.6	11.7	11.8
Basque Country	13.0	13.2	14.2	15.1	17.0	18.0
Researchers per thousand employment						
EU15	7.1	7.3	7.3	7.6	7.9	8.0
Spain	5.8	5.9	6.0	6.5	7.1	7.1
Basque Country	8.1	8.3	9.1	9.5	10.6	11.4

Note: In full-time equivalent
Source: INE, Eustat and Eurostat.

The number of researchers (full time equivalent) in the Basque HEIs has also steadily grown in the last five years although at a slower pace than in the rest of sectors. In 2010, 28.8% of all researchers in the Basque Country were working in one centre of the HES. As a shortcoming, there is a low proportion of technical and auxiliary personnel at universities, a recurrent problem which can affect the R&D management efficiency. However this type of personnel has grown faster than the number of researchers between 2005 and 2010.

Table 3.3 R&D employment in HEI's. Basque Country

	2005	2006	2007	2008	2009	2010	Average annual growth
R&D human resources Basque Country							
Total Personnel R&D	13,124	13,714	15,571	16,683	17,218	16,921	5.21%
Researchers	8,165	8,629	9,816	10,374	10,518	10,578	5.32%
Other	4,959	5,085	5,755	6,310	6,701	6,342	5.04%

R&D human resources HES Basque Country							
Total Personnel R&D	3,019	3,000	3,170	3,165	3,438	3,572	3.42%
Researchers	2,605	2,631	2,769	2,722	2,932	3,047	3.19%
Other	415	369	401	443	506	524	4.80%
HES as percentage of the total R&D human resources							
Total Personnel R&D	23.0%	21.9%	20.4%	19.0%	20.0%	21.1%	
Researchers	31.9%	30.5%	28.2%	26.2%	27.9%	28.8%	
Other	8.4%	7.3%	7.0%	7.0%	7.5%	8.3%	

Note: In full-time equivalent; "Other" includes technical and auxiliary staff.

Source: INE

Initiatives of recent implementation, as Ikerbasque (Basque Science Foundation) have allowed the incorporation of 99 outstanding researchers that already contribute to 10% of the total scientific production of the Basque Country, helping to alleviate the shortfall of generational renewal of the R&D staff at the scientific system (see box below).

The earnings from R&D (including contracts with firms) for the Basque universities have increase both in the UPV/EHU and in Mondragon University. In Mondragon the private contribution to R&D (in form of contracts) is above 80% on average while this percentage is around 20% both in Deusto and in the UPV/EHU. R&D earnings constitute a small fraction of the total budget for the three universities.

Table 3.4. R&D earnings in the Basque universities.

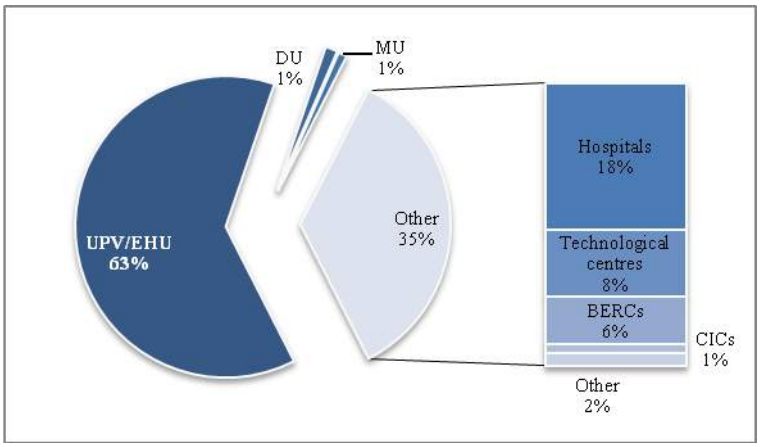
		2006	2007	2008	2009	2010
UPV/EHU	R&D earnings	48,807,533€	81,005,314 €	54,779,880 €	54,225,309 €	72,918,487 €
	%Private sources	27.1%	15.9%	21.9%	21.0%	17.2%
	As % of total budget	12.0%	18.3%	10.0%	9.6%	12.0%
DU	R&D earnings	5,461,457 €	5,085,530 €	7,208,963 €	6,183,768 €	4,077,339 €
	%Private sources	28%	15%	20%	18%	25%
	As % of total budget	9.1%	8.3%	11.2%	10.5%	6.0%
MU	R&D earnings	4,298,573 €	4,871,450 €	6,031,903 €	7,444,842 €	8,476,913 €
	%Private sources	77.8%	80.3%	84.4%	79.8%	82.7%
	As % of total budget	n.a.	15.2%	n.a.	n.a.	n.a.

Source: Basque universities.

Spain is the ninth world power in scientific production and the twelfth in terms of its visibility and impact in relation to the H-index. Euskadi is the seventh region of the State in absolute volume of research production. Between 2003- 2008, the Basque Country has increased its scientific production by 76%, compared to Spanish growth of 49%, and to the world (34%).

Around 70% of the Basque Country indexed publications are research articles that are published in journals of international visibility. According to the recent report "Science in Euskadi 2010" elaborated by Ikerbasque, the scientific production of the Basque Country, in terms of indexed publications, has slightly increased in the last years and currently is around 5% of the Spanish production and 0.13% of the world production. The UPV/EHU is by far, the principal scientific agent of the Basque Country in what regards to visible research production.

Figure 3.1. Contribution of the Basque University System to the scientific production (2003-2008)



Source: ISI Web of Knowledge through the "Report of Science in Euskadi. 2010" (Ikerbasque)

The Basque scientific system is specialized on classical sciences: physics, chemistry and materials science mainly (see Appendix III). In recent years there has been a diversification into scientific areas of transversal and interdisciplinary character as Biomedicine, ICTs, and Social and Humanities sciences. There is a shift from basic science as physics or mathematics to instrumental specialties related to engineering, materials sciences, computing, electronics and electricity or chemical engineering.

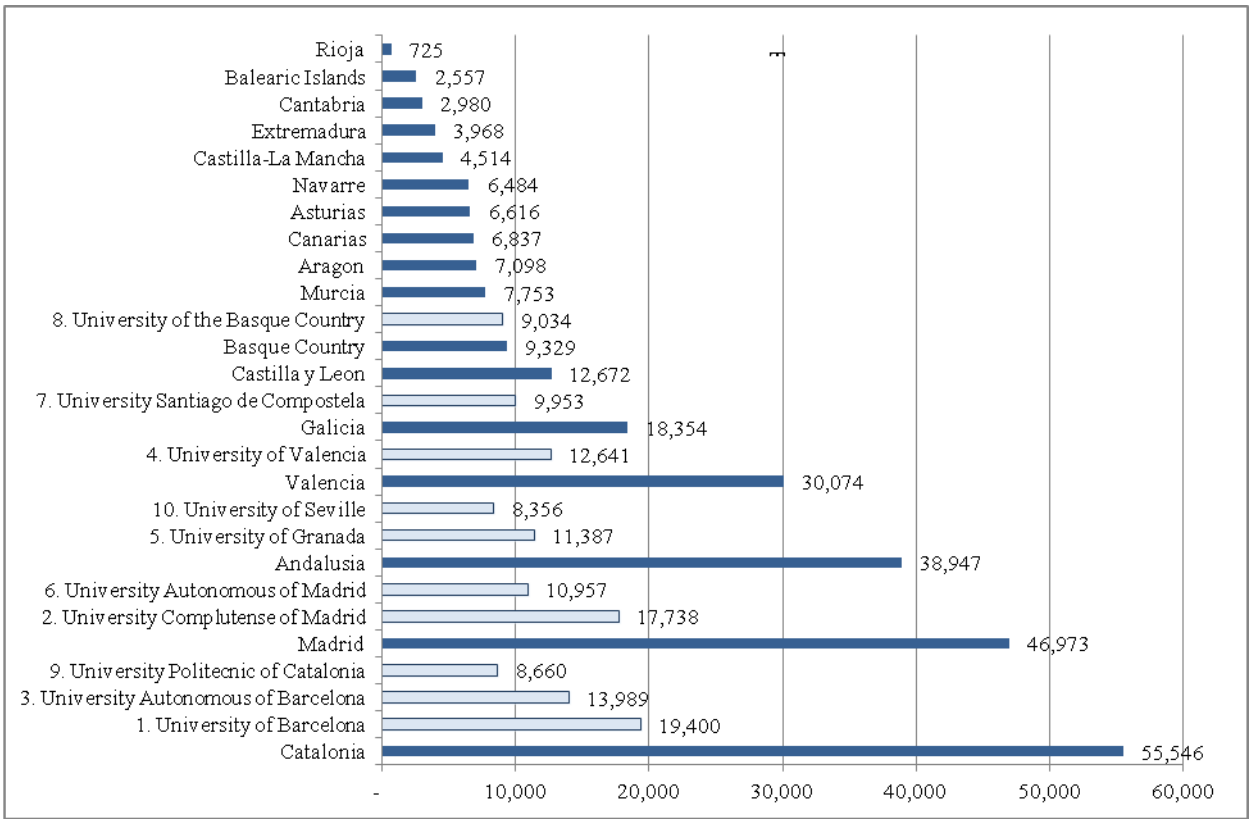
Concentrating on the scientific output of the Spanish universities, the Basque Country produced 3.6% of all the articles affiliated to Spanish universities and indexed in the ISI Web of Knowledge during the period 2002-2010[11]. In absolute terms of production the Basque Country ranks as the seventh Autonomous Community in Spain, after Catalonia, Madrid, Andalusia, Valencia, Galicia, and Castilla y Leon. When looking at individual universities, the UPV/EHU stands as the eight Spanish university in terms of absolute production. The UPV/EHU ranks among the 301-400 best universities in the world (among the 4-7 best universities in Spain) according to the Shanghai Ranking in 2012, being especially good its position in mathematics (among the 101-150 best universities in the world)[12]. The presence and visibility of the UPV/EHU in the web is also important: the university ranks as the 170th university in the world in this respect (the 56th in Europe and the 7th in Spain) according to the Webometrics[13].

[11] According to the IUNE Observatory of Research Activities in Spanish Universities, developed by "Alliance 4 Universities", an alliance of Carlos III University of Madrid, Autonomous University of Madrid, Autonomous University of Barcelona, and Pompeu Fabra University and financed by the Spanish Ministries of Science and Innovation, and Education.

[12] The UPV/EHU did not appear in the 2011 Shanghai ranking of best 500 universities around the world. However recent evidence points to a misclassification of the UPV/EHU due to problems in the affiliation assignation of the published papers. Re-computing the scores correcting these errors the UPV/EHU should have also been included in the 300-400 best universities group in 2011, being the sixth university in Spain (above the University of Granada or the University of Santiago de Compostela) according to this criterion (see "Universities from Spain in the Shanghai academic ranking", 2012, by Domingo Docampo).

[13] The Ranking Web or Webometrics (www.webometrics.info) is a ranking elaborated basis by the Spanish National Research Council (CSIC) every 6 months since 2004. The last edition released in 2012 ranked almost 21,000 Higher Education Institutions around the world.

Figure 3.2 Scientific production by region and by the 10 more productive universities



Note: Scientific production measured as the number of publications in journals indexed in the ISI Web of Knowledge.
Source: IUNE Observatory.

The University of Deusto created Deusto Advanced Research Centre (DARC) as part of its 2011-2014 Strategic Plan to set the strategy to foster research. Through DARC, a programme was set up to attract talent to boost research in strategic areas and achieve qualitative improvements in the impact and role of its research teams on the international level. 25 international researchers joined through this programme in 2011. This initiative will be continued in the coming years to attract new researchers. An International Projects Office has been created to encourage the research teams' participation in the Framework Programme and offer technical backing for drawing up project proposals and setting up consortia and networks. A programme for strategic alliances has also been implemented with agents from the Basque science and technology field. It started out with Tecnalia and BCAM and the development of previously signed agreements with American universities within the framework of the Aristos Campus Mundus Consortium. Finally, the creation of Deusto International Research School was promoted to boost training of new researchers and set up an international grants programme for researchers in training that envisages a hundred new researchers signing on PhD programmes at the University of Deusto. A mobility, exchange and competence development programme has also been set up.

Within the Basque Country, the scientific system in general and the Basque Universities in particular are recognized as reference agents of knowledge and technology transfer. The three Basque Universities have a Technology Transfer Office (*Oficina de Transferencia de Resultados de la Investigación*, OTRI).

3.2 Responding to Regional needs and demands

Firstly, from a policy point of view the Basque HEI has two cornerstones, first the University Plan and secondly the Science, Technology and Innovation Plan. The University Plan main objective is to enhance the Basque University System and to define a framework for action

agreed with all the involved agents in order to respond to the challenges and needs of the Basque society in education and knowledge transfer.

The contribution of the University System to the knowledge generation and transfer connects with the Science Technology and Innovation Plan 2015 (PCTI 2015). Many of the scientific capabilities that explicitly supports the University Plan such as education, attraction of researchers, support to groups of excellence, investment and the maintenance of scientific and technological infrastructure , the development of university- industry projects or the creation of firms incubators and industrial parks have also its presence at the PCTI 2015.

Secondly, and regarding the agents involved, there is an important instrument for collaboration. The Basque Technology Network was set in 1997 in the framework of the Science and Technology Plan 1997-2000 to foster and better coordinate the supply and transfer of scientific and technological knowledge developed by accredited non-profit institutions to the Basque productive sector. In 2005 the scope of Basque Technology Network was broadened to become the Basque Technology, Science and Innovation network (RVCTI). The RVCTI is composed by the Science System, the Technology System and Innovation Support System.

The Science System is composed by the three universities of the Basque University System, as it has been presented in chapter 2; they count with an important number of mechanisms for knowledge generation and transference and for fostering relationships between them and the Research and Technology Organisations (RTOs) and firms. Euskadi has a Science System that has grown significantly in recent years when new organizations have been set up (notably the Basque Excellence Research Centres, BERC) which include some top international research groups.

The BERCs are focused on knowledge generation in areas of scientific interest to the Basque Country. They are structured around a research group of international reference that is characterized by its novelty within the Basque Innovation System as well as by its excellence. Those centres are focused also in the development of collaborative links with the Basque universities, mainly with the UPV/EHU, and in the attraction of outstanding international researchers. Nowadays there are six different BERCs working in different areas: Climate Change, Applied Mathematics, Cognition Brain and Language, Physics, Biophysics and Materials. The six centres had in 2011 a total of 188 researchers (full-time equivalent) and a combined budget of 13.9M€, 50% of which is financed by the BERC Programme that is managed by the Basque Ministry of Education.

Box 3.1 BCBL – Basque Cognition, Brain and Language Center

The centre started its operations in 2009 in San Sebastian. The Department of Education, Universities and Research of the Basque Government promoted its creation and Ikerbasque, Innobasque, the UPV/EHU and the Diputación Foral de Gipuzkoa are partners.

The Basque Center on Cognition, Brain and Language is a world class interdisciplinary research centre for the study of cognition, brain and language. The specific aim of its research activity is to unravel the neurocognitive mechanisms involved in the acquisition, comprehension and production of language, with special emphasis on bilingualism and multilingualism.

More specifically its research is focused in:

- Language acquisition, representation and processing
- Computer modelling of language processing
- Language disorders, learning disorders, and neurodegeneration of language processing
- Sociolinguistics, cultural norms, context of language use, social variables
- Formal studies of the Basque language (Euskera)
- Advanced methods for cognitive neuroscience

At the moment it employs more than 60 people between researchers, technical support and administrative staff. It is funded partially through the Basque Government program BERCS and through competitive regional, national and international projects. Its director, Manuel Carreiras, was awarded with and ERC Advance Grant in 2011 (2.5M€ for 5 years) to study changes in the brain when learning to read a first and a second language (see Table for detailed structure and outputs).

Together with the BERCs, the Cooperative Research Centres (*Centros de Investigación Cooperativa*- CIC) were created with the mission to develop selective research (basic and applied) in regional priority sectors or technologies. The CICs are designed with the aim of creating an effective framework of collaboration that strengthens interdisciplinary basic and applied world-class research in order to provide technology transfer and promote competitiveness of the Basque Industry in strategic areas.

Those centres can be organized as associations of different research groups or as virtual networks. The CICs respond to an overall strategy to facilitate rapid generation and transference of knowledge. This knowledge is geared to certain fields, because of their contribution to the Basque economy sectors (manufacturing) or because of their alignment with strategic diversification policies (e.g. bio or nanosciences). The Basque Country has seven CICs in the following areas: biomaterials, biotechnologies, manufacturing, micro-technologies, nanosciences, tourism, and energy technologies. The seven centres had in 2011 a total of 287 researchers (full-time equivalent) and a combined budget of 38.7M€, 56% of which is financed by the Basque Ministry of Industry.

Box 3.2 CIC nanoGUNE- Nanoscience Cooperative Research Centre

The CIC nanoGUNE is a newly established centre created with the mission of addressing basic and applied world-class research in nanosciences and nanotechnology, fostering high-standard training and education of researchers in this field, and promoting the cooperation among the different research agents and the Basque industrial sector.

The main objectives of CIC nanoGUNE are the following:

- To lead, support and coordinate research in nanosciences and nanotechnology in the Basque Country.
- To promote technology transfer and the development of a nanotechnology-based Industry.

- To support new academia curricula and high-level training of researchers in nanosciences and nanotechnology.
- To foster networking and the creation of alliances with entities and regions all over the world.
- To strengthen the social use of research and the public understanding of science, including science and society issues.

The CIC nanoGUNE is composed of:

- A newly created physical section, the core of the centre, with its staff (management, researchers, technicians, and supporting administration) oriented to open new areas of strategic research in nanosciences and nanotechnology. It strives to achieve the generation of essential knowledge and basic instruments, and at the same time to participate in the development of applications, along with other agents of the virtual section.
- A virtual section, which brings together research groups that are working in strategic areas of nanosciences and nanotechnology in the Basque Country. The mission of this virtual section is to promote cooperation between agents, including the physical core, so that the system's abilities can be maximized.

(See Table for detailed structure and outputs)

Table 3.5 Basic excellence research centres (BERCs)

	BERCS	BCAM	BC3	BCBL	DIPC	UB Biophysics	MPC
	Year of creation	2008	2008	2008	2008 (2000*)	2008 (2000*)	2008 (2000*)
	Field	Applied Mathematics	Climate Change Economics	Neuro-linguistics	Basic and Applied Physics	Biophysics	Materials
	Full time equivalent researchers	46	16	56	31	46	32
	Other personal	6	7	19	10	54	7
	Annual Budget	8,514,957 €**	1,948,446 €	4,200,442 €	4,218,393 €	1,187,162 €	2,370,458 €
Sources of funding	% Basque Ministry of Education	22.00%	76.73%	60.64%	29.78%	91.90%	26.81%
	% Basque Ministry of Industry	--	1.23%	--	19.75%	--	22.48%
	% Other Public Basque	0.95%	--	--	11.76%	--	--
	% Central Administration	72.35%	2.29%	25.31%	16.95%	3.66%	27.62%
	% Europe	3.88%	9.78%	6.89%	--	--	20.18%
	% Private	0.82%	8.33%	7.15%	21.76%	4.43%	2.90%
Outputs	Publications	46	47	42	229	41	198
	Conferences	7	32	6	8	22	6
	Thesis	1	9	--	6	4	7
	Patents	2	--	--	1	--	--

* The Centre was created in 2000 and accredited as BERC in 2008.
** Includes a large subsidy from the Central Administration to set a new building; the previsions for 2012 are 2,492,677€
Source: Basque Ministry of Education, Universities, and Research

Table 3.6 Cooperative research centres (CICs)

CICS		marGUNE	tourGUNE	bioGUNE	biomaGUNE	nanoGUNE	microGUNE	energiGUNE
	Year of creation	2002	2006	2002	2002	2006	2004	2007
	Field	Manufacturing	Tourism	Biotechnology applied to health	Biomaterials	Nanoscience	Microscience	Renewable energy
	Full time equivalent researchers	4.9	14	126	74.18	46.63	5	16
	Other personal	1.5	6	18	12.61	9.23	2	5
	Annual Budget	623,560 €	2,126,347€	11,635,746 €	8,612,613 €	9,274,938 €	525,613 €	5,860,246 €
Sources of funding	% Basque Ministry of Education	--	--	2.16%	0.41%	7.00%	--	--
	% Basque Ministry of Industry	78.35%	67.96%	61.75%	75.52%	73.00%	100.00%	--
	% Other Public Basque	20.09%	5.76%	4.04%	0.63%	2.00%	--	99.00%
	% Central Administration	--	4.08%	15.12%	6.56%	6.00%	--	--
	% Europe	--	0.51%	0.62%	6.90%	10.00%	--	--
	% Private	1.56%	21.69%	16.31%	9.98%	2.00%	--	1.00%
Outputs	Publications	14	8	69	28	28	3	7
	Conferences	1	1	45	27	5	1	2
	Thesis	1	0	5	4	1	0	
	Patents	--	0	2	1	0	0	1

Source: Basque Ministry of Education, Universities, and Research

In addition, in order to reinforce the Basque Science System, the Education, Universities and Research department of the Basque Government created Ikerbasque, the Basque Foundation for Science to develop scientific research in the region by attracting senior researchers and creating new research capacities. To do so, Ikerbasque attracts, retains and consolidates researchers on the one hand and creates research centres (BERCs) on the other, working alongside with the scientific community and being committed to excellence. Ikerbasque also works in the promotion of the Basque Country image as a referent in the research international arena.

Box 3.3 Ikerbasque- Basque Foundation for Science

Created in June 2007 by the Basque Government to reinforce the Basque Science System, Ikerbasque (Basque Foundation for Science), attracts, retains, and consolidates researchers to do their research work at centres in the Basque autonomous community and help them to settle here. The BERCs are created through this Foundation that contributes to their development.

Ikerbasque strives to be in 2013 the main science production institution in the Basque Country, in relative terms (for its size); thanks to its capacity to attract and retain scientific talent, and to its contribution to the creation of new basic excellent research centres; it is recognized by the society, the public administration and its Board by its contribution to foster Science in the Basque Country, and by its management and sustainability model. It has been awarded the label "HR Excellence in Research" by the European Commission that identifies institutions and organisations as providers and supporters of a stimulating and favourable working environment. Its resources come from the Basque Government (70%) and Spain and the EU. In 2012, the Basque Government assignment for Ikerbasque has been of more than 10 M€ (6 M€ in 2009). The own Ikerbasque staff to manage the programme of attraction and retention of talent is of 6 people.

During the last five years, Ikerbasque has attracted to the Basque Country 190 researchers from 20 different countries. Of those 99 are working nowadays on permanent positions at Basque Universities and research centres. Those researchers have published more in journals of international visibility more than 1.000 papers and have been implicated in 43 different master programmes. This has translated into an economic return of 40 M€ in the form of funds for R&D obtained by its researchers.

3.3. Framework for promoting research and innovation

The framework for promoting research and innovation in the Basque Country is established at three levels: national, regional and European Union level.

3.3.1 Spanish R&D&I Policies

At national level, the main framework is designed in the National Science and Technology Strategy (ENCYT), a document drawn up with the participation of the Spanish Science and Technology system players. It covers the main principles and general objectives governing both nationwide and regional science and technology policies, for the period 2007-2015. The initiative for this strategy arose as a result of the experience of the different National Plans developed to that date and the results of the INGENIO 2010 (initiative specially launched in 2005 to boost Spanish competitiveness) which has been a significant impulse for science and technology in Spain.

The basic principles governing this Strategy are: to place R&D&i at the service of the general public, of social wellbeing and of sustainable development, fully integrating women into the workplace and guaranteeing equal opportunities; to make R&D&i a factor in the improvement of corporate competitiveness and to acknowledge; and promote R&D as an essential element for the generation of new knowledge.

In relation with national framework conditions, in 2011, the Science, Technology and Innovation Law was approved by the Spanish parliament. Throughout the different stages of its drafting, this law had benefitted from the contributions of the different Autonomous Communities, universities, social players, experts, researchers and citizens, through a variety of

methods made available for this purpose. The law aims to establish a general framework for promoting and coordinating scientific and technical research in order to contribute to sustainable economic development and social welfare by generating and disseminating knowledge and innovation.

The goals it aims to achieve include: the design of an attractive professional career path for researchers; the establishment of a stable, flexible and efficient R&D&i public system; and the development of a knowledge-based society. The new law tries to open the collaboration and mobility of researchers between public and private institutions and to guarantee university positions if a university professor wants a voluntary leave to create a spin-off related with their research.

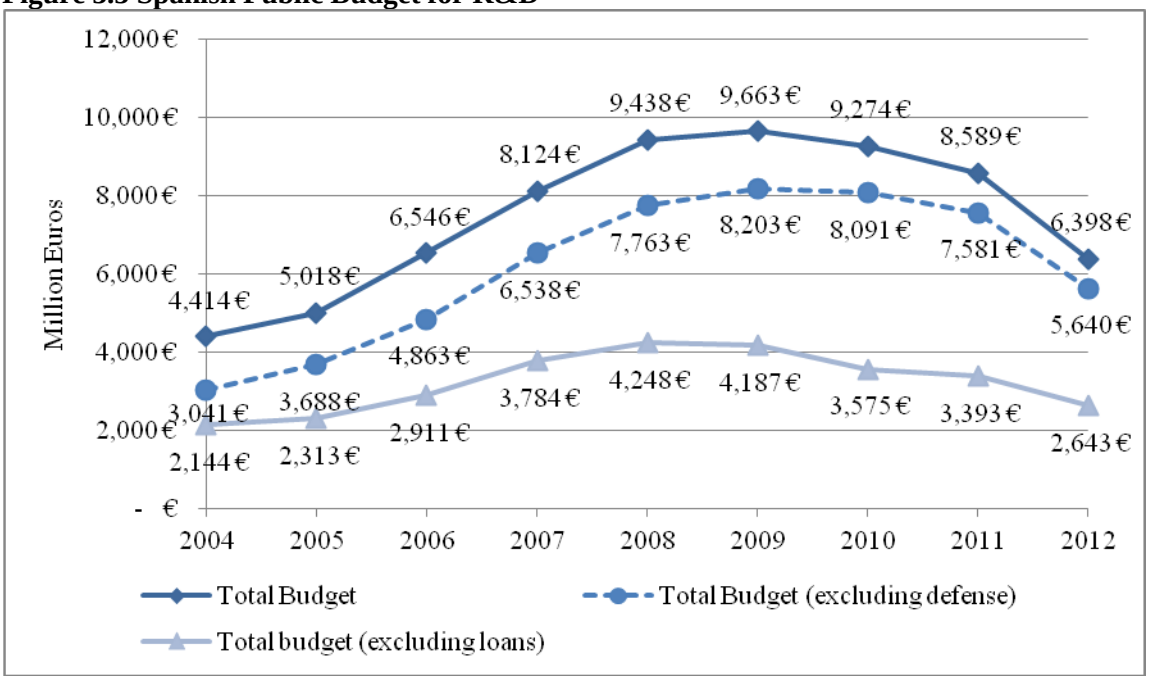
Also in 2011, the State Innovation Strategy (E2I) was presented. This strategy constitutes the framework of action for Government policy on innovation in order to contribute to changing the production model in Spain by promoting and creating structures that facilitate a better use of scientific knowledge and technological development. It is based on diagnosing the current status of innovation in Spain. It determines and quantifies the medium and long-term goals that will improve the innovative capacity of the economy.

Finally, the Strategy University 2015 (EU2015) was presented and approved in 2009. The EU2015 aims to ensure that universities will be better prepared academically, more efficient and internationalised to face the future; that they will pay more attention to inter-university collaboration and to forming strategic clusters with other institutions and agents; that they will enjoy greater social recognition and be more highly valued and adequately funded by the corresponding authorities and by society. It establishes the framework for modernising university studies in Spain in the context of the European Higher Education Area and highlights the changes needed in organization, services and policies to promote a student-centred university teaching and learning model.

The Spanish government is now working on the following National Scientific Research, Development and Technological Innovation Plan (National R&D&i Plan). This Plan is the programming tool of the Spanish Science, Technology and Enterprise system for accomplishing Spain's medium-term technological research, development and innovation policy objectives and priorities, as defined in the Science Law and in the ENCYT. The Plan is structured in annual Work Programmes. Once approved, it functions as a tool for programming short-term science and technology policies, for coordinating the actions of the General State Administration and, lastly, as a platform for presenting and visualizing the integrated activities of the General State Administration and the Autonomous Community Administrations for Science, Technology and Innovation.

In recent years, there has been a considerable cut in the Spanish R&D&i budget. Recently, new budget cuts have been announced, threaten the development of research activity and transference. Since 2009, the cumulative cut amounts to more than one third of the 2009 budget. These cuts may jeopardize the advancement and application of science in Spain.

Figure 3.3 Spanish Public Budget for R&D



Source: COTEC Foundation Annual Report 2012

3.3.2 Basque R&D&I Policies

The Basque society faces a series of challenges that require the design and implementation of different strategies and plans. The Basque Ministry of Education, Universities and Research has responsibility over the design and implementation of part of the region's research policy. The other active departments in R&D&i are the Basque Ministry of Industry and, to a lesser extent in terms of expenditure, the Ministry of Health. In concordance with this shared responsibility, the strategies and plans developed by these Ministries constitute the framework for the research and innovation policies in the Basque Country.

From the Ministry of Education, Universities and Research, the University Plan 2011-2014 responds to the society challenges from the Basque universities capabilities, taking into account its three duties: education, research and knowledge transfer.

Three other plans conform the Basque R&D&I framework: the Science, Technology and Innovation Plan 2015 (mentioned before), the Business Competitiveness Plan 2012-2013 and the Health Plan 2010-2020. The Science, Technology and Innovation Plan 2015 (PCTI 2015) is the instrument to determine the broad lines of science and technology encouragement in Euskadi. It also defines the most appropriate support instruments for science and technology exploitation through innovation. The Business Competitiveness Plan 2012- 2013 is a framework plan that defines the Basque economy competitiveness model and it integrates the main action lines and budget concerning industry boost. The Health Plan 2012- 2020 is the tool that assumes the challenge to address the multiple aspects of health and settles down the health system policies orientation.

Table 3.7 Plans related with the Basque HEIs

PRESIDENCY			
Science, Technology and Innovation Plan 2015			
Ministry of Education, Universities and Research	**Ministry of Industry, Innovation, Commerce and Tourism**	**Ministry of Employment and Social Affairs**	**Ministry of Health and Consumer Affairs**
•University Plan 2011-2014 •Basque Vocational Training Plan 2011-2014	•Business Competitiveness Plan 2010-2013 •Euskadi Energy Strategy 3E-2020	•Basque Employment Strategy 2011-2013	•Basque Health Plan 2010-2012

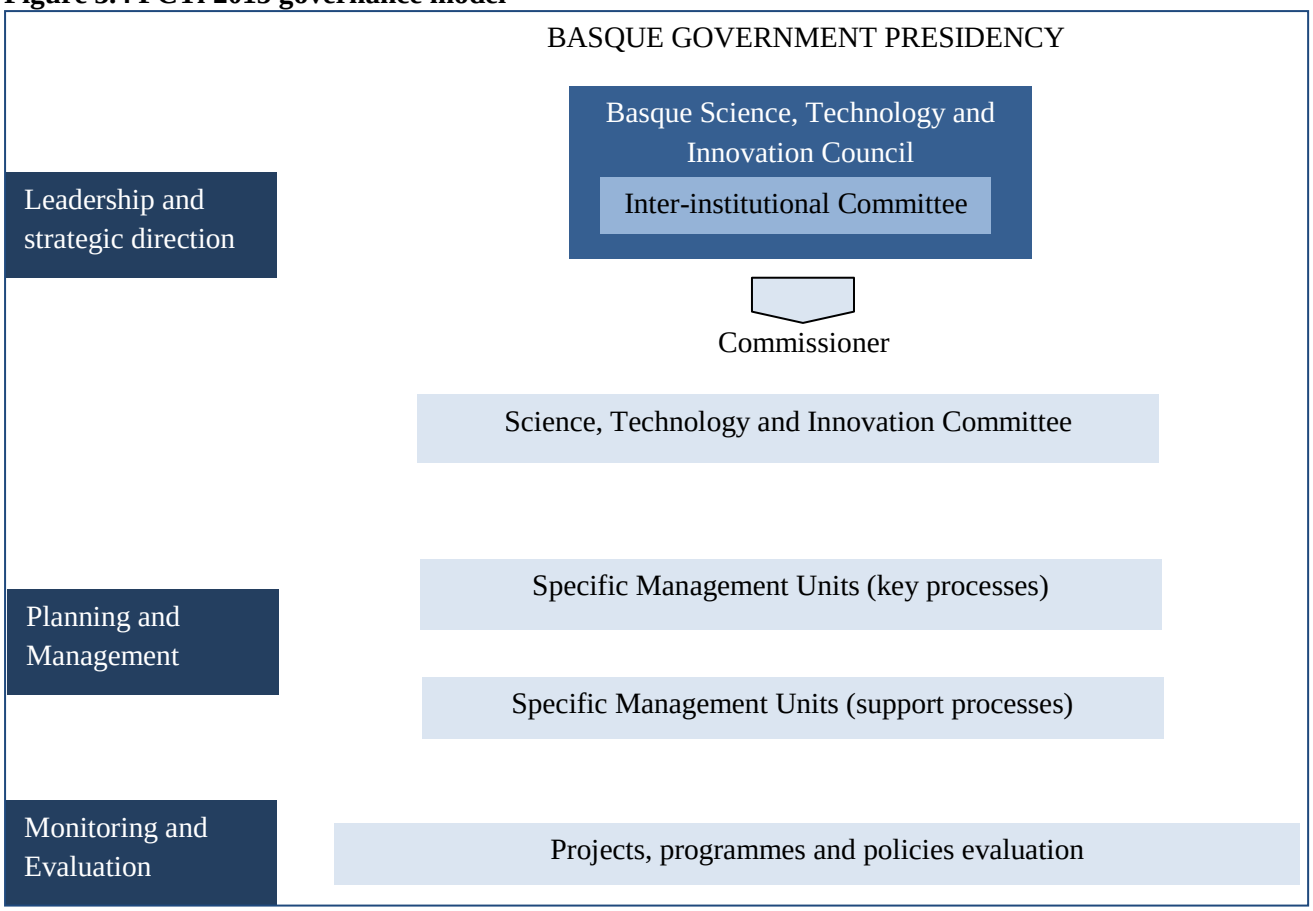
Source: Basque Government

The PCTi 2015 presents a new system of governance for the Basque Science, Technology and Innovation to be implemented in the forthcoming years. This governance model is based on the application of the following criteria: results orientation, reconfiguration of the existing bodies for the system management and reallocation of established functions.

Taking into account the different functions to be implemented in the Basque science, technology and innovation system, three levels of governance have been defined:

- Level 1. *Leadership and strategic direction*. The strategic orientation of policies and initiatives will be formulated at this level.
- Level 2. *Planning and management*. Responsible of the deployment of R&D&i policies and strategic initiatives according to the Level 1 guidelines.
- Level 3. *Monitoring and evaluation*. Responsible for executing a dynamic process of results and impact monitoring in the medium and long term.

Figure 3.4 PCTi 2015 governance model



Source: PCTi 2015

At Level 1, leadership and strategic direction the division of responsibilities is set as following:

- **Basque Science, Technology and Innovation Council**: It is responsible for the strategic orientation of the Science, Technology and Innovation policy and guarantees the inter-institutional coordination through the participation of other agents apart from the institutional ones. Its functions are: determine the whole system strategy; define inter agency strategies, allocate resources and coordinate the strategic aspects of the PCTi 2015. The Committee is chaired by the Lehendakari (Basque President) and will be formed by the ministers of Education and Universities; Industry, Innovation, Commerce and Tourism; Health and Consumer Affairs and Presidency and representatives of the three provincial governments. The committee will also have representatives of relevant stakeholders groups in the scientific, business, technology and social areas.
    - The Council also has an **Inter-institutional Committee** with an operative character, consisting on representatives of the Basque Government departments with activity in R&D&I and the three provincial governments. The mission of this committee will be to guarantee the coordination of the actions in the R&D&I areas for each of the participating institutions
- **Science, Technology and Innovation Committee**: It is responsible f the system governance. It is chaired by the Lehendakari and the representatives of the Ministries with a significant activity in science, technology and innovation.
- **Commissioner**: Person commissioned by the Lehendakari to ensure the PCTi mainstreaming and the continuity of the strategic decision- making and the operational implementation. The Commissioner will report to the Basque Government Presidency General Secretary. The Commissioner will also analysis and monitor international trends, indentify risks as well as control the innovative performance of the Basque economy.

At level 2, the components are:

- **Specific management Units (key processes):** Planning and management will be pursued through three different processes: Science, Technology and Value creation and Social Innovation.

- **Specific Management Units (support processes)**: Support processes will be implemented in fields such as the scientific and technology knowledge exploitation, talent management… To drive these processes properly specific management units will be created: Knowledge exploitation and sale management unit and Talent management unit.

For Level 3, the Commissioner will have a technical secretariat that will help to pursue all these objectives together with the evaluation and monitoring of the PCTi 2015.

The central role of science and technology as key to development of advanced societies links the University Plan 2011-2014 with the Business Competitiveness Plan 2012- 2013. The University Plan, with its contribution to training highly qualified professionals, will generate research capabilities and transfer mechanisms that have to be considered at the Business Competitiveness Plan. For its part, the Business Competitiveness Plan sets up objectives and goals that have to direct the implementation of the University Plan.

The contribution of the University system to the generation of knowledge and transfer process connects with the PCTI 2015. Many of the scientific competences that are explicitly supported through the University Plan (mobility of researchers, groups of excellence, infrastructures) are also included and supported by specific instruments included at the PCTI 2015.

Moreover the PCTI 2015 includes not only the activity of technology transfer pursued by the University System but also the knowledge generation as the embryo of new business ideas and opportunities, a crucial aspect in a context where the barriers between basic and applied research or between science and technology are increasingly blurred. Similarly, the University Plan is closely related with the Health Plan: the generation of scientific and technological capabilities in the educational field, but also in research, requires the coordination of both strategic agendas.

3.3.3 The European Union Programmes

Historically, the Basque region has received the support of the European Union. Despite the incorporation of new countries in the European Union, Euskadi has increased its participation both in the EU regional policy and in the European Framework Programmes.

According to the data provided by the Basque participation at Europe Observatory, the Basque Country has notably increased its participation in the 7th Framework programmed (FP7) compared to the 6th Framework Programme. Specifically, in the period 2007- 2010 Euskadi received more than 190 M€ with 606 Basque agents involved.

The Centre for Industrial Technological Development (CDTI) has made a comparative study among the Spanish Autonomous Communities participation at the FP7, in which is stressed the high participation of Madrid and Catalonia (1.055 and 1.047 participations, respectively), followed by the Basque Country with 406 participations. In addition, four scientists from Ikerbasque have received funds from the European Research Council.

In synthesis, the Basque R&D&i policy is focused on the improvement of the science-industry linkages, enhancing networking, boosting knowledge generation and transference, improving researcher's mobility and prioritizing collaborative projects in areas where Euskadi can develop a competitive advantage. However, there are still weaknesses in relation with the collaborative approaches and the absorptive capacity of small firms.

3.4 Interfaces facilitating knowledge exploitation and exchange

The relation between university and industry is a key aspect for the Basque development. In the past, some structural deficiencies had prevented the university from exercising its interface role in the Basque Country as it was stated in 1998 in the European Commission report on

Universities Technology Transfer and Spin-offs activities. Since then, several mechanisms have been implemented in order to facilitate and improve the number of R&D collaborative projects, the number of patents and licences, and the creation of spin-offs. Although there is still room for improvement, great advances are being made in this area.

3.4.1 University offices for the transfer of research results (OTRI)

On annual basis and in accordance with the current University Plan, the Basque Government and the three Basque universities sign a contract program that frame the actions carried out in the areas of formal and non formal education, research, transference, and equity and social projection.

In support of knowledge transfer the universities' Offices for the Transfer of the Research Results (OTRI) are responsible for the management of contracts and patents and relationships between the university and industry, in particular the promotion and generation of new ideas and the management and development of industrial projects. The three Basque universities have an office of these characteristics.

The OTRI supports activities to facilitate the creation of spin-off companies through the exploitation of the research results in particular offering space for new firms development, economic resources, expert consultancy, support for company start-up and training of entrepreneurs. The promotion of entrepreneurial activity is supported by workshops, conferences, seminars and competitions.

Basque OTRIs are playing an active role in management contracts with the industry fabric, encouraging the patent and licensing process together with the encouragement of spin-offs creation.

The three universities are particularly active in the accomplishment of projects in collaboration with firms. During the last five years, more than 6.400 collaborative projects have been implemented. All universities are involved, but it outstands the strong commitment with the collaborative approach of both the UPV/EHU and the Mondragon University. The development of a research very oriented to the needs of the companies allows MU to have a large number, given its size, of research collaborative programs with different companies of the Basque Country.

Table 3.8 Evolution of projects in collaboration with firms and volume of earnings

		2006	**2007**	**2008**	**2009**	**2010**
UPV/EHU	Number	942	1030	1049	1037	1083
	% with SMEs	n.a.	n.a.	n.a.	n.a.	n.a.
	€	13.24M€	12.88M€	11.98M€	11.38M€	12.56M€
DU	Number	56	29	50	50	44
	% with SMEs	n.a.	n.a.	n.a.	n.a.	n.a.
	€	1.53M€	0.75M€	1.44M€	1.09M€	1.03M€
MU	Number	189	195	220	231	278
	% with SMEs	38%	36%	35%	37%	35%
	€	3.35M€	3.91M€	5.09M€	5.94M€	7.01M€

Source: Basque Ministry of Education, Universities and Science Policy and own universities.

With the last available data, the Basque universities have applied for 222 patents between 2006 and 2010, being the UPV/EHU the most active university in this field and probably due to the wide range of areas in which research is developed in addition to the long experience in the promotion of results transference.

Table 3.9 Patent application over time

	2006	2007	2008	2009	2010	Earnings by patents and or licenses (2009-2011)
UPV/EHU	27	36	47	52	56	82,909.82€
DU	0	0	0	0	0	0
MU	0	0	0	0	4 *	0

Note: in the case of MU the number corresponds to active patents, not applications.
Source: Basque Universities.

The results concerning the creation of spin-offs are more disappointing: only 60 spin-offs were created between 2006 and 2010. This result can be explained by the different difficulties that the entrepreneurship involves in conjunction with the limited incentives or empowerment that university researches received to establish new firms.

Table 3.10 Spin-offs Evolution

		2006	2007	2008	2009	2010
UPV/EHU	Number	5	6	5	7	10
	Average Size	6				
	Survival rate	96%				
DU	Number	0	0	0	2	5
	Average Size	--	--	--	1	4.5
	Survival rate	--	--	--	50%	80%
MU	Number	2	5	4	5	5
	Average Size	2	2	2	3	3
	Survival rate	100%	80%	100%	80%	80%

Source: Basque Universities

However is worth mentioning that the UPV/EHU is the 5th university in Spain in terms of the number of spin-offs created during the period 2006-2010, just behind the Autonomous University of Madrid, the Polytechnic Universities of Catalonia and Madrid, and the University of Granada[14]. In this respect, the UPV/EHU counts with programmes and infrastructures to promote the foundation of innovative spin-offs in its three campuses and directly managed by them, that since 1997 have contribute to the creation of more than 90 new firms: the Programme Entreprenari, in collaboration with the BIC Gipuzkoa Berrilan in the Campus of Gipuzkoa; the Programme for Entrepreneurs Abiatu (Zitek) in collaboration with the Provincial Government of Bizkaia and its BIC, BEAZ, that hosts three business centres in the Campus of Bizkaia; and the more recent Programme Inizia in the Campus of Araba.

The objectives of the three programmes are common: to generate and expand the entrepreneurial culture, to increase knowledge transfer, to serve as a bridge between the university and the economic and entrepreneurial world, and to encourage and promote the generation of ideas that could be transformed in entrepreneurial activities, supporting the management and the development of business plans of new entrepreneurial projects. The budget for these programmes comes from different sources, mainly from the Basque Government (Ministry of Industry) but also from the different Provincial Governments.

In addition to the spin-offs directly created by the universities, Mondragon University set in 1984 SAIOLAN, a Business Innovation Center (Centro de Empresas e Innovación) with the objective of promoting and supporting the generation of new business ideas from the university

[14] Data from IUNE with processed data from the respective OTRI.

or the firms. SAIOLAN is managed by academic staff of Mondragon University and has created 194 new firms since its creation.

The activity done from the OTRIs has to be upgraded; looking for new mechanisms to harmonized and supports the collaboration between the university and the industry. A key to improving is to homogenize its structure and update the data collection to provide a specific assessment regarding, at least, revenues, patents and spin- offs.

With this perspective, the UPV/EHU has been working in the search for new tools that enhance this activity which results in the implementation of two distinct entities: Euskoiker and Univalue. In the line of promoting interactions with firms, there are also worth mentioning the so called University-Industry classrooms (*Aulas de Empresa)*. The University of Deusto has also, through the Deusto Foundation, manages, promotes and provides research services to companies and institutions in order to transfer the knowledge generated through research to society. Mondragon University has developed the Innovation Poles, platforms in which coexist in the same physical space the Mondragon University, RTOs and the companies R&D units in such a way that interactions between all agents is facilitated.

3.4.2. Other interfaces of knowledge exchange

3.4.2.1 UPV/EHU

Euskoiker Foundation

Euskoiker, a non-profit organisation, is a foundation which has as its objective the development and awareness of relations between the UPV/EHU and society. This initiative was founded through the collaboration of the UPV/EHU, the three Regional Governments of Bizkaia, Gipuzkoa and Araba, and the three Chambers of Commerce of Bilbao, Gipuzkoa and Araba.

Its existence dates back to 1979 and over the course of more than thirty years has managed numerous research projects, made strategic contacts and participated in several research presentation forums. Every year, the Foundation presents the Euskoiker Research Awards and manages the Burdinola Awards for the recognition of research activity.

This interface agent exists to facilitate the work of university researchers and their relationship with companies and public institutions. Euskoiker has been the intermediary in all sorts of interactions between university researchers and companies. Currently, the most common projects are: projects and research work; negotiated procedures and tenders; courses and training, and congresses and events.

Univalue

Univalue Valorización S.L has been founded to facilitate the appraisal process of the results obtained and their transfer to market. Univalue was created in 2011 and it is located at the Basque Country. Promoting excellence in research and transfer results is its primary objective.

The office is focused on providing safe, reliable and efficient methods for university research to attain practical application and enter the market; combining leadership with efficient handling of innovation/inventions. This initiative has been constituted by the UPV/EHU together with Cantabria, Castilla-La Mancha, Rioja, Illes Balears, Oviedo, Zaragoza and Navarra public universities.

These Universities are aware of the difficulty in bringing the results of university research into the socioeconomic realm and promoting excellence in research and transfer results is one of their primary objectives

University-Industry Classrooms

The University-Industry Classrooms are company-laboratories within the university, created and funded by companies to promote their R&D&i. They are an effective tool for collaboration between the UPV/EHU and businesses, both in activities related to research, technological

development and innovation, as in all matters relating to training, for students or for training and retraining of company personnel. At the moment there are six of these classrooms:

- Iberdrola classroom located in the School of Engineering of Bilbao that is the result of collaboration with Iberdrola in knowledge areas of mutual interest.
- Robotiker classroom in the School of Engineering of Bilbao that seeks to promote the training of students in the fields of mechanics and Telecommunications.
- Aeronautics Classroom that aims to carry out research and technological development in the fields of aircraft design and computer stands. It arises from the agreement signed between the School of Engineering of Bilbao and the Basque association of aerospace companies Hegan.
- Ormazabal classroom, the result of the collaboration between the School of Engineering of Bilbao and Ormazabal Group, whose mission is the integral formation of students in the various fields of Engineering and Management.
- Eco-design research classroom, born from the collaboration between the public Environmental Management Agency (IHOBE), the Industrial Design Centre DZ (now BAI Innovation Agency) and the School of Engineering of Bilbao.
- Befesa Classroom, created through an agreement signed by the School of Engineering of Bilbao and the business group Befesa, for research in the areas of chemical engineering, environmental technologies, simulation and control process them, mining and metallurgical engineering and fluid mechanics.

3.4.2.2 University of Deusto

Through Deusto Foundation three research units have been promoted to date, Orkestra-Basque Institute of Competitiveness, Deustotech and Deusto Social Innovation, and one entrepreneurship unit, Deusto Entrepreneurship Centre.

Orkestra-Basque Institute of Competitiveness is a centre for analysis and debate on territorial competitiveness. Through research of excellence, specialised instruction programmes and constant interaction with economic agents (local regional, and national authorities, the UE, companies, technology centres, cluster associations, etc.), Orkestra aims to strengthen the competitiveness of the Basque economy and society, both of which are immersed in dynamics that go beyond the regional level, while remaining ever aware of the need to promote sustainable development. The Institute is the node that orchestrates a network of equals: government, business, academic institutions and civil society. It has the support of the Basque Government via the Sociedad para la Promoción y Reconversión Industrial (SPRI) and the Regional Council of Gipuzkoa and also from Euskaltel, S.A., Kutxa and Repsol. It has a staff of over twenty permanent researchers and a budget of 3.5 M€, and it combines top level international research and cooperation with regional authorities on design and assessment of economic and industrial policy.

DeustoTech is a Research Institute created with the mission of conducting basic and applied research in computer science and information technologies, addressing companies' technology transfer and support needs. At the present, nearly 100 researchers work at DeustoTech. Their research is organised in six areas: Energy, Mobility, Internet, Health, Computing and Learning. Since 2005 it has executed over 100 research and innovation projects in cooperation with more than 50 companies and 40 research groups worldwide and an annual budget of almost 5M€.

Deusto Social Innovation is the unit for knowledge transfer and outreach at the University of Deusto in the field of Social Research and Innovation. Its goal is to respond to local and international changes and challenges to society and contribute to the improvement and transformation needed to achieve just and balanced development. Set up in 2011, it brings together the experience and knowledge of nearly a hundred researchers whose specialist area is

social innovation from the perspective of social sciences, economics and technology through interdisciplinary cooperation.

Founded in 2011, *Deusto Entrepreneurship Centre's* mission is to boost entrepreneurship at Deusto. It offers the university community the opportunity to explore ideas and develop entrepreneurial competences. The centre aims to make Deusto a reference on the international innovative entrepreneurship scene. Its main activities consist of an innovation and creativity programme and other initiatives to support entrepreneurs. Five new technology firms, some of which have received international awards, have been created in its business accelerators.

3.4.2.3 Mondragon University

The Campus-Poles of MU are a focus of skilled jobs generation, new firms and reorientation of traditional industries leading to the diversification and revitalization of the economic tissue.

As an example of this philosophy and its effective implementation the following can be mentioned:

- *GARAIA Innovation Pole (Mondragon),*
- *CUT- University and Technology City (Oñate),*
- *GOIERRI Innovation Pole (Ordizia)*
- *BIDASOA campus (Irún)*
- *BASQUE CULINARY CENTER (Miramón Technology Park)*
- *Audiovisual Communication Pole (Aretxabaleta)*
- *GALARRETA Innovation Pole (Hernani) (in development)*

3.4.3 Basque Science, Technology and Innovation Network

As mentioned before, the Basque Science, Technology and Innovation Network (RVCTI) was established on 29 April 1997 to develop a market and client-oriented smart technological infrastructure for complementary and coordinated networking. It aims at providing an integrated, sophisticated and specialized technology offer to the Basque business sector.

The RVCTI with over 100 centres and more than 2,500 research scientists consists of a series of agents that participate directly in the processes of knowledge creation by scientific and technological research. The Network covers practically all organisations and institutional agents (universities, technological centres, cooperative research centres, etc,) that carry out activities related to the creation and spread of information in the Basque Country, in particular those that support the business enterprise processes which later drive forward a large part of the country's economic and social development.

Figure 3.5 Basque Science, Technology and Innovation Network

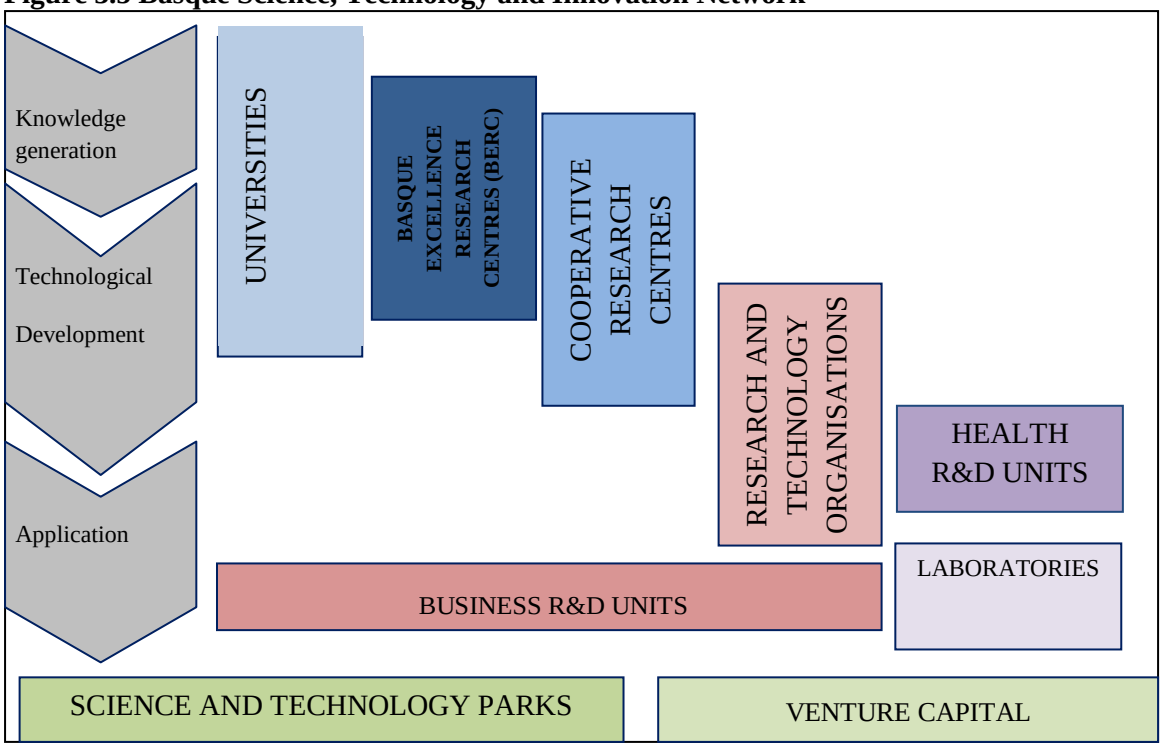


Table 3.11 Economic dependence and public character of the Basque Science, Technology and Innovation Agents

	Ministry of Education, Universities and Research	Ministry of Industry, Innovation, Commerce and Tourism	Ministry of Health and Consumer Affairs	Ministry of Agriculture
Public Character	•UPV/EHU •Science Parks •RTO: ESS Bilbao	•Technology Parks •Venture Capital •RTO: CADEM	Some Health R&D Units	RTO: AZTI and Neiker
Strong economic dependence	•BERC (private foundations or associations) •UPV/EHU •Science Parks •Public RTO: ESS Bilbao	•CIC (private associations) •Technology Parks (all public) •Venture Capital (public) •Public RTO: CADEM	•Public Health R&D Units	Public RTOs: AZTI and Neiker
Some economic dependence	•DU (private) •MU (private)	•Business R&D Units (private) •Private RTO: Tecnalia and Group IK4	•Private Health R&D Units •Laboratories (all private)	

3.4.4 Technology and Science Parks

The Basque Country, pioneer in Spain in the creation of Technology Parks, now has four of them in a coordinated Network that is one of the most consolidated networks in Europe with a high growth potential: Araba Technology Park, Bizkaia Technology Park, San Sebastian Technology Park and the Garaia Innovation Pole. Their design is based on the universally accepted concept of the definition of a Technology Park, which combines the location of

businesses par excellence, universities and Research and Technology Transfer Centres with sustainable high quality environments.

The four Technology Parks that form part of the Network aim to set up technologically advanced businesses, provide quality spaces, promote the exchange of technology and knowledge, promote the creation and development of new technology-based enterprises, foster cooperation between companies, technology centres and universities, support innovative and technology-based business development, and boost the internationalization of companies.

The UPV/EHU is working on the development of a Science Parks located at the Leioa Campus (Bizkaia). The Bizkaia UPV/EHU Science Technology Park will help to position the UPV/EHU among the most important universities in knowledge transfer work, directing its activity at economic development, but also at the promotion of the social and cultural aspects that an academic institution ought to attend. In fact, this new Science Park converges in the multi-campus project of the Bizkaia Technology Park and will have a multiplying effect that will allow disseminating innovation and technological development in the entire Basque Country.

The new campus of Bizkaia UPV/EHU STP will hold technology platforms with multidisciplinary mixed university-business groups from different scientific areas. One of the buildings will be a Biophysics centre of excellence. In the second, the large scientific infrastructure of the Bilbao ESS Spallation Centre will be developed. The platforms will be an area for the exchange of knowledge between the University‘s scientific disciplines, favouring the development of innovative projects and contributing to the research of Basque businesses and the development of the University‘s potential in this way. Besides the technology platforms, the park will have 14 Buildings for R&D&i (48,000 sq. metres) that will be used for housing science-technology based businesses and to the R&D&i departments of consolidated businesses. A Hotel-Hall of Residence for students and researchers, a meeting and leisure area for restaurants, shops, events and other services will complete the Park social services.

The creation of these Science Park has among its main objectives generating a space for excellence and innovation that encourages university-business relations and the creation of new technology-based companies and highly qualified jobs, making the most of the scientific and technological capacities of a university campus open to the social demands of its environment

3.4.5 Euskampus Campus of International excellence (CEI Euskampus)

In the frame of the Spanish Campus of International Excellence Program, the three universities of the Basque system presented in 2010 three independent projects: the “Euskampus” of the UPV/EHU, the “Aristos Campus Mundus 2015” of the University of Deusto, and “Mondragon: the university of transfer knowledge” of Mondragon University. The three were selected for the last stage of the process of qualification. The project of the UPV/EHU is centred in collaborative knowledge, technology, and innovation (see Box). The MU project is oriented towards the transfer of knowledge and the interactions with the existing Basque business infrastructure while the project of DU was based in social innovation. Euskampus was awarded the title of CEI in the 2010 call while Aristos Campus Mundus 2015 (joint with the University Ramon Llull and the Pontifical University of Comillas) won the award of CEIR in the 2011 call (see Chapter 5).

The award of CEI to the Euskampus project has important implications from the point of view of prestige and social projection. It is a strategic project that would help to build the capacities necessary to transform the Basque economy in a knowledge economy. The confirmed quality of the Aristos Campus Mundus and “Mondragon: the university of transfer knowledge” also contribute to this end.

Box 3.3 Euskampus Campus of International Excellence (CEI Euskampus)

The Euskampus Campus of International Excellence (CEI Euskampus) was created as an alliance led by: the University of the Basque Country (UPV/EHU), the Donostia International Physics Centre (DIPC) Foundation and TECNALIA Corporación Tecnológica. The project obtained the accreditation of Campus of International Excellence by the Spanish Ministry of Education in October of 2010.

This project aims to place the Basque Country in a position of global leadership as regards as education, research activities and its capacity for innovation and knowledge transfer. At the same time, the CEI Euskampus is a project committed to its surroundings, seeking to link the UPV/EHU to companies, to the different social agents and the cities of the Basque Country, thus carrying out a prominent role in the process of social and economic transformation and regional development.

In addition to the promoters of the alliance, the CEI Euskampus has also been joined by public administrations and a large number of organisations of the Basque Network of Science, Technology and Innovation.

The CEI Euskampus has been conceived with a long-term commitment and with the aim of becoming a key element for the achievement and development of relevant social and economic values for the Basque Country, showing itself to be an internationally competitive alliance that brings dynamism to the research, the innovation and the economy of its surroundings. Such an alliance requires real governance (through Euskampus Fundazioa) that warranties efficiency and transparency in collaboration with the main agents in the Basque Network of Science, Technology and Innovation and with entities of international relevance (in particular with the Pôle de recherche et d'enseignement supérieur de la Université de Bordeaux). Euskampus Fundazioa's mission is to design, coordinate and execute actions that reinforce and speed up the process of modernisation of the University through the project Euskampus.

These actions will concentrate in:

- The promotion of **collaborative research and innovation** among the institutions that participate in Euskampus and with other international institutions in the priority areas set by the project (initially experimental sciences and technology). The design and implementation of a strategy for transfer of knowledge, valorisation, and knowledge promotion.
- **Communication, marketing and internationalisation**, with special interest in the launch and consolidation of the Trans-boundary Campus with Bordeaux University.
- **Attraction of talent**
- **Teaching,** promoting the links between the institutions that are part of Euskampus and the UPV/EHU School of Master and Doctorate and the rest of the offer of postgraduate and life-long learning studies.

Funding of the project (2010-2012): 21.03M € (15,0M€ in the form of loans from the Spanish Ministry of Education and the Spanish Ministry of Innovation, 1.03M€ as a subsidy from the Spanish Ministry of Education, and 5M€ from the Innovation Fund from the Basque Government. 12.55M€ have been assigned to the construction and equipment of the Scientific Park of the UPV/EHU.

Human resources: 5 in Euskampus Fundazioa; there is a forecast of hiring 7 additional technicians at the most.

3.5 Conclusions

The Basque University System, composed by three universities, is complemented by a wide range of scientific actors, such as the Basque Excellence Research Centres or the Cooperative Research Centre, what constitutes a strong environment for high quality research and international competitiveness together with a feasible framework for knowledge transference.

The system counts with an array of mechanisms of different nature and scope for transference, although in some aspects results are far from optimal.

It is worth mentioning the Basque Government and other public and private institutions commitment to make significant improvements concerning science in Euskadi, plus the growing effort in improving collaboration between all Basque Innovation System actors.

Strengths	Weaknesses
•Public- private Collaboration •Strongly networked society with regional identity •University System with the highest number of doctoral programs with an excellence mention in Spain •Scientific Excellence Research groups •Powerful institutional support system •Infrastructure of research and technology centres and parks •Highly positive trend in R&D intensity •Educated labour force •High level of scientific research in some specific areas •Increasing involvement in knowledge transfer •Existence of developed interface infrastructures and networks •Successful programmes for attracting scientists	•Limited scientific capability •Universities poorly connected to each other. •Lack of technology transfer and diffusion to many SMEs •Financing and management of scientific and research infrastructures •Mechanisms for inter- departmental planning and coordination of science policy •Low percentage of GDP invested in universities R&D&i •Few incentives for researchers to be engaged in knowledge transfer activities •Lack of technical staff to support research •Insufficient cooperation and networking among technology transfer intermediaries •Lack of homogenous statistical data to analyse knowledge transfer
Opportunities	Threats
•University 2015 Strategy. International Excellence Campus: Euskampus •Strengthening public and private research system •Align research with the needs of the Basque competitive sectors. •Increasing EU funds for research •Growing importance of partnerships in R&D projects •Capitalise on new BERCs •Better positioned to exit crisis than other Spanish regions •Greater involvement of actors not at the RVCTI	•Path dependency of public policy in STI •Growing competition to attract Spanish and EU funding sources for research and innovation •Increasing financial uncertainty of the Support of the Spanish government in R&D and innovation policy •Growing competition to attract talent •Brain drain due to unemployment •Economic sustainability of the RVCTI

CHAPTER 4 CONTRIBUTION OF TEACHING AND LEARNING TO LABOUR MARKET AND SKILLS

4.1 Localising the learning process

In general terms, the Higher Education Institutions are oriented towards the characteristics and needs of the region: the transference of qualified people, as well as knowledge and technology, to its territory has been at the heart of the Basque Higher Education System. This regional dimension is combined with a higher degree of internationalisation, present in the strategic plans of the three Basque universities, or in the University Plan 2011-2014 and in the III Vocational Training Plan 2011-2013.

During the academic year 2009-2010 there were 61,995 students enrolled in any type of university courses[15], 16,579 students enrolled in higher vocational training courses, and 1059 enrolled in other specialised higher education[16]. The centres of higher education (including different campuses) and the number of students are distributed in the three Basque provinces proportionally to its population, showing the intrinsic link between higher education and the regional needs. More than fifty per cent of the infrastructures and students are located in Bizkaia, and more specifically in Bilbao.

Table 4.1 Territorial distribution of centres of higher education, students and population, academic year 2009-2010

		Araba	Bizkaia	Gipuzkoa	Basque Country
Centres for Higher Vocational Training	Number	15	60	45	120
	%	12.5%	50.0%	37.5%	
Centres for University Education*	Number	10	30	19	59
	%	16.9%	50.8%	32.2%	
Other centres of Higher Education**	Number	2	4	3	9
	%	22%	44%	33%	
Students in Higher Vocational Education	Number	2,506	7,964	6,109	16,579
	%	15.1%	48.0%	36.8%	
Students in University Education	Number	8,669	34,940	18,386	61,995
	%	14.0%	56.4%	29.7%	
Students in other Higher Education	Number	291	233	535	1,059
	%	27.5%	22.0%	50.5%	
Population	Number	317,016	1,151,704	700,318	2,169,038
	%	14.6%	53.1%	32.3%	

Notes: *All branches/campuses/faculties/schools are included not only for the three Basque universities but also for other universities with some presence in the Basque Country.
* *Other higher education refers to specialized higher education: in the Basque Country there are centres for Plastic Arts and Design, music, and sports higher education
Source: EUSTAT and Spanish Ministry of Education, Culture, and Sports.

The universities, with the exception of Mondragon, do not provide higher VET courses. The still in project Law of life-long learning for the Basque Country that proposes an integrated conception of the VET in the frame of life-long learning (see section 4.3) recognises the need of a higher participation and coordination with the universities in this respect.

[15] This figure includes official and non official courses, undergraduate and graduate courses, and courses provided by universities in the Basque University System and outside this system.
[16] Other higher education refers to specialized higher education: in the Basque Country there are centres for Plastic Arts and Design, music, and sports higher education.

The Basque system serves the regional population in undergraduate studies: the Basque population aged 17-20, with 71,106 youngsters, constituted in 2009-2010 a 3.8% of the total Spanish figure for this age group; the offer of vacancies to study official undergraduate courses in the Basque University System accounted for 4.2% of the Spanish offer, while de demand accounted for 5.2% of the total Spanish places; the number of new enrolments in 2009-2010 in Basque universities undergraduate programs was 9,458, 4% of the Spanish new enrolments[17]. More than 85% of these new enrolments come from the Basque region while among the rest most new enrolments have its origin in the nearby regions (Report CYD Foundation, 2010, and Chapter 2). Furthermore, this regional focus of the undergraduate studies is confirmed by the small number of foreign students in the undergraduate programs: only 1.5% of all enrolled students in official Basque undergraduate programs were of foreign origin (3.2% in Spain). Moreover, Basque universities have largely contributed to the normalisation in the usage of the Basque language (*Euskera*): in the 90's a reduced amount of courses were taught in Basque (e.g. 32% in the UPV/EHU in 1988-1989); in 2009-2010, 25% of the ECTS offered in the University of Deusto, 75,5% of those in the UPV/EHU and 64% of those in Mondragon University, were taught in Euskera, accommodating the real use of the language in the Basque society.

The panorama for postgraduate studies is quite different, and their focus seems more international: 26.2% of all students enrolled on an official master degree and 30.4% of those that obtained this type of degree came in 2009-2010 from foreign universities, being these figures above the Spanish ones (18.4% and 23% respectively).

The higher vocational studies are also intrinsically linked to a regional dimension, through a progressive decentralization process that has been taking place during the last decades. The elaboration of a general plan, evaluation, advising, and coordination of the VET studies is the responsibility of the Basque Council for Vocational Education and Training (*Consejo Vasco de Formación Profesional*). This Council is composed of a president (the Basque Minister of Education, Universities, and Research), a vice-president (the vice-minister of Employment and Social Affairs), a Secretary (from the Ministry of Education, Universities, and Research), and 25 counsellors, 7 representing different government departments and provincial authorities, 7 representing the Basque Business Confederation (CONFEBASK[18]), 7 representing the main trade unions, and 4 representing the public and private VET centres. The composition of this Council shows the importance that the regional agents, public, business and workers, have in the VET programmes.

The III Vocational Training Plan (2011-2013) establishes the strategic priorities for the Basque Country with respect to vocational training (including adult education), which can be framed into the four strategic objectives included in the "Education and Training 2020" strategy for Europe, namely:

- making lifelong learning and mobility a reality
- improving the quality and efficiency of education and training
- promoting equity, social cohesion and active citizenship
- enhancing creativity and innovation, including entrepreneurship, at all levels of education and training

In this respect, the completion of the Catalogue of Vocational Qualifications or the promotion of an integral vocational training system, that includes information, counselling and orientation,

[17] Figures from *"Estudio de Oferta, Demanda y Matrícula de nuevo ingreso en las Universidades Públicas y Privadas. Curso 2009-10"* elaborated by the Spanish Ministry of Education, Culture, and Sports.

[18] Confebask is an organisation founded in March 1983 which represents and defends the common interests of Basque businesses. To date 13,000 private businesses have opted to join the alliance, a member of the Spanish Confederation of Business Organisations (CEOE).

not only for students but for the whole population and harmonised with the Basque Employment Service (LANBIDE) are Basque priority lines that ensure the adaptation of the vocational training education to the needs of the Basque economy and society.

4.2 Student recruitment and regional employment

In general terms, student recruitment in the Basque higher education system does not have an explicit regional dimension.

To enrol in higher education, students are required to successfully complete higher secondary education non compulsory (*Bachiller*). To access university degrees additionally they are required to pass a general entrance examination. A weighted mark is calculated with the average marks in higher secondary school and the mark in this examination. Different degrees require different marks to enrol. For some degrees, students that have previously completed a higher non-university degree (higher VET) of a related field do not have to take the general entrance examination. There are also special access conditions for students older than 25, older of 45 or with proven professional experience in the area of the studies. A percentage of admission in all courses must be reserved for students older than 25 (at least 2%), students older than 45 or older than 40 with proven professional experience (between 1 and 3%), outstanding sportspersons (3%) or holding other degrees (1 to 3%). Also 5% of all admissions have to be reserved for students with disabilities.

In practice, the access of new enrolled in undergraduate courses tends to be mainly through the entrance examination exam, as in the rest of Spain. It is worth mentioning that both in the UPV/EHU and in Mondragon University access through the possession of a Higher VET degree (*Técnico Superior)* is also a common way of access. In the University of Deusto, this way of access is less common while other types of access (mainly holding previous degrees) accounts for almost a quarter of the new entrants type of access.

Table 4.2 Different types of access for new undergraduate enrolments in the Basque University System, as percentage.

		2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
UPV/EHU	% Entrance examination	73.1%	72.9%	74.1%	78.1%	75.7%
	% Higher VET	9.0%	8.7%	9.2%	10.9%	13.6%
	% Older than 25	1.7%	1.6%	1.4%	1.6%	1.2%
	% Other	16.2%	16.8%	15.3%	9.4%	9.5%
DU	% Entrance examination	72.1%	77.4%	74.4%	73.0%	74.9%
	% Higher VET	1.5%	1.5%	1.3%	1.4%	1.1%
	% Older than 25	0.4%	0.2%	0.7%	0.6%	0.2%
	% Other	25.9%	21.0%	23.6%	25.1%	23.8%
MU	% Entrance examination	89.7%	88.8%	90.9%	83.1%	78.0%
	% Higher VET	9.6%	10.5%	8.4%	15.2%	11.7%
	% Older than 25	0.2%	0.3%	0.3%	0.2%	0.2%
	% Other	0.6%	0.4%	0.5%	1.6%	10.1%
Public Spanish Univ.	% Entrance examination	77.9%	n.a.	78.3%	n.a.	n.a.
	% Higher VET	8.7%	n.a.	9.9%	n.a.	n.a.
	% Other	13.4%	n.a.	11.8%	n.a.	n.a.
Private Spanish Univ.	% Entrance examination	n.a.	n.a.	73.3%	n.a.	n.a.
	% Higher VET	n.a.	n.a.	9.2%	n.a.	n.a.
	% Other	n.a.	n.a.	17.5%	n.a.	n.a.

Note: Spanish universities do not include distance learning ones.
Source: Basque universities and CRUE report "La Universidad española en cifras", several years.

The access to higher vocational training might require also an entrance examination for those that do not hold the required title, with special consideration for students older than 25, with proven experience or that have previously complete studies related to the course (as an intermediate vocational training degree).

Overall the Basque education system is providing the Basque society with highly qualified labour. The early school leaving rate[19] in 2010 was 12.6%, less than halve the Spanish rate (the lowest of all Spanish regions) and below the European average rates. The percentage of the population 30-34 with tertiary education is in the Basque Country of 60%, well above the Spanish and European rates, and also above the European target for 2020.

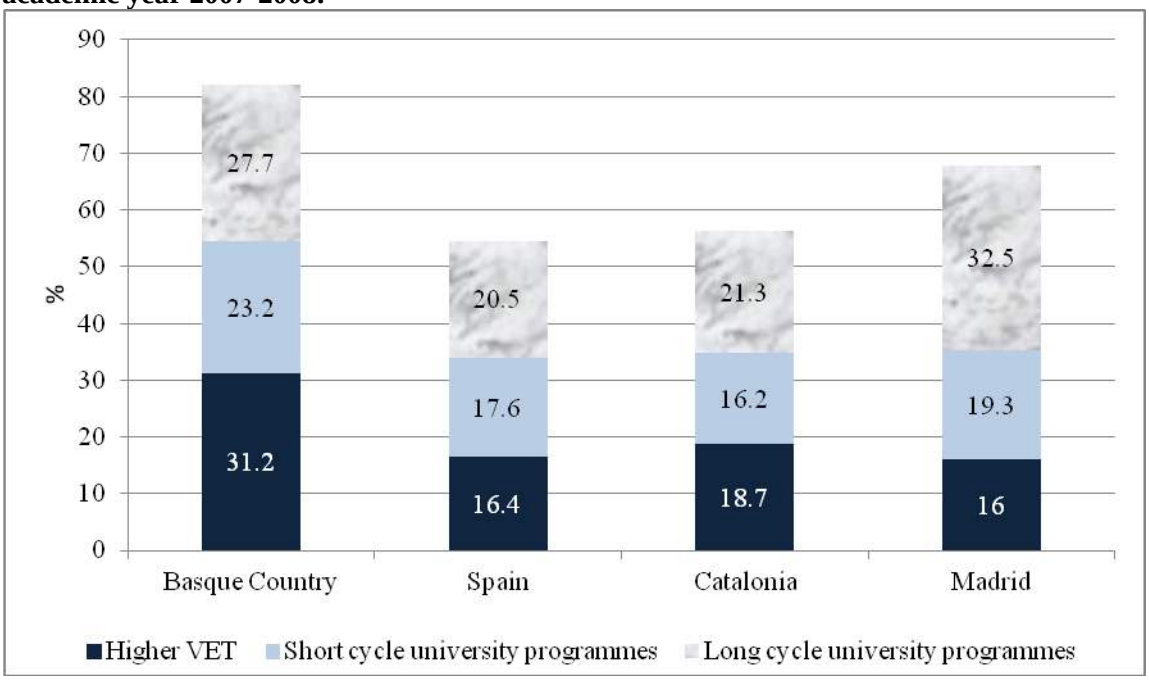
Table 4.3. Europe 2020 indicators related to education: comparison

	% of the population 30-34 with tertiary education	Early school leaving rate
EU27	33.6%	14.1%
EA17	33.3%	15.5%
Spain	40.6%	28.4%
Basque Country	60.0%	12.6%
European Target 2020	**At least 40%**	**Below 10%**

Note: Year 2010
Source: EUROSTAT and Spanish Ministry of Education, Culture, and Sports.

The gross graduation rates[20] in higher education are in the Basque Country well above the average for Spain. The gross graduation rate in 2007-2008 (the last year with available data) in higher VET programmes is 31.2%, the highest in Spain.

Figure 4.1. Gross graduation rates in the Basque Country and selected Spanish regions, academic year 2007-2008.



Source: Spanish Ministry of Education, Culture, and Sports

[19] Percentage of the population 18-24 that has not finished post-compulsory secondary education and that is not following any study.

[20] Gross graduation rate: ratio between the number of graduated students and the total population corresponding to the theoretical age of graduation; that is, for higher VET programmes the percentage of the 20 years old that obtained a higher VET degree, for short cycle university programmes the percentage of 21 years old that obtained a short cycle university degree, and for long cycle university programmes the percentage of 23 years old that obtained a long cycle university degree.

Finally, the number of graduates in Science and Technology per thousand population aged 20-29 is also above the same figure for Europe and Spain, both for males and females. The differences with Spain as a whole are more evident in the case of non-university tertiary degrees, where the number of graduates in the Basque Country more than doubles the Spanish ones. Science and Technology graduates are more common among males than among females, though the gender differences are larger in vocational training studies.

Table 4.4. Graduates (ISCED 5-6) in mathematics, science and technology per 1,000 of population aged 20-29, since 1993

	Total	Males	Females
All Tertiary Degrees			
Basque Country	24.3	34.2	14.1
Spain	12.5	17.8	7.8
EU27	14.3	19.2	9.4
Non University Degrees			
Basque Country	10.8	17.5	3.8
Spain	3.8	6.3	1.2
University Degrees			
Basque Country	13.5	16.7	10.3
Spain	8.7	10.7	6.6

Note: Year 2010
Source: EUROSTAT and Spanish Ministry of Education, Culture, and Sports.

The courses students follow are well adjusted to the productive structure in the Basque Country, specially the higher vocational training courses. All VET courses include a compulsory period of formation in firms (*Formación en el centro de* trabajo) of 400-600 hours of duration. During the course 2010-2011 6,220 firms collaborated in this type of formation. Additionally, in many instances there is a close collaboration between the Vocational Training Centres and the regional firms, to develop areas and courses that respond to the needs of the local business network (e.g. the project Maiatz of cold stamping that was developed by the centre IEFPS Miguel Altuna and a group of local firms of the region due to the needs of qualified labour supply in this area for those local firms). In this process they count with the support of Tknika, the Basque Country Centre of Innovation of Vocational Training.

Box 4.1. Tknika

Tknika is a centre promoted by the Basque Department of Education, Universities & Research, under the direct auspices of the Sub-Department of Vocational Training & Lifelong Learning.

The goal of Tknika is to rise to the challenge presented by new developments in technology. Tknika works to update and adapt teaching and learning methods to meet these challenges so that Basque businesses can have the best possible professionals in an increasingly competitive global environment.

Tknika is the innovation tool for the Basque Vocational Training System. Under TknikaINNOVA**,** the Centre's innovation management model, Tknika incorporates into its activities companies, technology centres, research centres, universities and other institutions that can add value to the system – all based on the dynamic of open innovation**.**

Its mission is to make innovation the backbone of Basque Vocational Training, to move forward in new learning environments and processes, and to bridge the gap from the time an idea or new technology is conceived to the time it can be used productively by society. Tknika fulfils this mission through technology monitoring, and the development, implementation and transfer of innovative products and services in the areas of Management, Training, Technology and ICT & e-Learning to Vocational Training centres, and in turn to the business sector. Tknika dynamic is open to cooperation and forging alliances with private enterprise, research

departments, universities and technology centres to encourage the development of networks, teamwork and creativity.

The prevalence of higher vocational training in the Basque Country is well above its prevalence in the rest of Spain: the enrolment rates are 10 percentage points above[21]. Moreover, for the last academic year available, 2010-2011, 6.7% of all Spanish students enrolled in higher vocational training did so in the Basque Country (compared with 3.7% of all university students). After a period of decreasing number of students attending higher vocational training courses (mainly due to the demographic change), since 2007 and due to the economic crisis, the tendency has reverted. Mechanical and manufacturing, electricity and electronics, ICT or installation and maintenance were higher vocational training courses that accounted for more than one third of all the enrolments in the academic year 2010-2011 (see Appendix IV for a revision of the offer of courses by field and by province, as well as by the language in which they are offered). However, the relative importance of these courses, more associated with traditional manufacturing, has tended to go down in the last five years. At the same time, courses associated to services (administration, socio-cultural services, health) have gained relative importance during the same period.

Table 4.5. Higher vocational training students enrolled in the Basque Country by field

	2010/2011		2005/2006		%Change
	Students	%	Students	%	Students
Administration and management	2,202	12.7%	2,023	12.4%	8.8%
Socio-Cultural Services	2,187	12.6%	1,338	8.2%	63.5%
Electricity and electronics	2,131	12.2%	2,116	12.9%	0.7%
Mechanical Manufacturing	1,724	9.9%	1,976	12.1%	-12.8%
ICT	1,258	7.2%	1,807	11.1%	-30.4%
Health	1,243	7.1%	1,091	6.7%	13.9%
Installation and Maintenance	1,213	7.0%	1,032	6.3%	17.5%
Commerce and marketing	889	5.1%	837	5.1%	6.2%
Building and Civil Works	673	3.9%	672	4.1%	0.1%
Physical and Sports Activities	670	3.9%	434	2.7%	54.4%
Hostelry and Tourism	639	3.7%	680	4.2%	-6.0%
Transportation and Vehicle maintenance	508	2.9%	420	2.6%	21.0%
Chemistry	493	2.8%	643	3.9%	-23.3%
Communication, Sound and Image	401	2.3%	344	2.1%	16.6%
Graphic art	295	1.7%	319	2.0%	-7.5%
Personal Image	225	1.3%	195	1.2%	15.4%
Maritime-fishery	201	1.2%	144	0.9%	39.6%
Energy and water	163	0.9%	---	---	---
Agricultural	159	0.9%	141	0.9%	12.8%
Textiles, dressmaking and leather	63	0.4%	71	0.4%	-11.3%
Timber and furniture and cork	48	0.3%	43	0.3%	11.6%
Food Industry	16	0.1%	19	0.1%	-15.8%
Total	**17,401**		**16,345**		**6.5%**

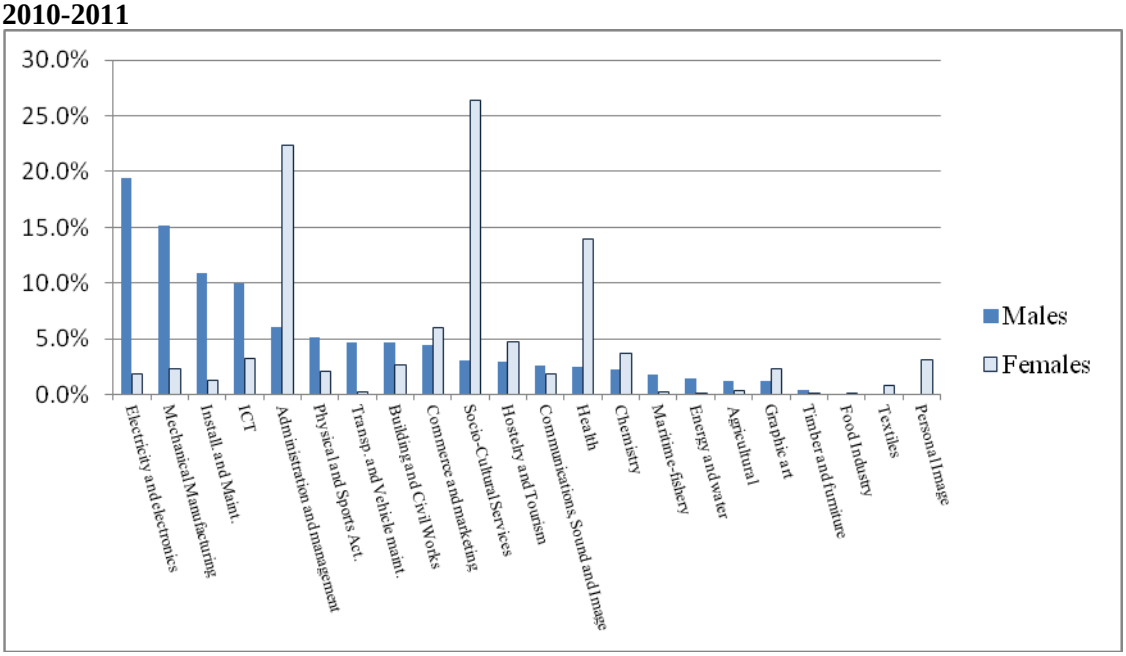
Source: EUSTAT

The changes in enrolment across activities are closely related to gender differences in the courses selected, more towards traditional industry occupation for males and more towards services for females. In any case, more men (10,328 in 2010) than women (7,073 in 2010) enrol

[21] See the report from the Basque Economic and Social Council, "La adecuación del sistema educativo a las necesidades de la actividad socioeconómica de la CAPV" (2011).

in higher vocational training courses. The gender difference in higher than in Spain where around 50% of the higher vocational students were women in 2009-2010.

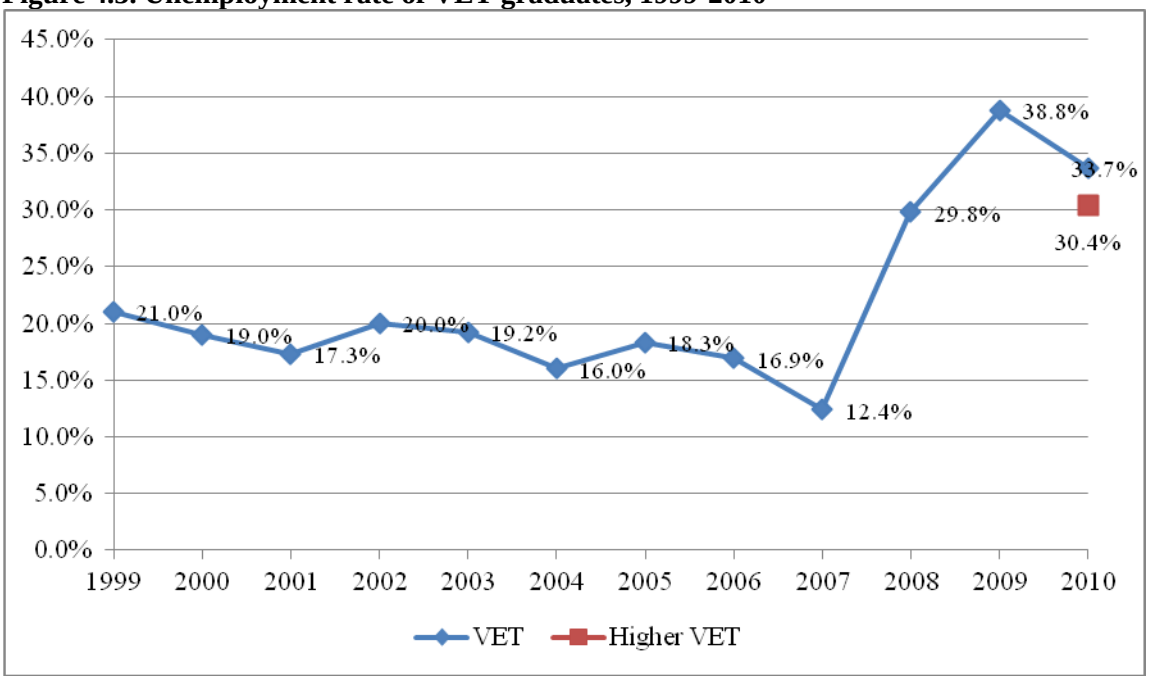
Figure 4.2. Percentage of students in higher vocational training by family and sex, year 2010-2011



Source*:* EUSTAT

The labour market insertion of VET graduates has been quite high in recent years although since 2008, the students have suffered a strong deterioration in their possibilities of incorporation to the labour market. The Basque Employment Service (LANBIDE) elaborates every year a study of the labour market insertion on graduates from VET programmes. The study is based on interviews made one year after graduation. For the promotion of 2007 of VET graduates (both from medium and higher VET courses) the unemployment rate was of 12.4%. This figure has almost triple for the promotion of 2010 (although it is a bit lower for graduates with higher VET titles). The activity rate for more recent promotions has also tended to go down being of 64% on average for higher VET graduates for the 2010 promotion (and the same for graduates in medium VET courses). The vast majority of graduates that do not participate in the labour market (around 98%) are studding. Both the activity rate and the occupation and unemployment rates vary across fields: e.g. the promotion of 2010 graduated in higher Graphic Art courses show an activity rate of 76% while the activity rate for Physical and Sports Activities is of 46%; the unemployment rate oscillates from 18.4% in Personal Image to 45% in Textile (see detailed data in the Appendix IV).

Figure 4.3. Unemployment rate of VET graduates, 1999-2010



Note: Data are based on interviews made 9 to 12 months after obtaining the title (e.g. 2010 data corresponds to the employment situation of VET graduates in the second quarter of 2011).
Source: LANBIDE.

The adjustment of university studies to the productive structure of the Basque Country, although less obvious, can also be seen in a higher percentage of students that choose to enrol and graduate in technical studies (architecture and engineering) with respect to the Spanish percentages (see Appendix I and Appendix II that provide the number of degrees and the enrolments by field at the different universities). It has been a progressive change towards this type of studies that has contributed to approach the supply with the demand of qualifications by the market.

Table 4.6. Enrolment and graduation, by field (year 2009-2010)

		Social and Law Sciences	Technical Studies	Humanities	Health	Experimental Sciences	Total
Students enrolled	Spain	706,245	334,067	127,927	151,554	84,322	1,404,115
	Basque Country	26,355	15,781	3,997	3,932	2,707	52,772
%	Spain	50.3%	23.8%	9.1%	10.8%	6.0%	100.0%
	Basque Country	49.9%	29.9%	7.6%	7.5%	5.1%	100.0%
Students graduated	Spain	100,085	42,190	13,865	23,149	12,020	191,309
	Basque Country	4,990	2,965	652	672	459	9,738
%	Spain	52.3%	22.1%	7.2%	12.1%	6.3%	100.0%
	Basque Country	51.2%	30.4%	6.7%	6.9%	4.7%	100.0%

Source: Ministry of Education, Culture, and Sports.

The Basque Country, in general terms, has a labour market that works better than the Spanish one, in spite of having the same regulatory framework. The unemployment rate was similar in the Basque Country than in the rest of Spain in 2001, but since them has departed: after a period of reductions in unemployment until 2007, the increase experience since the crisis has been much lower than in the rest of Spain.

Table 4.7. Unemployment rates by educational level

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Basque Country										
Total	8.4%	8.3%	8.1%	8.3%	6.2%	5.8%	5.3%	5.5%	9.6%	9.3%
Primary Educ.	10.0%	8.9%	8.9%	9.8%	8.0%	7.4%	6.4%	7.3%	15.1%	14.0%
Secondary Educ.	8.4%	8.9%	7.3%	8.0%	5.9%	5.1%	6.2%	6.8%	9.4%	9.9%
Tertiary Educ	6.9%	7.3%	7.7%	7.2%	5.2%	5.0%	4.1%	3.7%	6.4%	6.5%
Spain										
Total	8.8%	9.7%	9.8%	9.6%	7.8%	7.3%	7.1%	9.8%	16.0%	18.1%
Primary Educ.	10.3%	11.1%	11.2%	11.3%	9.3%	9.0%	9.0%	13.2%	21.9%	24.7%
Secondary Educ.	8.1%	9.4%	9.7%	9.2%	7.3%	6.8%	6.8%	9.3%	15.3%	17.4%
Tertiary Educ	6.6%	7.5%	7.4%	7.3%	6.1%	5.5%	4.8%	5.8%	9.0%	10.5%

Source: EUROSTAT.

The three Basque Universities have offices that provide career guidance and information for students who are looking for work or know more about educational and professional opportunities. At Mondragon University, degrees include a period of work at some firm, providing a first work experience to its students. The UPV/EHU makes this job experiences voluntary and also counts with special programs to place students in foreign companies, some of them general to all Spanish students to work for a fixed period in European countries and financed through the European Leonardo Da Vinci programme (the FARO and ARGO projects) and some more specific to special arrangements between the university and other regional stakeholders (programme Elkano, in collaboration with the Basque Telecommunications Cluster, or programme EPEZ co-financed by the Bilbao Bizkaia Kutxa-BBK).

Every year, the Basque Employment Service (LANBIDE), jointly with the three universities of the system, elaborates a study of the labour market insertion of young graduates. Students are interview three years and a half upon graduation, in the fourth term of the corresponding year. The economic crisis induced an increase in the unemployment rates of recent graduates, rate that was following a positive evolution in the last ten years (e.g. the unemployment rate for UPV/EHU graduates in 2002, interview in the fourth term of 2005, was 11.1%). Although the data available for the three universities correspond to different periods, in many dimensions are not too different.

Table 4.8. Labour situation of graduates in the Basque Country

	UPV/EHU			**UD**	**MU**	
	Graduates 2005	Graduates 2006	Graduates 2007	Graduates 2005	Graduates 2002	Graduates 2007
	(Interviewed IV 2008)	(Interviewed IV 2009)	(Interviewed IV 2010)	(Interviewed IV 2008)	(Interviewed IV 2005)	(Interviewed IV 2010)
Number of students	7,441	7,729	7,265	2,559	696	832
Labour market participation rate	95.0%	92.5%	92.8%	86.0%	96.6%	91.9%
Unemployment rate	7.6%	13.1%	14.7%	6.7%	5.7%	13.2%
% that found employment through university	n.a.	13.0%	14.0%	32.0%	28.0%	26%
Average salary	1,511 €	n.a.	1,505 €	1,553 €	n.a.	1,514€
Employment with the right qualification (*"encajado"*)	86.0%	89.0%	87.0%	86.0%	89.0%	92.7%
% staying in the Basque Country	n.a.	n.a.	85.6%	74.0%	94.4%	90.1%

Source: LANBIDE and universities.

The scarce mobility of the labour force formed at these universities is clear since most of their graduates remained in the Basque Country three years after graduation. Graduates from University of Deusto tend to move out of the Basque Country with higher frequency. The quality of employment, measured as the percentage of jobs that require the obtained

qualification (no over qualification and no under qualification), is above 85% in the three universities. This figure, as well as the labour market participation rate or the salary, differs across disciplines, with humanities being at the bottom of the ladder and health sciences being at the top. A considerable fraction of the graduates found its job through the university, being this number higher for the private universities than for the public one.

4.3 Promoting life-long learning

The progressive globalisation of the economies and transition to a knowledge society requires a continuous update of skills and qualifications that enable individuals to better adapt to changing conditions. The European benchmark on lifelong learning concerns adult education and training. The objective of the Europe 2020 strategy is that by 2020 15% of adults aged 25-64 should participate in adult learning. Individuals with higher education tend to engage in life-long learning more often than individuals without higher educational levels. Therefore, the role of universities in life-long learning is bounded to be of special relevance.

It is important to highlight that the Basque Government is preparing a Law for life-long learning that aims at establishing a specific legal frame adapted to the socio-economic reality of the Basque Country, within the general framework of Spain. The objective of the Law is to promote and regulate an efficient system of life-long learning, creating an integral system and promoting the cooperation among all stakeholders. At this moment the Law is still pending to be approved in the Basque Parliament. This law seeks to establish an integrated system of vocational training that, based on the concept of lifelong learning will be able to meet the needs of qualification and retraining of the entire Basque population throughout his career, and regardless of their employment status. This vision exceeds the design of vocational training as a single event, developed prior to the labour insertion (VET or university degrees) or later, as a result of any work situation (on the job training or training for unemployed). It envisages training as a genuine right to acquire and update skills and allows recognising and accrediting skills acquired through work experience or other non-formal and informal learning. Among the actions that the Law proposes are:

- Promote active learning methods, which enhance personal autonomy, develop competition and encourage learning to
- Ensure flexibility, variety and quality of the offers, and more specifically, the quality of training providers publicly funded.
- Develop training activities through different teaching modalities, including distance learning
- To adapt the offer of learning to the social and productive demands
- To allow the capitalization of knowledge through work experience and other non-formal and informal learning.
- Integrating co-educational objectives and promote effective equality between men and women.
- Facilitating access by persons or groups at risk of exclusion or with special educational needs special.
- Incorporate guidance as essential support to people to develop their personal projects.
- Strengthen the training of those involved in training, orientation and the coordination of the system.
- Increase cooperation and coordination between different institutions and actors in the system.

The percentage of adults that participated in adult learning has remained constant in the Basque Country around 15% in the last four years, reaching already the target at which the Europe 2020 strategy aims. The participation of adult learning in the Basque Country is only behind Navarre

in Spain, and is well above the participation rates in other Spanish regions or European countries.

Table 4.9. Participation of adults aged 25-64 in education and training. Selected regions and countries.

	2008	2009	2010	2011
EU27	10.2	10.2	10	9.6
EU15	8.6	8.5	8.4	8.6
Germany	7.8	7.7	7.6	7.7
Ireland	8.1	7	7.2	7.2
France	6.4	6.1	5.4	5.9
Sweden	28.4	28.5	31.1	31.9
Spain	11.3	11.3	11.6	11.6
Basque Country	15.0	15.3	14.8	15.0
Madrid	12.1	11.3	11.7	13.2
Catalonia	9.9	11	10.9	10.2

Source: Eurostat

Lifelong learning can be addressed to employed or unemployed people. The Basque Foundation for Continuous VET (HOBETUZ) is the agency that promotes and manages lifelong learning among workers. It was borne in 1996 after the signature of an agreement between the Basque Government, Confebask, and the trade unions. The courses that they promote and manage are subsidised and free of charge for the students. The duration of the courses is varied, from a few hours to a few months. The higher VET centres play an important role in lifelong learning for workers. They have managed subsidies for more than 8 M€ in 2010, the last year available.

Table 4.10. Groups and subsides for lifelong learning in higher VET centres.

	2007	**2008**	**2009**	**2010**
Groups	1,859	1,887	1,928	1,650
Subsidies	7,917,891 €	9,284,874 €	9,536,063 €	8,042,329 €

Source: Basque Ministry of Education, Universities, and Research.

Also the Basque Universities recognise the importance of this type of learning in their strategic plans; however the degree of involvement of the three universities in this type of education is uneven. The courses can be financed through HOBETUZ or they can charge a fee to the students-firms, depending on its nature. The public UPV/EHU, in its last strategic plan, acknowledges the scarcity in the offer of courses for permanent and/or continuous education. Only 0.3% of the UPV/EHU's budget comes from lifelong learning courses fees, and 159 distinct courses were offered in 2008. Conscious of this reality, the UPV/EHU has set among its objectives for the period 2012-2017 the promotion of continuous education programmes oriented to the needs of the graduates and professionals in collaboration with the social and economic agents.

The two private Basque universities have been traditionally more involved in life-long learning activities, especially Mondragon University: 4000 individuals participated in 2008 in life-long learning courses and their fees account for 4.8% of the budget of the Mondragon University. This tradition of Mondragon University links with its historical roots as being a university closely related to the business network with a mission since its foundation of attending the continuous and updated educational needs of firms and professionals.

Table 4.11. Permanent and continuous education indicators*, by university (year 2008-2009)

	UPV/EHU	UD	MU
Number of distinct courses offered	49**	15	207
Number of participants	614**	1063/1101***	4000
Average duration of the courses	4.5 ECTS credits (at most 20) equivalent to 113-136 hours	50 hours/ 16 hours	29 hours
% of academic staff that participates in the courses	n.a.	10%	15%
% of academic staff that teaches in the courses	n.a.	21%	25%
% of earnings derived by fees from long-life learning	0.3%	3.9%	4.8%

Notes: *Includes specialisation courses, courses for older people, corporative courses for firms, etc. Does not include non official postgraduate studies.
**Only information for the courses offered by the "Own studies unit" and SGIKer are included; there is not detailed information for the 110 courses offered by the OTRI or Euskoiker.
***The first figure corresponds to continuous and the second to permanent formation. Continuous education courses are organised by DEUSTULAN, the Centre for Labour Market Integration of the University of Deusto.
Source: Basque Ministry of Education, University, and Science Policy and own universities

The Basque Government also recognises the importance of life-long learning in different plans affecting not only education but also innovation and competitiveness. In particular, life-long learning is one of the strategic objectives included in the last University Plan: to promote an attractive permanent education offer inside the Basque university system. That implies the development of a specific model for permanent education and the formation of teachers adapted to it.

4.4 Changing forms of educational provision

The integration of the Basque university system in the European Higher Education Area has produced important changes in the way education is provided and evaluated. An important implication is the evaluation of the students by skills, many of them transversal, and not just by exams or hours spent in class. In the spirit of these changes is the desire to better prepare students to face their insertion in the labour market. The three universities of the Basque system have developed activities to adapt and innovate in terms of educational models.

The University of the Basque Country fosters a cooperative and dynamic Teaching-Learning model which has leaded to a performing beyond expectations. Resulting of this policy is the highest number of Master and Doctorate Excellence programs within the Spanish University area. The new Master and Doctoral School is the institution in charge of the training of Master's students and Doctoral candidates in all areas of knowledge and is closely linked to R&D&i centres, institutions and companies in the local area. The Educational Innovation programs in place are:

- Integral Managing Programme: faculties' administrative and academic staff and student training and assessment for effective performance by local quality committees.
- Curriculum Development Programme: faculties' enforcement of institutional and local key indicators and quality assurance processes.
- Teaching Staff Development Programmes: senior and novel educational training programmes fostering teaching-learning active methodologies; and training in quality assurance processes.

- Teaching Staff Performance Evaluation: monitoring teachers' recruitment and appointment, students´ teaching performance evaluation and teaching training in order to ensure their professional competence.
- Close Relationship with the Basque Quality Agency.

As seen by the active programmes a distinctive element of the UPV/EHU is its compromise to quality. The bases for this quality culture model are: an effective alliance between teaching and learning innovation and quality assurance processes fostered by the unification in 2009 of both policies in a solid and well established structure with a senior leadership; the use of existing experience from EFQM based quality assurance systems in place since 1999 on; the introduction of quality assurance through staff development and evaluation processes; the empowerment of local committees responsible for quality assurance in which effective participation of staff and students is fostered; the monitoring of the process through key performance indicators negotiated with all the Faculties, making outcomes publicly available; the absence of financial constraints for the programmes in place.

With respect to the University of Deusto during the academic year 1999-2000, a phase of pedagogical renewal began to modernise the excessively professor-centred teaching and methodological model of the University. The new phase was in line with the Bologna Declaration (1999), announcing a future European Higher Education Area. The Pedagogical Framework includes what is known as the "University of Deusto Educational Model" (UDEM) and it can be described in terms of a four-sided pyramid on a base plate with each side representing one of the organisation's four key principles:

- A student-focused learning organization
- An organisation that works as a team and values cooperation
- An organisation that leads and empowers people
- An organisation with an ethical and social commitment

The proposed model is designed to help students to learn to think, enhancing their ability to research and write about aspects of their field of study, as key parts of their course of study. It is an approach to teaching and learning that is based on the association and interrelations among different subjects, each contributing specifically by providing scientific or technical knowledge and developing generic and specific competences (instrumental competences: cognitive, methodological, technological, and linguistic; interpersonal competences, individual and social; and systemic competences: organisational, entrepreneurial and leadership skills).

The Mondragon University developed its own conceptual educational model in 1999: Mendeberri. This model includes most of the aspects to be developed in the Bologna process. That similarity explains that in 2008, Mondragon University was the first Basque university to adapt its studies to the EHEA. The model is based in the development of skills, with a continuous and integral evaluation and with a practical content aimed at problem resolution. In addition it promotes and recognises the work-study training while completing a degree, being compulsory to develop a final project of one year at a firm in all the degrees awarded by Mondragon University. Mondragon University, through the Engineering and Business Faculties, is a model of integration of all higher education studies, from vocational training, to bachelor degrees, masters and PhD programs: all of them share resources, labs and teachers, covering all the needs of qualified professionals.

Differential with respect to other Spanish regions, the work-study programmes (*estudios en alternancia*) are particular to the Basque Country. Work-study programmes imply a combination of periods in an educational institution and in a workplace (usually working during the mornings and studying in the afternoons or vice versa). Mondragon University has offered this alternative, through a students' cooperative, during the last 30 years, with more than 3,500

students following it[22]. This type of innovative education, quite widespread in other European countries although is unusual in Spain. It has three main advantages: the development of transversal skills in the students, the early contact of students with the labour market and financial aid in the educational costs that it implies for the participating students. More recently the UPV/EHU has joined forces with a successful and traditional vocational training centre, the Machine Tool Institute, to offer an official degree of engineering as a work-study alternative.

Box 4.2.Work-study Programmes

The Machine Tool Institute (Instituto de Máquina Herramienta-IMH) and the UPV/EHU

The Institute, located in Elgoibar (Gipuzkoa) was officially inaugurated in 1991 and has traditionally been a centre specialised on specific technical training for the metal and mechanics industry, focusing on areas related with machine-tool. The institute has had traditionally a strong relationship with enterprises, especially local ones, and an active job section that provides first hand information about the professionals demanded by firms.

It has provided work-study vocational training quite successfully during the last decades, and after the approval of the attachment process to the UPV/EHU, the IMH Cooperative Engineering School will offer next 2012-2013 academic course the new grade "Innovation Engineering in Processes and Products" that keeps the cooperative training system and adapts to the requirements of the Spanish university degrees system. The course combines academic training with work experience in a company. This is an innovative study option which is directly related to the fact that companies require a workforce that is tailor-made to meet their needs.

The students sign a part time contract and receive a salary according to the corresponding sectoral agreement.

Although it is still necessary to make more flexible the access to higher education, some steps have been done in the right direction, mainly due to the ICT use. The three universities offer a wide range of courses on line (although usually framed through some particular program) and in their strategic plans intend to improve in that direction.

Distance education is very scarce in the Basque Country: only 156 students enrolled in the National Distance University in 2011 and for vocational training only recently has been constituted the Institute for Distance Vocational Training that started offering courses the academic year 2011-2012.

4.5. Conclusions

The Basque higher education system offers a variety of higher vocational training and university graduate and postgraduate degrees that allow a high percentage of the residents in the Basque region to pursue higher education studies. The industrial character of the Basque economy partly determines the prevalence of technical studies and the relative important of vocational training.

The relation between Basque HEIs and long-life education are more uneven, with some universities rooted in the Basque productive system and others trying to find its place in it.

The transition to the EHEA is bringing important changes to the way in which students learn and are taught at HEIs, changing the focus to an integral student formation base on capabilities and more in contact with the labour market.

Strengths	Weaknesses
•High percentage of the population with higher education •Relative importance of the higher vocational training	•Reduced mobility of students and professors •Little flexibility in the courses offered, specially for permanent education •Little collaboration with stakeholders to

[22] Work is part time (4 hours a day) and the average salary is around 500€.

• Close relation between vocational training and labour market. • Strong tradition of some innovative teaching experiences: alternance degrees.	generate courses and design teaching methods.
Opportunities	Threats
• The Bologna process and consequent adaptation to the EHEA that promotes changes in the way students learn and are taught • Stronger collaboration between agents: universities, vocational training centres, providers of non-formal education and other stakeholders.	• Increasing global competition to attract talented students. • Demographic trends • Financial restrictions to innovate

CHAPTER 5 CONTRIBUTION TO SOCIAL, CULTURAL AND ENVIRONMENTAL DEVELOPMENT

5.1 Introduction

This chapter is focused on the role of the Basque universities in the social, cultural and environmental development of the Basque Country. The third mission of the Basque universities refers to the set of activities related to the traditional missions of education and research that involves the opening of the university to its environment in order to have an economic and social impact. In general terms, the Basque University System, with a shorter tradition if compared with other systems, has evolved from a position of spectator from an ivory tower to progressively assume the socio-economic challenges of the Basque Country as its own challenges. However, at this moment it still does not play a leadership role in many socio-economic aspects, but it adapts quite well to the needs of the Basque society upon demand.

5.2 HEIs and Social Development

Basque Universities are particularly aware of the needed connection with the Basque society. Universities have to act as links with society, and society has to broadcast to the universities the concerns and needs of the society; leading to the society the skills, needs and concerns of the University.

The UPV/EHU as a public university is rooted in Basque society, with an intellectual leadership and ethical and social commitment. The assumption of its responsibility as a committed institution with the Basque society, contributing to the improvement of living conditions, the inclusion and social cohesion level of the community, as well as the sustainable economic development of the territory, is translated into an active participation in the search for solutions to the social, cultural and environmental challenges of the Basque Country.

This participation is canalized through the following activities: the generation of common spaces of social dialogue; the creation of knowledge with a clear ethical and social commitment a key player in the training of new generations of citizens; the guidance of university dissemination towards the reduction of social and cultural inequalities and to the creation of conditions that will enable a greater participation in the cultural, social and political life; the involvement of the academic community more actively in the social and cultural problems; and enhance social and cultural activities that would favour the social projection of the Basque culture and language.

At the University of Deusto, education plays a vital role in building a fairer world. For that reason the Deusto Campus Solidarity was set up in order to contribute to this mission by helping to build a highly competent university community that is committed to the Basque society, the underprivileged in the global world and the social and environmental problems and challenges as ecology and sustainability. Aristos Campus Mundus 2015, awarded as a CEIR in 2011, is a proof of the compromise of the University of Deusto with social innovation.

Box 5.1.Aristos Campus Mundus 2015 (CEIR)

The Aristos Campus Mundus 2015 (ACM 2015) project reflects the strategic aggregation of three historical, non-profit and social initiative universities in Spain, namely the University of Deusto, the Pontifical University of Comillas (with its main campus in Madrid) and Ramon Llull University (in Barcelona). During the 2010/2011 academic year, the three universities had a total of 38,692 students (14% of whom were international in origin) and 4,057 faculty members. They offered a total of 165 undergraduate and graduate degrees fully adapted to EHEA requirements at their 35 university centres.

The three universities offer an integral university project of excellence providing service to society. The most relevant features of their university model are:

- Its non-profit nature, with an agile governance structure which includes a culture of financial responsibility and accountability, the result of commitment to students, their families and society in general.

- An innovative, creative and customized pedagogical model which places people and their integral education and values at the heart of the universities' first mission.

- Activity in the R&D&I field which is growing in volume, visibility and international recognition, orientated towards the general progress of knowledge, permanently updating their faculty's knowledge and pedagogical quality and transferring research results back to society.

- Universities which strive to fulfil the goals shown within the third University mission on transferring R&D results to Life-Long Learning, as well as maintaining a special bond with professional sectors which are also involved in educational activities.

ACM 2015 represents a qualitative leap which can be summarized by the phrase, *from quality to excellence.* Numerous activities at the three universities already offer high levels of excellence and benefit from social recognition. Some of these, especially at the pedagogical level, already serve as clear international references. The aim, as such, is to specialize and improve certain aspects to balance the three university missions and project them internationally, increasing the universities' competitiveness and image on the global stage. It is a feasible vision, built upon a solid reality and based on our will and the Plan presented herein. It is a vision which is clearly *committed to socially responsible innovation.*

Specifically the Campus focuses on five important social challenges:

- Innovation and social change

- Management and social responsibility

- Innovation, competencies and values in education

- Health and bio-sciences

- Energy and sustainability

In those areas the three universities have a solid research base and the joint Campus will increase their critical mass, improving their international competitiveness and attractiveness both for students and researchers.

The aggregation is also expanding and benefiting from a collaborative agreement signed with Georgetown University, Boston College and Fordham University, representing the result of the preliminary efforts to capitalize on the university networks we already belong to. Collaboration with these universities abroad is centred primarily on the focus areas and R&D&I. In fact, specific collaboration plans with the 3 North American universities have already been enacted since the end of 2010. This is just the first step in aggregating other international universities of reference to the project.

Total budget (2012-2016): 468.43M€ (142.41 M€ for personnel, 146.7 M€ for infrastructures, 53.6 M€ for equipment, and 125.6 M€ for external services or activities).

The Mondragon University has a commitment towards social transformation, which is specified in its participatory model. The Mondragon University is a cooperative university, with a clear human vocation and a commitment to Basque environment and society. The teaching model involves a system of relationships which, with the educational system as the central theme, aims to involve the companies and institutions in the area, in order to guarantee social accessibility, the combination of work and study, the development of research and the provision of Continuing Education. One of the main characteristics of the Mondragon University is its close and permanent relationship with the working world, enabling to outline the educational offer by adapting it to the needs of companies and organizations.

5.2.1 HEIs, instruments of social inclusion and cohesion

Social inclusion and cohesion has a wide meaning at the Basque HEI. The education system has as a fundamental task to educate responsible and competent people who would provide the best of their respective cultural heritage, language or gender, contributing to the construction of a society increasingly cohesive. The three universities have activities and information regarding Corporate Social responsibility, gender equality and interculturalism[23].

Inspired by the purpose to promote education throughout all ages of life, the UPV/EHU created, 10 years ago, specific university programmes for seniors who had been unable to attend a higher education institution in their early days. The Degree in Human Sciences aims to spread culture and knowledge and pay tribute to the generations whom we owe today´s economic and social welfare. During these 4-year studies, pupils are lectured on World History, Literature, Philosophy, Art, Nutrition & Diet, Health, Music, Law, Computers or Psychology. Most of the senior students first enrolled at the university for academic reasons; however, it was the human factor that encouraged them to stay connected to University. After their graduation, most trainees apply for our University Courses for seniors, organize cultural and social events and attend a number of official courses, thus mingling with younger students.

Basque Universities also adopt and active role in social inclusion and cohesion through the research made and the education given in this field, initiatives as, among others:

- Eusko barometro (UPV/EHU), that provides since 1995 studies and a regular (every six months) survey on the political behaviour and the Basque public opinion
- Basque Immigration Observatory-Ikuspegi (UPV/EHU) that studies, collects data and informs about immigration in the Basque Country
- Deusto Campus Solidarity (University of Deusto), with programmes of training and commitment actions in the areas of volunteering and citizenship, cooperation and development, and ecology and sustainability
- Ignacio Ellacuria Social Centre (University of Deusto).

Moreover, the UPV/EHU, through the Vice Rectorate of Social Responsibility and University Projection, promotes the integration of the University of the Basque Country in the economic and social environment in which it develops. Among its tasks are to strengthen the actions aimed at achieving adequate social visibility of the university and to consolidate the corporate image of the institution. Among its activities are the University Extension Chairs that are university structures (without legal personality), whose role primarily is research and dissemination of knowledge in society. Three of them are co-financed by UNESCO Etxea, the UNESCO Centre in the Basque Country: The UNESCO Chair in Communication and Educational Values, to study the influence of communication in educational decisions through identification with role models and social and interpersonal relationships that address issues related to identity construction and educational values; the UNESCO Chair in World Heritage Languages; and the UNESCO Chair on "Sustainable Development and Environmental Education to promote an integrated system of research, training, information and documentation in the field of sustainable development and environmental education. Other four Chairs deal with different aspects relevant for the Basque society: the Family Business Chair that pursues research and training in this type of companies of family property; the Chair Miguel Sánchez Mazas for trans-disciplinary reflection on science, technology, innovation and society of our

[23] The UPV/EHU counts with a Vice-rectorate of Social Responsibility and University Projection and also with a Service to People with Disabilities created from the "Plan of Integration in the UPV/EHU of the university community with disabilities" (2001). It also provides a service of attention for students in prison. The University of Deusto develops its Social University Responsibility through design and application of integral master plans on sustainability, accessibility and inclusion, gender equality, employability, inter-culturality, solidarity and development cooperation. Social responsibility is also one of the values upon which the strategic plan of Mondragon University is built.

time; the Chair of International Studies that was created in 2004 to generate ideas, help to form opinion, provide information and sensitize the public opinion on international issues; and the Chair in Law and Human Genome.

In the same line of openness to society, the University of Deusto created during the academic year 1989-90 the Forum Deusto as a forum for presentation, reflection and discussion, with a specific university perspective. Its fundamental principles are openness to all kinds of ideas useful to society, exposure to academic rigor, critical analysis and open discussion and serene, all in an atmosphere of respect for the pluralism of the society. The Forum has invited personalities of the first rank to present and discuss each of the topics covered, that are selected around a thematic of interest for the society.

5.2.2 HEIs as promoters of sport

The Basque Universities are aware of the importance of the sport promotion not only among the student but also among the Basque society. The three universities have a Sport service.

The UPV/EHU objective is to educate through sport with a decentralized, effective and efficient management in the three campuses. The sport service is focused on increasing the quality and the quantity of the sport offer and facilities, advocating the partnership, foster relations with suppliers (gyms, firms, federations, clubs…), facilitating the sport practice that contributes to improve the quality of life, health, etc. The lines of action of the university are developed in three areas: promotion, with the organisation of sport courses and outdoors activities; competition, with the promotion of campus, intercampus, national and international events in more than 30 sports that involve more than 8000 individuals, with special attention to the participation in general and the female participation and participation of disable people in particular; and training, with the organisation of courses, collaborative projects, and programmes of support for sportsmen and sportswomen. The UPV/EHU has incorporated the social responsibility dimension to the supply of sports activities. In this respect, the support of female sport by the UPV/EHU has been recognised with different prizes as the Women's Institute–High Council for Sport Prize in the last two editions or the Basque Government's Euskadi Prize for Sports in "Equality between men and women". The social responsibility dimension can be also seen in the specific support for disabled in their sports activities or the supply of activities related with the respect to the environment.

The Sports Department provides Deusto students with a comprehensive education through the practice of sports. There are three different action areas: recreation, competition and training. The University of Deusto operates intra-mural championships in which both male and female students compete in a number of different sports categories such as: football, 7-a-side football, 5-a-side football, handball and basketball, rugby, tennis, table tennis, squash, front-tennis, handball, paddle tennis, chess, archery and Basque tennis (pala). The University conducts a wide range of competitions, and it operates teams for: chess, basketball, handball, volleyball, discussions, micro-robots, rowing and ice hockey that take part in the sphere of affiliated and university competitions at a local, regional and national level.

The Sports Service of Mondragon University responding to the educational project of the university, has as its fundamental bases improve the quality of life of all its collective, workers and students, through physical activity and sport. A service to the population of the University is offered, through the practice of various physical and sports activities, and conducting a management based on the user customer. The objectives of this service are to promote university life through physical and sport activities and health, promote and improve relations between workers and students through the of sports, physical and health activities, develop the objectives of the educational project Mendeberri through sport and physical activity, promote an active lifestyle among the people in Mondragon University and promote the relationship between the various universities through University Sports.

Since 1981, the Engineers UPV/EHU- Deusto Regatta is yearly celebrated on the Bilbao estuary and is consider as one of the milestones in the Basque sport life. This regatta is a rowing amateur competition in which the rowers have to cover a distance of 4 nautical miles (7.408m).

The chosen method is Olympic and in particular the Olympic outriggers of eight rowers and a helmsman. It is a struggle between colleagues and universities that it held in the purest spirit of competition. The teams taking part are made up of students from the Faculty of Engineering-UPV/EHU on one side, and the University of Deusto on the other side.

The UPV/EHU, jointly with the Club Atletico Donostiarrak, organises the Donostiarrak Spring Race, a 10km race that has tripled its participation since its first edition in 2003, and now gathers more than 1,200 athletes.

5.2.3 HEIs, platforms for international cooperation and development

The UPV/EHU and the University of Deusto has strong routes on the international co- operation and development. The UPV/EHU has an office for co- operation development in order to promote solidarity in the university community, oriented to strengthen the society capacities with which cooperate, with special emphasis in the university and educational sector. In particular the Office aims to coordinate, support and channel the efforts of different sectors of the university in co- operation and development. The University also has an international co-operation and development Research Institute, Hegoa, who works in the promotion of the human development. This institute offers two master's degrees in Development Cooperation, a research programme oriented towards a Doctorate programme (awarded with distinction of excellence by the Spanish Ministry of Education) and a professional programme. Both of them receive the highest number applications of all graduate programmes of the University. In the terms of research, the institute aims to construct, propose and implement paradigms, models and strategies for human development and international cooperation.

The UPV/EHU has gone one step further than what it is traditionally understood by cooperation. In this regard, since 1997 it has been developing a Masters and PhD programme that is offered on destination, in order to contribute to improving the quality of teaching and research in Latin American universities. The Latin-American network of PhD created by the UPV/EHU is aimed at creating scientific communities in these countries and aims to achieve an integration of these communities in an area of knowledge of the Latin American environment in which the UPV/EHU is the dynamic agent.

The University of Deusto, through the Solidarity Campus develops a line of action focused on cooperation and development. Conferences, courses and round tables are held in other to aware the university community and the Basque society of the issues related with cooperation and development. The University also has a group called University + Development made up of volunteers from different degrees, that are the driving force of the Cooperation and Development programme. They are committed with making university members aware of Development Cooperation and volunteering projects on cooperation in developing countries during our holidays.

The Mondragon University also pursues several initiatives with the intention of integrate solidarity in the students and university community daily life. Noteworthy initiatives as international cooperation volunteer programme (Haima) or involvement with the activities of different NGDOs.

5.3 HEI and Cultural development

5.3.1 HEIs as generator of knowledge and excellence among culture professionals

The Basque HEI is composed by three universities together with other institutions created in order to encourage culture among the society. The strong compromise with the professionalization of the artistic sectors is reflected in the creation, by Basque Government of two educational institutions focused on music and scenic arts.

In 2001, the Basque Government agreed to introduce higher music studies as from the 2001-2002 school year. Therefore, *Musikene*, the private Foundation for the Higher School of Music of the Basque Country was founded. The objective of Musikene Is to promote, on a non- profit

basis, initiatives and activities related to the teaching of music, entrusting this foundation with the creation of the School, which is located in Donostia- San Sebastian.

We must also mention *Eszenika*, the first High School of drama, dance and stagecraft in Euskadi, highly demanded by the sector. This higher school will open its doors the 2012-2013 year school, giving training in the first year to 60 students and will be located in a space owned by the Basque Government. The centre will establish titles equivalent to university degrees as well as graduate, both professional postgraduate and master and doctorate degrees in collaboration with the UPV/EHU, this will allow an easy transition to the University system.

Eszenika will offer higher training degree in dramatic arts and dance, with a professional and specialized orientation, and it is expected collaboration with other centres of the European Higher Education Area.

Since the fall of 2011, the Basque Country counts with a distinctive offer in the European cultural education environment. *DigiPen* (the first school in the world to offer a bachelor's degree in game development) settled down in Bizkaia. DigiPen Institute of Technology, an American initiative, is a pioneer in game education committed to providing an exemplary education and furthering research in digital media and interactive computer technologies. Through the work of its students, faculty, and staff, DigiPen strives to empower and inspire the digital media and simulation industries around the globe. DigiPen Europe-Bilbao joins the school's Redmond, WA (USA), and Singapore campuses in pursuit of this goal. The development of the video game and digital animation sectors will provide cutting-edge jobs and resources for people in this region and beyond. Additionally, the school will foster connections and strengthen relationships with industry-leading multinationals, attracting businesses and helping to cultivate a skilled workforce that will promote innovation and entrepreneurship in Basque County.

The Basque universities also present a wide offer of studies related with art and culture. The UPV/EHU, through its Faculty of Fine Arts, offers a Creation and Design grade. This degree dealt with the applicability of art from a general perspective and provides skills in specific areas of application such as industrial design, textile design, advertising design, and design of furniture and of objects of decoration, etc, being the specialties of this degree: illustration, graphic design and pottery. The Creation and Design graduates are trained to work in the field of graphic and visual communication, design of objects, and in the field of urban and environmental spaces, firms, communications as well as in the practice of ceramics.

Together, the faculties of Social sciences and communications and Fine arts, offer a master degree in Arts and sciences of the spectacle. The master is oriented towards the professional practice, teaching and research in the field of dramatic writing, scenic arts, stage direction and performance, choreography and stage productions management. The skills acquired also involved applied research and the development of plays at stage along with knowledge of new technologies applied to creation and innovation in the performing arts and entertainment. No doubt their functions shall be adapted to the development of Eszenika in the following years.

Box 5.2. Basque Culinary Centre

The Mondragon University, together with the Basque chefs and public institutions developed in 2009 a new faculty focused in one of the most distinctive Basque cultural aspects: gastronomic science. The Basque Culinary Centre has the aim of guaranteeing the continuity of cuisine as a centre for innovation in the future, which also implies the generation of high-level knowledge and the training of qualified professionals; promoting research and knowledge transfer among haute cuisine professionals and business sectors and knowledge related directly and indirectly to gastronomy; and to achieve international projection. Boosting technology transfer and innovation in sector companies is another of the centre’s great objectives, as well as the creation of new business initiatives and projects.

The Faculty of Gastronomic Sciences, member of Mondragon University offers you 3 educational categories with which to attend to the different needs: degree in gastronomy and culinary arts, Master in Innovation in restaurant management and training for professionals.

The centre's lines of Research and Innovation in Food and Gastronomy are developed around the following:

- Food education and habits.
- Food social responsibility.
- Food trends.
- Innovation in business management in the sector.
- Development of associated technologies.
- Food preparation, presentation and conservation.

5.3.2 HEIs in the development of the culture of creativity and innovation

The UPV/EHU is involved in the development of the culture of creativity and innovation in the Basque Country. In addition to the grades previously presented, the University has a number of collaboration agreements to promote culture in different areas of the Basque society.

The UPV/EHU has a cultural programme that hat the objective of complete the formation of students and of the rest of university community. The activities are developed in the three campuses and include music, theatre, dance, conferences, exhibitions of the own students and teachers of the Fine Arts Faculty, and different awards.

In addition, the UPV/EHU- Fine Arts Faculty holds a collaboration agreement with the Guggenheim Bilbao Museum that enables various initiatives. Some of them are jointly developed since the inauguration of the museum (1997), as the student practice program, whereby 625 students have been able to stay in contact with the professional reality, with practices in different areas of the Museum. Other initiatives are focused in offering to the students the possibility to participate in artistic projects undertaken by the Museum, coming into contact with artists. The collaboration agreement also includes the celebration of different summer courses related with Art and creativity. Finally, both institutions work together in the planning and development of future projects of Master and Post graduate courses as well as the participation of the Fine Arts Faculty in training projects promoted by the Guggenheim- Bilbao Museum Foundation.

The Basque Country's Mining Museum has also signed an agreement with the UPV/EHU, in particular with the University College of Technical Mining and Civil Engineering which develops training activities, research and support in the areas of mining and civil engineering.

The University of Deusto contributes to culture generation through its *Campus Cultura*. This campus is an open cultural space where students at the University of Deusto can create and be actively involved. It is divided into six main areas including performance, music, literature, and other artistic and cultural activities. They all make up the cultural programme each academic year. These projects and programmes are mainly focused on students and they seek to encourage them to participate and become actively involved.

5.3.3 HEIs creators of new publics and generators of cultural activity

The Basque Universities generate culture activity through the several conferences, seminars, plays that are held not only during the scholar year but also throughout the summer schools. Besides, the three universities edit magazines with the cultural and educational life. The Campusa magazine is the speaker of the social and cultural life of the UPV/EHU. Deusto is the Deusto University magazine.

The Mondragon University edits: MU, a magazine directed to the Basque society, Mendeberri, that covers the opinions of the university community about their shared educational project and Irakur Gida that selects the best child books in Basque.

Box 5.3. The UPV/EHU Summer Courses

The UPV/EHU, in collaboration with relevant agents, organizes Summer Courses in the three Campus, each of them with different structure and thematic, and with a long history of success. These summer courses are a forum in which to present and discuss the local and global challenges of the society.

The University of the Basque Country Summer Course Foundation organizes in 2012 the XXXI edition of the **Summer Courses of Donostia-San Sebastian**. The deep links of the courses with the society are clear from the collaboration in their organization with the San Sebastian Town Hall, the Gipuzkoa Provincial Government, the Basque Government's Department of Education, Universities and Research and the BBVA Foundation, and also counts with the participation of other universities, institutions and cultural, professional and scientific associations (e.g. Real Sociedad Soccer Team, Elkargi, Chamber of Commerce y Basque-Navarre Federation of Savings Banks). The mission of these courses is to reinforce the links between the University and the community and to stimulate professional development and discussion of current issues.

Within this framework, a collection of Courses, Seminars, Meetings, Schools, Professional Conferences, Workshops and Congresses search to answer the needs and interests of all types of students (students, professionals, professors and the general public). The program is organized between June and September around four main points: learning to live, learning to coexist, learning to progress, and learning to teach. Each edition is structure in cycles, some stable and some related to the topics of the moment. Every year around 1,000 professors participate in the courses that are attended by around 7,000 students. There is an effort to internationalize the character of the courses making them more attractive to academics and students from the European area. Its budget for 2009 was of 1.4M€.

The UPV/EHU also promotes the **Bizkaia Bilbao Arts and Culture Summer Courses**, this year in its 13th edition. The courses deal with different aspects of scenic arts, dance, arts and the media, literature and cultural dissemination, music, or other topics of social character.

The objectives of the courses are:

- Facilitate the contact of the students with professionals and academics of international prestige
- Attract professionals, academics and students to the educational frame of the university
- Bring the university nearer topics usually out of the university but with an important projection
- Develop an image of the UPV/EHU as an educational centre of excellence
- Develop the collaboration with cultural institutions of Bilbao: the Guggenheim Museum, the Fine Arts Museum, Sala Rekalde, the Music Centre Juan Crisóstomo de Arriaga, the Association of Scenic Arts Technicians, the Bilbao Symphonic Orchestra, the association Bilbao Metropoli-30, etc.

The courses have a marked international character that shows in the origin of their participants, both as teachers or as students.

Finally, since 1981, the UPV/EHU organizes in **Vitoria-Gasteiz the International Law and Relations Courses** as a forum of discussion and dissemination of knowledge on topics related to the challenges face by the international society. The program is organized in seven courses and a round table and the courses are highly specialized, with a rigorous selection of the attendants that are limited to around 100.

The courses have count with the collaboration of public and private institutions: Vitoria-Gasteiz Town Hall, Araba Provincial Government, the Basque Government's Department of Education,

Universities and Research, the Basque Government's Direction for European Affairs, Caja Vital, DG of Education and Culture of the European Commission, the Spanish Office in the European Parliament, the Basque Parliament, Telefonica Foundation, and the Institute for Democratic Governance-*Globernance*.

5.3.4 HEIs engaged with Basque identity, culture and language

The Basque Country is a distinct place with a unique history culture and language. The Basque universities are active actors in the encouragement, development and standardization of the Basque language, identity and culture.

The creation of the UPV/EHU (1980) coincided in time with the approval of the Statute of Autonomy (1979) and with an important process of recuperation of the Basque language, reflected in education, literature, media, etc. The UPV/EHU was involved since the beginning in this process and decided to take an active policy of protection and promotion of the Basque language. The pillar on which is based the use and learning of the Basque language at the UPV/EHU are the Statue of Autonomy (1979) and the Basic Law on the Standardization of the use of Basque Language (1982). The UPV/EHU statutes gathered the most important issues for the promotion of the Basque language and recognise the right to study and teach in any of the two official languages, Basque or Spanish. Basque Language Vice-chancellor office, the Basque Language Institute (set in 1996) and the different Basque language commissions were set up in order to encourage the use of the Basque language at the university, not only in teaching and administration but also in research. Moreover, several plans of standardization have been pursued for the inclusion of the Basque language in the everyday life of the university, which has provided a considerable increase of its handling among the university community. The success of the policies to preserve and promote de Basque language has been considerable: in 1995-996 24.47% of the new enrolments were in courses taught in Basque language, in 2010-2011 this figure was of 42.8%; moreover, from 13% professors able to teach in Basque in 1989 the figure has rise to 45.1% in 2011.

There has also been a strong commitment to use the Basque language in research and to develop research in linguistics associated to the Basque language. Examples of that are the works done by the Basque Language Institute. Throughout its history, the Institute of Basque Studies has been focused on promoting higher education related to Basque Studies, spreading Basque language and culture, promoting research on Basque culture, publishing and disseminating research results, collaborating in a wide variety of tasks concerning Basque language and culture at the University and creating a specialist library for Basque subject.

More recently (2008) the UPV/EHU jointly with Euskaltzaindia (Royal Academy for the Basque Language) established the Koldo Mitxelena[24] Awards to the best thesis wrote in Basque. Since 2009 the UNESCO Chair of world linguistic heritage started also to function with the objective of contributing to the sustainment of the world language heritage, and in particular to guarantee the international presence of the Basque language given the deep experience in terms of standardisation and recovery of minorities' languages. In the same line of internationalisation and promotion of the Basque philology several collaboration agreements have been signed between the UPV/EHU and international universities or institutions. In this respect is worth to mention the collaboration agreement with the University of Nevada (Reno) and in particular with the "Center for Basque Studies", an international study centre dedicated to research into and publishing on Basque topics.

Within the framework of its University Project, the University of Deusto aims to express its particularly close ties with the Basque Country and its firm commitment to promoting and spreading knowledge of Basque culture. On 1974, it created the Department of Biscay Studies,

[24] Koldo Mitxelena (1915–1987) is the most renowned Basque linguist of all time and one of the principal architects of unifying or standardizing the Basque language. He also played an important role in the creation of the UPV/EHU where he fostered studies in Basque philology, university of which he became the first professor after retirement.

jointly with the Regional Council of Biscay. It was made up of three university chairs: History, Law and Basque Language with a specialist library. The department carried out all types of teaching, research and dissemination of our culture. Five years later, when democracy was restored in Spain, on 1979, the Department of Biscay Studies became what is at present the Institute of Basque Studies, run exclusively by the University of Deusto. In 2009, the Institute became a part of the Faculty of Social and Human Sciences, retaining its main aim of spreading Basque language and culture.

5.3.5Joint working between universities

Unibertsitate.net has been created as a portal serving the Basque-speaking university community. The Unibertsitatea.net portal is a project of the Udako Euskal Unibertsitatea (UEU, Basque Summer University) but is the result of the collaboration of the UPV/ERHU, University of Deusto, Mondragon University and public institutions.

This portal aims to be a meeting place and point of reference for anyone associated with or interested in the university, such as students, teaching staff, researchers, parents, members of the press, etc., and thereby to promote the development of the Basque-language university community. This collaborative project has three main objectives: to provide a meeting place for the university community, to centralize information and to facilitate communication and interaction.

5.4 Environmental development

In terms of the social responsibility of the HEIs, the university should be conscious of waste management as well as the energy resources they consume. They should also generate knowledge to work on the development of environmental policies and awareness-raising in society in general.

The Basque Country has an important number of researchers and research centres whose activity focuses on environmental issues and sustainability.

BC3 - Basque Centre for Climate Change (www.bc3research.org) - is a climate change research centre where a multidisciplinary team of researchers analyse the causes and consequences of climate change. The UPV/EHU, the Basque Foundation for Science (Ikerbasque) and the publicly-owned environmental management company Ihobe are the members of this centre.

The Map of Climate Change Knowledge identified 30 research teams in the Basque Country working on climate change issues. Twenty of the teams are based at the UPV/EHU and the remainder at technology centres. The map identified 359 researchers in this field, 440 projects conducted in the last three years, 421 ISI publications and 160 doctoral theses, as well as 111 stable international alliances with prestigious universities and institutes. This activity costs 12.2 million Euros annually, of which 84% corresponds to public funding and 12% to European funds.

The research centre CIC EnergiGUNE (Co-operative Energies Research Centre) aims to become an international benchmark in the renewable energy field. The centre has the backing of public institutions and administrations, and of companies directly related to the energy sector. The CIC operates as a private foundation.

There are seven sustainable building groups and one urban planning group, three stable research groups at the UPV/EHU, 39 researchers and another three groups in the technology centre Tecnalia Research and Innovation. Tecnalia Research and Innovation is an active participant in the DEMOHOUSE project (Design and Management Options for Improving the Energy Performance of Housing) developed under the auspices of the European Eco-buildings initiative of the Sixth Framework Program. The aim of the project is to develop a set of minimum standards and regulations relating to health, economic efficiency and sustainable renovation in order to reach European agreements in this field.

The ECODESIGN LAB is an educational initiative developed by the School of Engineering of the UPV/EHU, the University of Mondragon, the environmental management company Ihobe,

the BAI Innovation Agency of the Provincial Council of Biscay, and the Provincial Council of Gipuzkoa. It is sponsored by the United Nations Environment Program (UNEP). It was launched in December 2002 to provide eco-design training and establish channels of collaboration between industry and universities as a means of encouraging the implementation of sustainable practices in the Basque industry.

The UPV/EHU is building an experimental sea station to study the health of marine ecosystems and the consequences of their deterioration on human health and well-being. The Plentziako Itsas-Estazioa (PIE) project not only aims to support teaching in the environmental field but also research into experimental marine biology and biotechnology. It will offer two official master's degrees with quality certification, international postgraduate courses and in-service training for environment professionals and experts. The staff at the sea station will be comprised of existing research teams at the Basque university, as well as specific staff for the research chairs that the PIE hopes the create and staff seconded from research and technology centres. The total budget estimated for the creation of the PIE is 7 million Euros, principally provided by the Provincial Council of Biscay.

The UNESCO Chair on Sustainable Development and Environmental Education of the UPV/EHU, under the Biosphere Reserve of Urdaibai, promotes research and other activities that are aimed at understanding and solving problems related to the Basque sustainable development and especially in the Biosphere Reserve of Urdaibai, as a model territory for sustainable development.

The Institute HEGOA (UPV/EHU) also carries research and activities related to sustainability but from the point of view of the sustainable human development, contributing significantly to its spread in our environment through teaching, publications and research.

Finally the Environmental Economics Unit - Institute for Public Economics at the UPV/EHU, as joint initiative of the Department of Environment of the Basque Government and the Institute for Public Economics at the UPV/EHU, has as a primary objective to analyze the relationship between economic activity and environmental Basque.

The activity of the HEI in environmental development is not only reduced to research. The HEIs contribute to environmental policy decision-making through active participation in projects on the design and implementation of environmental policies on a number of issues relating to the environment including climate change, soil contamination or biodiversity. Among the most relevant are:

K-EGOKITZEN project (www.k-egokitzen.es). University departments of the UPV/EHU (Nuclear Engineering and Fluid Mechanics, Geodynamics, Applied Mathematics, Plant Biology and Ecology, Zoology and Animal Cellular Biology) and technology centres are developing joint research on climate change mitigation and adaptation strategies.

ECOBERRI project (www.ecoberri.net). Two research groups from the UPV/EHU (Engineering School of Bilbao – Eco-Design Seminar and Analytical Chemistry Department - IBeA), two institutes from the Deusto Foundation (Orkestra and Social Research) and the Environmental Economics Unit of the UPV/EHU collaborated in this project coordinated by Tecnalia technology centre aiming to identify opportunities for a low-carbon economy.

BERRILUR project (www.berrilur.net). University departments of the UPV/EHU (Departments of Analytical Chemistry, Plant Biology and Ecology, Zoology and Animal Cell Dynamics, Geodynamics Department at the Faculty of Science and Technology, Department of Chemical Engineering and the Environment at the School of Engineering, and Department of Analytical Chemistry at the Faculty of Pharmacy) together with technology centres are developing strategic research to protect soils and underground waters, as well as ways to clean-up contaminated sites.

ECOANCHOA PROJECT – A technology centre is leading this project, funded by the Basque Department of Agriculture and Fishing, in which the UPV/EHU is also involved. The aim of the project is to establish the importance of predation between competitors (i.e. species that as

adults compete for food but, at the same time, are predators of other species' eggs and larvae) as a mechanism to control the anchovy population in the Bay of Biscay.

The UPV/EHU has also participated in the activities related to the European Green Capital of Vitoria-Gasteiz with conferences, courses, etc.

Finally, the University Plan 2011-2014 sets out an agenda for action designed to strengthen the role of University as a space that encourages critical thinking, equal opportunities, entrepreneurship and sustainability. The actions set out to encourage sustainability include:

- Developing sustainability plans
- Increasing the proportion of university campuses with environmental management systems and/or environmental compromises. By 2011, 40% of Basque university campuses had assumed environmental compromises.
- Creating the sustainability office
- Training courses and communication activities

All these actions will become useful experiences to identify and develop new measures addressing sustainability issues in the region. They will also help the Basque HEI to integrate into its social, environmental, economic and cultural environment.

5.5 Conclusions

The Basque HEI system is particularly concern of their definitive role for the Basque society as knowledge and culture generator. The three universities are concern about environmental, social cohesion and diversity issues, encouraging among the universities students and employees this spirit. The environmental aspect is also pursues both in daily basis and in long term activities and projects. Social inclusion and solidarity are intrinsic values to the Basque universities.

It is positive that Basque universities will join to ongoing projects advocated to put into perspective the role of arts in the configuration of a learned and educated society.

It is true that, little by little, are emerging institutional initiatives. But they are specific elements that still require a great deal of good will and commitment and much effort of awareness in the academic, social and political sector. Basque universities can also make that those initiatives will serve as an incentive for the Basque Country cultural policy.

Strengths	Weaknesses
• Adaptability to the demands of the society • Wide range of activities related with culture spread • Strong commitment with Basque culture and heritage • Strong commitment with environmental concerns • Concern about the need to develop a strong network of educational institutions focused on music and scenic arts • Spread cultural activity to the society • Collaboration with the Government in cultural and environmental issues • Research and research centres focused on environmental issues	• Lack of leadership in social areas of relevance • Lack of collaboration between the HEIs • Lack of collaboration between the HEIs and business sector in the development of activities for the promotion of social cohesion and environmental issues • Lack of collaboration between HEIs and other private and institutional actors in the generation of cultural activities • Link with the sanitary and biomedical research can be better

Opportunities	Threats
•Growing network of arts schools which facilitate excellence •Adaptation to new behaviours in culture, social cohesion and environment •Improve cooperative initiatives among universities •Establish routes for public-private cooperation for the development of cultural projects. •Activities related with open education (UPV/EHU programmes for seniors) •Develop and encourage connections between universities and the new music and arts educational institutions •Collaboration with creativity and cultural industry in the development of artistic initiatives •Develop joint initiatives for promoting environmental awareness	•Inflexibility in most of the HEIs to adapt to social changes •Develop initiatives and activities with a clear focus on lines of action in order to improve society concern about culture, environment, social cohesion

CHAPTER 6 CAPACITY BUILDING FOR REGIONAL COOPERATION

6.1 Mechanism to promote HEI's regional involvement

HEIs are considered as a key aspect in the Basque Country regional development. The Basque Country has not a unique strategic plan covering relevant aspects concerning regional growth and welfare. In fact, the Basque Government sets up and coordinate several plans in which Basque HEIs are involved in one way or another.

-The Basque Employment Strategy 2011-2013 as well as other plans and governmental initiatives that assume the challenge and responsibility of promoting the labour market integration, increasing levels of employability and enhancing the stability and quality of employment.

-The Basque Vocational Training Plan 2001-2013, which develops a new framework in which to increase professional competences, to increase the relations of Vocational Training schools with business centres and to recognize skills, work experience and non-formal training.

-The Euskadi Energy Strategy 3E- 2020 that defines the objectives in the field of efficient use of energy and development of renewable energy sources and energy infrastructures, and determines the action lines for the marked target. Coordination is essential with new needs for education, science, innovation and technology that many energy objectives incorporate.

-The Basque Health Plan 2010- 2012 that takes the challenge to address the multiple determinants of health and marks the direction of the policies for the health system and for all the actors involved, included the university

Moreover, and as It has been described in Chapter 3, the Basque HEIs have strong routes in three strategic plans to the Basque Country growth and development:

-The University Plan 2011- 2014 that promotes programs and actions that favour talent training and attraction, quantitative and qualitative growth of the University- business cooperation able to generate technology capabilities and to promote people training to tackle with other topics as environment and territory, social welfare, etc

-The Business Competitiveness Plan 2010- 2013 that defines the Basque economy competitiveness model and integrates the main action lines and budget concerning the industry boost

-The Science, Technology and Innovation Plan 2015 that determines the broad lines of science and technology encouragement in the Basque Country, and the internationalization of Basque research and innovation.

The UPV/EHU also has the Social Council, and the new initiative Euskampus, also is considered as a mechanism to promote HEI's regional involvement.

The University of Deusto considers that the Basque government planning instruments represents a good opportunity to highlight the HEI's involvement in regional's development. On the other hand, the Mondragon University is absolutely committed to society transformation.

6.2 Promoting regional dialogue

The Social Council is the universities governing body that ensures the participation of the Basque society at the universities. This council represents, through its members, the various social interests of the Basque Country and the universities community. In fact the Social Council acts as liaison between the university and society conveying to university the society concerns and needs, and leading to society the universities capacities, concerns and needs.

The UPV/EHU Social Council as its Strategic Plan 2011-2014 has as main objectives, to strength the Social Council acknowledgement, strengthen the cooperation mechanisms to facilitate the function of control and supervision of the Council and the impulse to socially and strategically relevant university projects; promote the appropriate university funding and effective and efficient management of university resources, to boost the presence of university

in the society, through the creation of forum and meetings that contribute to the dialogue and social dissemination of the UPV/EHU creative activities. In order to reinforce the regional dialogue the UPV/EHU has set up *ehuGUNE*.

The UPV/EHU is also involved in some of the Basque RTOs, and works jointly with some of the organisations devoted to talent attraction and retention at the Basque Country. Along with the activities that promote regional dialogue, the Euskampus initiative represents the strategic change in the organization and management in the UPV/EHU relation with the regional stakeholder.

Box 6.1 ehuGUNE

ehuGUNE is a meeting point for the university and civil society, in which some of the most important issues for the society are analyzed, treated and discussed from a college perspective. The UPV/EHU has a duty to make a contribution to the social problems that are of special concern and that arouse the Basque society interest. The University wants to organize talks and promote a dialogue on important issues to the whole society. The University does not advocate a single opinion about those issues, but has to propose a special reflection and methodology model to address these issues, on the basis that the contribution if the UPV/EHU can be important in this regard.

The main objective of ehuGUNE is to provide a platform in which the UPV/EHU can voice its thoughts on important issues for the society, but also has other objectives, such as to promote the participation of the scientific community and in particular of the UPV/EHU researchers and specialists in dealing with topics of special interest, to offer a place in which it is possible to contrast and compare these opinions with the citizenship and to disseminate to society both the results and the reflection process.

ehuGUNE is a recent initiative and the panel of topics is still open. In any case, the topics will be related with the peace process, wounds created by violence and the fear in the society, human values at risk, socio- cultural challenges of the Basque society, globalization, the influence of the financial and economic crisis on our social model, social movements and collectives actions, the diagnosis of the socio- demographic problems, citizenship challenges, democracy and government forms, self- government and the European Union, the asymmetrical federalism, historical rights gender equality in the current Basque society, language options in a multicultural society, sustainable development etc.

The University of Deusto's management team fosters participation in formally established bodies and informal spaces for reflection and action. The University has also encouraged decision makers (institutional, private and public) in its governing bodies and centres. In addition, the relationship with the professional world is assured trough the participation of experts as lectures, the encouragement of jointly research and the transfer and social outreach.

Mondragon University has a close interaction with local actors. The Campus- Pole approach assures that the University, firms, RTOs coexists in the same locations establishing a bidirectional interaction. In all these locations the participation of regional stakeholders at the highest level, representatives of the productive sector has structural character, being the practical participation truly remarkable. MU, also, unlike other non- cooperative universities has a number of management bodies with power to make strategic decisions. These bodies are composed both cooperative partners as representatives of companies, institutions and students.

6.3 Evaluating and mapping the impact of regional HES

In 2008, the UPV/EHU made a study about the socioeconomic impact of the University on the Basque region. This study considered as pioneer in the Basque university panorama, shows the great influence which has the UPV/EHU in the development of the Basque Country. The UPV/EHU is a large dimension institution, whose activities absorb a high volume of public and private resources and its results have, quantitatively, major impacts in the whole society.

The study considers the impact of the university activities over employment, production, income, productivity and salaries in the Basque economy together with the tax collection and Basque language dissemination.

Taking into account a long- term perspective and considering the lasting effects that the UPV/EHU activity has on the allocation of available resources, the best and well- know result is the training of graduates and its direct consequence on the people qualification improvement that represents an increase of the available human capital at the Basque Country. That fact is reflected over higher incomes, more qualified employment, and more value added to the economic activity.

Additionally there are other results of the university activity that also contribute to improve the Basque Country economic activity, increasing other long- term productive resources such as the scientific and technology knowledge production. To the extent that these activities are of interest for the market, they generate employment and higher salaries for graduates, bringing productivity improvements and causing better incomes and tax revenues.

Regarding the short- term, the Basque HES regional impact is consequence of the set of costs associated with the activities of the universities: the payment of the staff, purchases of goods or services, together with the expenditures undertaken by the students as a result of being pursuing academic studies. It has also taken into account the activities promoted by the universities such as congresses and scientific meetings that bring spending to the Basque Country. All these costs produce significant impacts on demand and employment in the university closest environment.

Besides, the UPV/EHU has significantly contributed to the development, promotion and diffusion of the Basque language. The importance of the UPV/EHU is essential in what refers to ensure the realization of the entire educational cycle in Basque, allowing studies in Basque in practically all the degrees offered in each of the provinces of the Basque Country.

Moreover, the three Basque Universities are a dynamic element in the Basque Country regional development. In addition to produce qualified personnel and produce and disseminate knowledge, universities also stimulates the geographic area through the support for entrepreneurial activity, knowledge transfer, interaction with companies and the resolution of society problems, and the generation of technological and scientific capabilities.

In particular, the UPV/EHU is actually working on an update of this study. Together with this activity, UPV/EHU is also involved in the dissemination of these results together with the improvement of the social perception of the University trough the UPV/EHU Social Council.

The University of Deusto use also public statistics and studies carried out by the Basque Government department and regional council to evaluate and map its impact. Different agents of the University work to inform and communicate and involve society in Deusto's activities and contributions to educational, social, economic, cultural end environment development. The University also has mechanisms to assess and audit its performance along with brand and image studies.

In the case of the Mondragon University it is possible to find four different mechanisms to assess its activity impact. Firstly, a *Field Study of the University Graduate employability* that measures among other variables the rates of employability, and the graduate fitting. Secondly, *the Feedback from institutional and business stakeholders*, this feedback has a permanent character and represents an intensive process of contrast and evaluation between external actors and the University. This diagnosis precedes the development of the annual management plans. Thirdly, the *Fields studies* commissioned by the University to asses issues related with the Mondragon University trademark positioning, the university attributes, educational model assessment. Finally, the Evaluation of the *University Plan Indicators*, it consists in the assessment of the pool of indicators included in the University Plan that allows a comprehensive monitoring of the evaluation of the identified actions.

6.4 Institutional capacity building of the regional development

As it has been said before, Basque HEIs has a great importance for regional development. Each university strategic approach together with the University Plan 2011-2014 tackles with the commitment of the Basque Country development, not only in educational issues but in aspects such as economic growth, science and technology generation and transference together with culture, multilingual issues, business or gender equality.

It is remarkable than within the University Plan 2011-2014 the three Universities sing Programme Contracts that are part of the following general programmes:

-Trilingualism Programme

Through this program, actions are intended to provide teachers and support staff with the required language skills in English and Basque languages. This is related to the impulse of the three strategic objectives of the University plan related to teaching: consolidate a teaching activity of reference, able to take advantage of all the opportunities of the European Area of Higher Education from innovation and the bet for the trilingualism; develop an attractive and advanced offer in continuous and permanent training; respond to the educational differential demands of the Basque society, in particular, leading to coverage in Basque all the services and activities of the university life.

The expected results are to guarantee that HES has sufficient human resources to ensure a range of qualifications in Basque according to the established curricula, and sufficient English knowledge to increase the number of credits in English facilitating the university internationalization.

-Research Programme

In this programme are all the actions related to the increase of the universities research capacity and own knowledge generation are included. Its main objectives are: to increase the research productivity and impact of the universities of the Basque Country University system and to train, retain and attract talent, creating conditions to develop an attractive career, especially in the research field.

The expected results are an increase in the scientific and technological training level of the researchers and assistants; an improvement of the infrastructures and equipment; the generation of new research groups, enlarging the number of high level research groups, increasing the scientific and technology productivity of research activity, recognizing research excellence, and promoting university capacity building and specialization in priority research areas.

- Science and Technology Dissemination Programme

This programme has two objectives: bringing science and technology to society and in a complementary way, publicizing the Basque university system research activity. The final objectives are to strengthen the role of Basque universities as disseminators, to increase the interest in science and technology and to obtain the recognition of its importance to enhance the Basque society welfare.

The expected results are to awake the interest for science and technology, moving science and technology closer to the society; to raise the awareness about the importance of science and technology and its potential to generate well- being, richness and a more cohesive society; to promote the scientific and technology carrier; to show the activity that is being carried out in this field by the Basque universities.

- University- Business Programme

This programme articulates the actions on the promotion of the exploitation and transference of knowledge generated at the universities with a market orientation. The programme seeks to strengthen the roles of Basque universities as knowledge and technology suppliers.

The expected results are to extend stable cooperation frameworks with the Basque Country University System universities that incorporate other Basque Government Departments with a philosophy of financing by results; get universities to improve their knowledge and technology structures and its catalogue of services to firms, get that the companies will see universities as reference agents in knowledge and technology transference.

At a time when science, technology and knowledge are developing at dizzying speed, the need for cooperation between academia and firms for capacity building becomes increasingly evident. The Basque Government, concerned about it, promoted an organization called Tknika to foster communication and collaboration between academia, vocational training institutions, firms, and university research centres. Tknika fosters participatory, creative, collaborative teaching based on the latest methodological approaches and the most advanced techniques to successfully meet the demands for a highly qualified workforce.
In the particular case of the UPV/EHU the Strategic Plan (recently presented, June 2012) presents as one of its assets the relation with the community, being the mayor channels of communications the Basque Government, the Social Council, Business Associations and so on.

In the case of the University of Deusto, within the Strategic Plan 2014, the importance of the university commitment with the change and social transformation is highlighted. These changes are set up on the basis of academic excellence and a competent university community. It is especially relevant the University Social Responsibility commitment with a local and international approach. Other initiatives are the Social Affairs Committee that acts to prompt dialogue with institutional, business and social agents and the Office of Communication and Social Outreach that works to support four areas: strategy and reports, networking and fundraising, events and social outreach and digital identity and media.

Some of the results of the University of Deusto collaboration with the region are: development of different employment agreements with the Basque Government, pluriannual framework agreements with the regional and city council of Basque capital cities (Bizkailab project, that envisions creating an R&D innovation and transfer pole by collaboration and co- creative work between the university and institutions and researchers) , promotion of framework agreements with outstanding firms as Santander Bank, Kutxabank, BBVA, Telefonica, Iberdrola and joint actions with the main Basque and Spanish charity organisations (Caritas, ONCE, Etorkintza).

Mondragon University is firmly involved in regional capacity building. The first step is to be established in those locations where there is a convergence of interest with local stakeholders, constituting powerful aggregations with common objectives. In the beginning of the century, Mondragon began an ambitious project called Mendeberri, the development of the university own pedagogic model. Being aware of the importance of being deeply linked to the social, institutional and business world began the Collaborative R&T model, focused on transference and in the prediction of which research lines will be required by firms in a foreseeable future. This model is used by more than one dozen of Basque leading companies, considering it as an effective and real extension of their always insufficient human and material capability.

6.5 Human and financial resources management

The UPV/EHU follows the established regulations for public universities, presenting a regional dimension. The UPV/EHU structure is base on a multi- campus approach in order to be spread all over the Basque Country.

The Deusto strategic Plan 2014 raises the challenge of glocalisation, a balanced response to local and global issues. The challenges that are addressed are: teaching-learning competences and research, ensure a multi-lingual profile (Spanish- Basque- English- Other languages), technological competences and relational competences. Talent is also a key issue for the University of Deusto, not only retaining local talent but also attracting external talent in order to strengthen strategic areas of knowledge.

Each of the Mondragon University faculties retains its own autonomy which leads to its adaptation to the economic environment in which are locates with absolutely flexibility. Each

faculty has a Dean for Academic issues and a general Director. The general Director is the maximum responsible of management and of the fulfilment of the established objectives in the managements plan, taking into account the common strategic framework adopted democratically within the Mondragon University.

Regarding financial resources, the UPV/EHU is a public body that is completely funded by public sources. Being a private university, University of Deusto funding comes mainly from students' fees. Together with the students' fees, revenues from research and transfer and continuing education are playing an increasingly important role. The programme Contract signed with the Basque Government, the participation in the Basque Innovation Fund, the joint activities with the Biscay Regional Council and the agreements with the Santander bank- Kutxabank- BBVA also have to be considered.

The Deusto fundraising is base in four corner pillars: scope and diversification of the strategic alliances, long term stability (4-5 years), sufficient financial resources to reach the goals set and dynamic collaboration and co creation between the sponsors and the university.

Mondragon University funds come form: students' enrolment non- formal training (professional training), competitive research projects, contracts with firms, and the Framework programme signed with the Basque Government. The funds coming from this Framework programme only represents the 13% of the total budget of the university in 2011-2012. The rest of the items are the result of the activity of fundraising in a fully competitive context.

6.6 Creating a new organization culture

Regarding the new organization culture each of the three universities that composed the HEIs in the Basque Country have a different approach.

The UPV/EHU considers that its new initiative Euskampus represents a new organisational culture focused on international excellence and regional implication. This initiative is firmly backed not only by the University but also by the Basque Government and other public and private important institutions.

The University of Deusto understand the university academic excellence in teaching and research as the enabler to make a commitment socially responsible and sustainable innovation with transnational approach. The Deusto Educational Model is based on teaching- learning of knowledge, competences and values in a model which is interwoven with the Basque social environment. This organisation culture is presented in the Tuning project (developed in collaboration with the Groningen University) that encourages contracting parties, social agents, academic staff and students to become involved in designing syllabuses, internships, undergraduate or Master's degree. This model is operating on every continent.

The Mondragon University DNA is based on aspects such as results orientation, efficiency, costumer orientation, collaboration with society and so on. The University faculties have always been much closed to the business world and it is because of that that business management tools are continuously applied to the Mondragon University. The quality system is assurance by the ISO 9001:2000, after that the faculties adopted the EFQM model as management model. The international approach is an asset. The university has agreements with 131 universities in 29 countries. The Mondragon University is also involved in an ambitious project related with the transference of the Mondragon University model to several universities in Latin America countries.

Finally, each of the universities has a point of view about the importance of the university international rankings. The UPV/EHU is aware of its position and several studies and proposals area being carried out in order to improve the university performance.

In the case of the University of Deusto it has been considered that the university efforts are not centred on holding a top spot in generic rankings because of the size and limited resources. The University has a firm commitment to specialization and developing universality on specialised human scale reorganised internationally on sectoral rankings. Two strategic poles are being

developed: economic development and social development. The Aristos Campus Mundus pursues the aim of collaboration and sharing challenges and increasing chances of success though the aggregation project with other universities.

Mondragon University is an unusual university with respect to the usual prototype both in public and private, both nationally and internationally. This university does not fit well in the criteria used in the elaboration of the university rankings, since the Mondragon University mission and vision differs substantially from the spirit that lies behind the criteria's that rankings are based on.

7. CONCLUSIONS: MOVING BEYOND THE SELF- EVALUATION

7.1 Lessons to be learned from the self- evaluation process

The Basque HEI system has increasingly grown during the last years through the development of new universities and different initiatives concerning education in different fields. There is a strongly networked society with regional identity; the university compromise with the region has also steadily grown, generating a truly engagement with the region development. The aspects to highlight are the following.

Firstly, the Basque University System, composed by three universities, is complemented by a wide range of scientific actors, constituting a strong environment for high quality research and international competitiveness together with a feasible framework for knowledge transference. It is worth mentioning the Basque Government and other public and private institutions commitment to make significant improvements concerning science in Euskadi, plus the growing effort in improving collaboration between all Basque Innovation System actors. The system counts with an array of mechanisms of different nature and scope for transference, although in some aspects results are far from optimal.

Secondly, there is a strong commitment of the public sector (Basque Government) to ensure the quality and sustainability of the Basque HES. This compromise is more evident with the public university, UPV/EHU, but also reaches the other private universities in the system, setting objectives and providing coherence to it. The University Plan and the Contract Programmes signed with the universities in its framework strive to incentivise the HES to adapt to the new challenges by setting clear objectives, indicators, and goals (and mechanisms of evaluation) in line with the regional and global needs of the society.

Thirdly, the Basque HES offers a variety of higher vocational training and university graduate and postgraduate degrees that allow a high percentage of the residents in the Basque region to pursue higher education studies. The industrial character of the Basque economy partly determines the prevalence of technical studies and the relative important of vocational training. The transition to the EHEA is bringing important changes to the way in which students learn and are taught at HEIs, changing the focus to an integral student formation base on capabilities and more in contact with the labour market.

Fourthly, the Basque HEI system is particularly concern of their definitive role for the Basque society as knowledge and culture generator being social inclusion and solidarity intrinsic values to the Basque universities. It is positive that Basque universities will join to ongoing projects advocated to put into perspective the role of arts in the configuration of a learned and educated society.

Fifthly, HEIs has a strong commitment with the responsible education concern about cultural heritage, language and gender, contributing to the construction of a Basque society increasingly cohesive. It is remarkable that the three universities pursue activities related to Corporate Social responsibility, gender equality and inter-culturalism.

Nevertheless, there are specific elements that still require a great deal of good will and commitment and much effort of awareness in the academic, social and political sector. On the one hand, the collaboration and cooperation between the universities, private and public institutions and business has to be improved; the technology transfer and diffusion to many SMEs from Universities have also to be improved.

On the other hand, and taking into account that some experiences have successfully happened, there is little flexibility in the courses offered, specially for permanent education and little collaboration with stakeholders to generate courses and design teaching methods. Other relevant aspect to work in is the reduced mobility of students and professors and the shortage of actions oriented to talent attraction and retention. Those are particularly important aspects in the globalization environment together with the fact of the growing brain drain due to unemployment.

Finally, there is a lack of a clearly identification of the Basque regional challenges and needs to be met by the Basque HEIs. The Basque HEI has to develop initiatives and activities with a clear focus on lines of action in order to improve society concern about culture, environment, and social cohesion, taking a leadership role. However the Bologna process and consequent adaptation to the EHEA will promote important changes in the way students learn and are taught and in the Basque HEIs structure.

7.2 Potentialities and problems, opportunities and threats for increasing the contribution that HEIs make to the region (SWOT)

Strengths	Weaknesses
•Strongly networked society with regional identity •Powerful institutional support system •University Plan that ensures stable funding to the HES (especially, to the UPV/EHU). •Public funding based on objectives (Contract Programmes). •University System with the highest number of doctoral programs with an excellence mention in Spain •Scientific Excellence Research groups •Powerful institutional support system •Infrastructure of research and technology centres and parks •Highly positive trend in R&D intensity •Educated labour force •High level of scientific research in some specific areas •Increasing involvement in knowledge transfer •Existence of developed interface infrastructures and networks •Successful programmes for attracting scientists •High percentage of the population with higher education •Relative importance of the higher vocational training •Close relation between vocational training and labour market •Strong tradition of some innovative teaching experiences: work study programmes. •Wide range of activities related with culture spread •Strong commitment with Basque culture and heritage • Strong commitment with environmental concerns •Concern about the need to develop a strong network of educational institutions focused on music and scenic arts •Spread cultural activity to the society •Collaboration with the Government in	•Limited scientific capability •Universities poorly connected to each other •Lack of technology transfer and diffusion to many SMEs •Financing and management of scientific and research infrastructures •Mechanisms for inter- departmental planning and coordination of science policy •Low percentage of GDP invested in universities R&D&i •Few incentives for researchers to be engaged in knowledge transfer activities •Lack of technical staff to support research •Insufficient cooperation and networking among technology transfer intermediaries •Lack of homogenous statistical data to analyse knowledge transfer •Reduced mobility of students and professors •Little flexibility in the courses offered, specially for permanent education •Little collaboration with stakeholders to generate courses and design teaching methods. •Lack of collaboration between the HEIs •Lack of collaboration between the HEIs and business sector in the development of activities for the promotion of social cohesion and environmental issues •Lack of collaboration between HEIs and other private and institutional actors in the generation of cultural activities •Link with the sanitary and biomedical research can be better •Lack of leadership in many social areas in which the HEIs have the knowledge and the skills

cultural and environmental issues •Research and research centres focused on environmental issues	
Opportunities	Threats
•University 2015 Strategy. International Excellence Campus: Euskampus •Strengthening public and private research system •Align research with the needs of the Basque competitive sectors. •Increasing EU funds for research •Growing importance of partnerships in R&D projects •Capitalise on new BERCs •Better positioned to exit crisis than other Spanish regions •Greater involvement of actors not at the RVCTI •The Bologna process and consequent adaptation to the EHEA that promotes changes in the way students learn and are taught •Stronger collaboration between agents: universities, vocational training centres, providers of non-formal education and other stakeholders •Growing network of arts schools which facilitate excellence •Adaptation to new behaviours in culture, social cohesion and environment •Improve cooperative initiatives among universities •Establish routes for a public- private cooperation for the development of cultural projects. •Activities related with open education (UPV/EHU programmes for seniors) •Develop and encourage connections between universities and the new music and arts educational institutions •Collaboration with creativity and cultural industry in the development of artistic initiatives •Develop joint initiatives for promoting environmental awareness	•Path dependency of public policy in STI •Growing competition to attract Spanish and EU funding sources for research and innovation •Increasing financial uncertainty of the Support of the Spanish government in R&D and innovation policy •Growing competition to attract talent •Brain drain due to unemployment •Economic sustainability of the RVCTI •Increasing global competition to attract talented students. •Demographic trends •Financial restrictions to innovate •Inflexibility in most of the HEIs to adapt to social changes •Develop initiatives and activities with a clear focus on lines of action in order to improve society concern about culture, environment, social cohesion

7.3 Discussion of the region's vision for future policy

The Basque Country faces different challenges regarding the economic crisis and the Bologna process. The HES, the firms, the Innovation System and several agents related with science, technology and innovation are key elements to turn this situation around.

The Basque self- evaluation report has presented the main characteristics of the Basque HEI, together with the main strengths and weaknesses concerning aspects as the labour market, innovation and social, cultural and environmental development. The main conclusions from this analysis related to the vision for future policy are the following.

To begin with, the role of the universities is important in different aspects of the regional development, because of that is included in such unexpected policies as health and business competitiveness. This inclusion in the Basque government planning instruments represents a good opportunity to highlight the HEI's involvement in regional's development and its commitment with society transformation.

Secondly, the development of universities social councils ensures the participation of the Basque society at the universities. In fact the Social Council acts as liaison between the university and society conveying to university the society concerns and needs, and leading to society the universities capacities, concerns and needs.

Thirdly, the assessment and monitoring represents a cornerstone of the Basque HEIs and an aspect to be included in future policy. The impact of universities activities over employment, production, income, productivity and salaries in the Basque economy together with the tax collection and Basque language dissemination are important factors to be considered.

Finally, the character of each university enriches the regional development. Each university has to continue being autonomous to develop its own identity and idiosyncrasy through the development of their own strategies and objectives, these will lead to have a strong HEI with different approaches and perspectives.

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APPENDIX I. LIST OF UNDERGRADUATE AND GRADUATE COURSES OFFERED IN THE BASQUE UNIVERSITY SYSTEM

UNIVERSITY OF THE BASQUE COUNTRY (UPV/EHU)

1. List of undergraduate programmes by campus and Faculty

CAMPUS OF ARABA

Faculty of Pharmacy
- BSc in Environmental Sciences
- BSc in Food Science and Technology
- BSc in Pharmacy
- BSc in Human Nutrition and Diet

Faculty of Arts
- BA in Philology. Spanish Studies
- BA in Philology. French Studies
- BA in Philology, German Studies
- BA in Classical Philology
- BA in English Studies
- BA in Basque Studies
- BSc in Geography and Planning
- BA in History
- BA in the History of Art
- BSc in Translation and Interpreting

Faculty of Physical Activity and Sport Science
- BSc in Physical Education and Sports Sciences

Business School, Vitoria-Gasteiz
- BA in Business Administration and Management

School of Social Work
- BA in Social Work

Teacher Training School, Vitoria-Gasteiz
- BA in Nursery Education
- BA in Primary Education

School of Engineering, Vitoria-Gasteiz
- BSc in Computer Management and Information Systems Engineering
- BSc in Electrical Engineering
- BSc in Industrial Electronic Engineering and Automatics
- BSc in Mechanical Engineering
- BSc in Industrial Chemical Engineering
- BSc in Topography and Geomatics Engineering

Teaching Unit Of The Faculty Of Medicine And Dentistry, Vitoria-Gasteiz
- BSc in Medicine

Nursing School, Vitoria-Gasteiz (Centre Affiliated)
- BSc in Nursing

CAMPUS OF BIZKAIA

Faculty of Fine Arts
- BA in Fine Arts
- BA in Conservation and Restoration of Cultural Heritage
- BA in Creation and Design

Faculty of Medicine and Dentistry
- BSc in Medicine
- BSc in Dentistry

Faculty of Science and Technology
- BSc in Chemical Engineering

- BSc in Electronics Engineering
- BSc in Biology
- BSc in Biotechnology
- BSc in Biochemistry and Molecular Biology
- BSc in Physics
- BSc in Geology
- BSc in Mathematics
- BSc in Chemistry

Faculty of Social and Communication Sciences
- BA in Political Science and Public Management
- BA in Audiovisual Communication
- BA in Journalism
- BA in Advertising and Public Relations
- BA in Sociology

School of Labour Relations Studies
- BA in Labour Relations and Human Resources

Nursing School, Leioa
- BSc in Nursing

Faculty of Law, Bizkaia Section
- BA in Law

Faculty of Economics and Business Studies
- BA in Business Administration and Management
- BA in Economics
- BA in Finance and Insurance
- BA in Marketing Management and Marketing Research
- BA in Taxation and Public Administration

Higher Technical School of Engineering, Bilbao
- BSc in Environmental Engineering
- BSc in Organization Engineering
- BSc in Industrial Technology Engineering
- BSc in Technical Telecommunications Engineering

Business School
- BA in Business and Trade Management

School of Technical Industrial Engineering, Bilbao
- BSc in Electrical Engineering
- BSc in Industrial Electronic Engineering and Automatics
- BSc in Computer Management and Information Systems Engineering
- BSc in Mechanical Engineering
- BSc in Industrial Chemical Engineering

Teacher Training School, Bilbao
- BA in Social Education
- BA in Nursery Education
- BA in Primary Education

School of Technical Mining and Public Works Engineering
- BSc in Mining and Energy Engineering
- BSc in Civil Engineering

Higher Technical School of Nautical Studies
- BSc in Nautical Engineering and Maritime Transport
- BSc in Maritime Engineering

CAMPUS OF GIPUZKOA

Faculty of Chemical Sciences

- BSc in Chemistry

Faculty of Computer Engineering
- BSc in Computer Management and Information Systems Engineering
- BSc in Computer Engineering

Faculty of Law
- BA in Law
- BA in Criminology

Faculty of Philosophy and Education Science
- BA in Social Education
- BA in Philosophy
- BA in Pedagogy
- BA in Social Anthropology

Faculty of Psychology
- BA in Psychology

Higher Technical School of Architecture
- BSc in Architecture

Business School, Donostia-San Sebastian
- BSc in Business Administration and Management

Teacher Training School, Donostia-San Sebastian
- BA in Nursery Education
- BA in Primary Education

Polytechnic School, Donostia-San Sebastian
- BSc in Civil Engineering
- BSc in Electrical Engineering
- BSc in Construction Engineering
- BSc in Industrial Electronics and Automatics Engineering
- BSc in Mechanical Engineering
- BSc in Industrial Chemical Engineering

Nursing School, Donostia-San Sebastian
- BSc in Nursing

Teaching Unit of the Faculty of Medicine and Dentistry, Donostia-San Sebastian
- BSc in Medicine

2.Master programmes

97 Master's, 12 in English and 4 in Basque in the following areas:
•Environment and Natural Resources
•Mathematics
•Physics, Chemistry And Materials
•Space Science and Technology
•Biomedicine, Quality of Life and Health
•Information and Communications Technologies
•Engineering and Technology
•Architecture
•Journalism and Communication
•Sociology of Law
•Sociology and Political Science
•Law
•Feminism, Gender and Equal Rights
•International Studies and Cooperation On Development
•Innovation and Knowledge
•Human Resources
•Economics and Management
•Education

•Psychology
•Philosophy
•History
•Language, Literature and Linguistics
•Arts

3.Doctoral programmes by field

71 Doctoral Programmes, 32 awarded with the Distinction of Excellence from the Spanish Ministry of Education.

Notes:

- (*) With Mention towards Excellence from the Spanish Ministry of Education
- (**) With positive evaluation for the Mention towards Excellence by the Spanish Evaluation Agency ANECA

Environment and Natural Resources

- Environmental Agro-biology (*)
- Biodiversity and Ecosystem Functioning and Management (**)
- Environmental Contamination and Toxicology (*)
- Quaternary: Environmental Change and Human Ecological Footprint (**)
- Marine Environment and Resources (*)

Mathematics

- Mathematics (**)

Physics, Chemistry and Materials

- Quantum Science and Technology
- Materials Science and Technology
- Materials Physics and Technology (*)
- Laser Applications in Chemistry (Quimilaser)
- Physics of Nanostructures and Advanced Materials (*)
- Applied Chemistry and Polymeric Materials (*)
- Synthetic and Industrial Chemistry (*)
- Theoretical Chemistry and Computational Modelling (*)

Space Science and Technology

- Space, Science, and Technology

Biomedicine, Quality of Life and Health

- Forensic Analysis (*)
- Molecular Biology and Biomedicine
- Food Quality and Safety (*)
- Development, Evaluation and Rational use of Medicines (**)
- Pharmacology
- Immunology, Microbiology and Parasitology
- Biomedical Research
- Neurosciences (*)
- Nutrition and Health (**)
- Public Health

Information and Communication Technologies

- Language Analysis and Processing (**)
- Control, Automation and Robotics Engineering
- Computer Engineering (*)
- Advanced Electronic Systems
- Mobile Network Information and Communication Technologies (*)

Engineering and Technology

- EURO MPM-Project Management
- Photovoltaic and Microelectronics

- Environmental Engineering (*)
- Advanced Materials Engineering
- Renewable Materials Engineering (*)
- Engineering of Chemical Processes and Sustainable Development (*)
- Mechanical Engineering (*)
- Thermal Engineering (*)
- Integration of Renewable Energy Sources into the Electricity Grid

Architecture
- Architecture, Town Planning and Heritage

Journalism and Communication
- Social Communication

Sociology of Law
- Sociology of Law

Sociology and Political Sciences
- Political and Administrative Science
- Models and Areas of Research in Social Sciences (*)
- Nationalism in the 21st century

Law
- Fundamental Rights and Public Authorities (*)
- Political Integration and Economic Union in the European Union
- Democratic Society, State and Law

Feminism, Gender and Equality
- Feminist and Gender Studies

International Studies and Cooperation on Development
- International Studies (*)
- Studies on Development (*)

Economics and Business
- Banking and Quantitative Finances (*)
- Business Management from an Innovation and Internationalisation Perspective
- Economics: Economic Analysis Tools (*)
- Economic Analysis and Policies (**)
- Globalisation: Social Processes and Economic Policies
- Economic Integration (*)

Education
- Science of Sport and Physical Activity
- Psycho-didactics: Psychology of Education and Specific Didactics
- Technology, Learning and Education

Psychology
- Psychology: Individual, Group, Organization and Culture (*)

Philosophy
- Philosophy in a Global World
- Philosophy, Science and Values (*)

History
- Europe and the Atlantic World: Power, Culture and Society (*)
- Contemporary History (*)

Language, Literature and Linguistics
- Cognitive Science and Humanities: Language, Communication and Organization
- Linguistics and Basque Philology
- Language Acquisition in Multilingual Settings (LAMS) (*)
- Linguistics (*)
- Comparative Literature and Literary Studies (*)

Art
- Art Research and Creation

UNIVERSITY OF DEUSTO (DU)

1.List of undergraduate programmes by campus

BILBAO CAMPUS

- BA in Law
- BA in Law + Specialism in Economics
- BA in Business Administration
- Business Administration + Leadership Development Programme (Deusto Degree)
- BA in Psychology
- BA in Social Education
- BA in Primary Education (Specialism in a Foreign Language and Special Educational Needs)
- BA in Social Work
- BA in Tourism
- BA in Modern Languages and Management
- BA in Modern Languages (English Studies, Hispanic Studies, Literary Studies and Linguistics Studies)
- BA in Basque Philology
- BA in Humanities (History; Philosophy and History of Religions)
- Baccalaureatum in Theology
- BSc in Computer Engineering
- BSc in Industrial Technology Engineering
- BSc in Industrial Electronics and Automation Engineering
- BSc in Industrial Management Engineering
- BSc in Industrial Technology Engineering
- BSc in Audiovisual Systems Engineering
- BSc in Telematics Engineering
- Double Degree in Business Administration + Law
- Double Degree in Business Administration + Industrial Technology Engineering
- University Diploma in Executive Secretarial Studies (Deusto Degree)
- University Diploma in Culture and Solidarity (Deusto Degree)

DONOSTIA-SAN SEBASTIAN CAMPUS

- Degree in Business Administration
- Bachelor's Degree in Communication
- BA in Tourism
- BA in Social Work
- Double Degree in Business Administration + Law
- Double Degree in Business Administration + Computer Engineering

2.Master and Doctoral Programmes

64 degrees, divided into 8 specialist areas, 33 of which are official master's degrees adapted to EHEA, 7 Erasmus Mundus degrees, 31 own degrees awarded by Deusto, some of which can be studied online, and 10 PhD degree programmes.
Areas:

- Economics and Business Administration
- Human and Social Sciences
- Law
- Education
- International and intercultural studies
- Engineering
- Interdisciplinary social intervention
- Psychology

MONDRAGON UNIVERSITY (MU)

1.List of undergraduate programmes by Faculty

School of Engineering

- Mechanical Engineering
- Industrial Design Engineering and Product Development
- Industrial Engineering
- Industrial Electronics Engineering
- Computer Engineering
- Telecommunications Systems Engineering

School of Business

- Administration and Management
- Entrepreneurial Leadership and Innovation

Faculty of Humanities and Education Sciences

- Audiovisual Communication
- Childhood education.
- Primary education.

Faculty of Food Science

- Gastronomy and Culinary Arts

2.List of Master Programmes, by faculty

School of Engineering

- Master in Strategic Design of Products and Associated Services
- Master in Business Innovation and Project Management
- Master in Industrial Engineering
- Master in Embedded Systems
- Master in Energy and Power Electronics

School of Business

- Master in Business Management Co
- MBA - Master in Business Administration
- Master in Accounting and Financial Management
- Master in Digital Marketing
- Master in Business Administration Building and Active Tourism

Faculty of Humanities and Education Sciences

- Master in Teaching Enabling the Exercise of Professions Teachers of Secondary Education and Secondary Education, Training and Language Teaching
- Master in Innovation Project Development Methodology in Educational Institutions (BERRIMET)
- Master in Education in multicultural and multilingual contexts (EKOMU)

3.List of Doctorate programmes:

- Engineering
- Entrepreneurship, cooperatives, and management innovation
- Educational innovation and intervention

APPENDIX II. UNDERGRADUATE ENROLMENT DATA BY UNIVERSITY AND BY FIELD

Table AII.1 Undergraduate enrolment data by university and field

UPV/EHU	Field	Enrolments	New enrolments	Graduates	Drop-out rate
2006/2007	Social and Law Sciences		4809	3360	
	Technical Studies		2816	1998	
	Humanities		726	505	
	Health		699	855	
	Experimental Sciences		665	508	
	Total	44896	9715	7226	26.0%
2007/2008	Social and Law Sciences		4667	3278	
	Technical Studies		2463	1958	
	Humanities		747	493	
	Health		743	887	
	Experimental Sciences		680	434	
	Total	43523	9300	7050	
2008/2009	Social and Law Sciences	18960	4515	3230	15.4%
	Technical Studies	13555	2439	2010	24.0%
	Humanities	3300	712	437	18.8%
	Health	3454	795	839	7.5%
	Experimental Sciences	2779	584	398	20.4%
	Total	42048	9045	6914	17.8%
2009/2010	Social and Law Sciences	19200	4576	3444	
	Technical Studies	13155	2434	2018	
	Humanities	3383	735	474	
	Health	3579	769	910	
	Experimental Sciences	2709	620	356	
	Total	42026	9133	7202	
2010/2011	Social and Law Sciences	18736	4059	3163	
	Technical Studies	12167	2329	1454	
	Humanities	3545	890	446	
	Health	4076	1099	936	
	Experimental Sciences	2682	642	307	
	Total	41206	9019	6306	
DU	**Field**	**Enrolments**	**New enrolments**	**Graduates**	**Drop-out rate**
2006-7	Social and Law Sciences	4945	1220	993	3.2%
	Technical Studies	2292	600	651	3.6%
	Humanities	832	196	174	5.6%
	Total	8069	2016	1818	3.5%
2007-8	Social and Law Sciences	4800	1124	894	4.0%
	Technical Studies	1994	440	709	3.2%
	Humanities	736	146	165	5.7%

	Total	7530	1710	1768	3.9%
2008-9	Social and Law Sciences	4696	1023	958	4.7%
	Technical Studies	1591	399	533	3.2%
	Humanities	670	149	152	6.4%
	Total	6957	1571	1643	4.5%
2009-10	Social and Law Sciences	4621	1139	1048	4.0%
	Technical Studies	1361	351	463	3.9%
	Humanities	579	108	150	6.0%
	Health	120	120	0	0.0%
	*PCEO	150	149	0	0.0%
	Total	6831	1867	1661	4.0%
2010-11	Social and Law Sciences	4430	1089	1064	4.7%
	Technical Studies	1139	342	403	5.0%
	Humanities	545	148	127	5.9%
	Health	239	130	0	0.0%
	*PCEO	289	163	0	0.0%
	Total	6642	1872	1594	4.5%
MU	**Field**	**Enrolments**	**New enrolments**	**Graduates**	**Drop-out rate**
2006/20007	Social and Law Sciences	1299			7.2%
	Technical Studies	2028			6.4%
	Total	3327	658		6.7%
2007/2008	Social and Law Sciences	1385			6.4%
	Technical Studies	1863			5.0%
	Total	3248	687		5.6%
2008/2009	Social and Law Sciences	1445			4.8%
	Technical Studies	1658			4.0%
	Total	3103	645		4.4%
2009/2010	Social and Law Sciences	1463			6.0%
	Technical Studies	1568			4.5%
	Total	3031	640		5.2%
2010/2011	Social and Law Sciences	1523			3.9%
	Technical Studies	1495			6.0%
	Total	3018	665		5.0%

Note:* PCEO: Combined programmes for official studies (includes the Double Degree in Business Administration & Law, Double Degree in Business Administration & Industrial Technology Engineering, and Double Degree in Business Administration & Computer Engineering).

Source: Data provided by the three universities.

APPENDIX III. RESEARCH SPECIALISATION (BY FIELD) IN THE BASQUE UNIVERSITY SYSTEM.

UPV/EHU

The UPV/EHU has had during the period 2007-2011 a total of 409 research groups that were active at some point during those years. The activity of these groups is financed by specific funds from the Basque Government and/or the own university, in addition to other funds that could come through public or private projects.

There is a clear specialization in Experimental Sciences in terms of the number and in the amount of funding that they obtained.

Table AIII.1. Research groups UPV/EHU 2007-2011, by field

Field	N. research groups	€ Assigned (in thousands)	Average assignment, by group
Health	38	5,823 €	153,237 €
Experimental Sciences	188	30,591 €	162,718 €
Social and Law Sciences	80	6,103 €	76,288 €
Technical Studies	50	8,440 €	168,800 €
Humanities	53	4,335 €	81,792 €
Total	409	55,292 €	135,188 €

Source: UPV/EHU

In terms of scientific production, 50% of the total number of articles published between 2003 and 2008 correspond to the areas of Physics, Material Science, Chemistry, and Engineering (data from the report "Scientific research with international visibility at the UPV/EHU" elaborated by the Research Vice dean Office in 2010).

UNIVERSITY OF DEUSTO

The University of Deusto had 39 research groups registered in 2011. Of those, 15 have been recognised by the Basque Government and receive finance from it for further development.

Table AIII.2. Research groups DU 2011, by field

	N. research groups
Social and Law Sciences	17
Technical Studies	6
Humanities	16
Total	39

Source: University of Deusto

The fields of specialization in terms of number of groups lie in Social and Law Sciences and Humanities. Specially productive in terms of scientific publications are the research groups in the area of Psychology.

MONDRAGON UNIVERSITY

The research activity of Mondragon is divided into 5 units of R&D, based on three main areas of knowledge developed by the three departments that make up the university:

- Area Technology (Technical College)
- Area Business Management (Business School)
- Department of Education (Faculty of Humanities and Education)
- Communications Department (Faculty of Humanities and Education)

- Area of Cooperation (School of Humanities and Education)

Each faculty/school has a coordination committee of R&D, made by the Director of R&D in the faculty/school (in the case of the Polytechnic School also the Director of Innovation), the lines of research coordinators and the heads of department. There is also a R&D Committee of Mondragon, composed of the Vice President of R&D, the 3 Directors of R&D of the faculties/schools and the Director of Innovation at the Polytechnic School.

The number of research groups has steadily increased in the last five years from 8 in the academic year 2006/2007 to 16 in 2010/2011.

Table AIII.3. Research groups MU, by field

	N. research groups
2006/2007	8
2007/2008	9
2008/2009	10
2009/2010	13
2010/2011	16

Source: Mondragon University

The areas of specialisation of the research groups are fluid mechanics, processes for material's shaping, high performance machining, embedded systems, open business, entrepreneurship, internationalisation, socially responsible business models, multicultural and multilingual societies, inclusive education, and communication.

APPENDIX IV. CHARACTERISTICS OF THE BASQUE VET SYSTEM

Table AIV.1 Offer of higher VET degrees by field and province.

	Araba	Bizkaia	Gipuzkoa	**Total**	% Total	% Araba	%Bizkaia	% Gipuzkoa
Administration and management	7	21	19	**47**	11.0%	14.9%	44.7%	40.4%
Socio-Cultural Services	5	20	11	**36**	8.4%	13.9%	55.6%	30.6%
Electricity and electronics	8	32	23	**63**	14.8%	12.7%	50.8%	36.5%
Mechanical Manufacturing	7	22	28	**57**	13.3%	12.3%	38.6%	49.1%
ICT	5	21	12	**38**	8.9%	13.2%	55.3%	31.6%
Health	3	15	7	**25**	5.9%	12.0%	60.0%	28.0%
Installation and Maintenance	7	9	12	**28**	6.6%	25.0%	32.1%	42.9%
Commerce and marketing	5	12	10	**27**	6.3%	18.5%	44.4%	37.0%
Building and Civil Works	2	9	4	**15**	3.5%	13.3%	60.0%	26.7%
Physical and Sports Activities	2	5	4	**11**	2.6%	18.2%	45.5%	36.4%
Hostelry and Tourism	3	10	4	**17**	4.0%	17.6%	58.8%	23.5%
Transportation and Vehicle maintenance	2	6	2	**10**	2.3%	20.0%	60.0%	20.0%
Chemistry	1	7	3	**11**	2.6%	9.1%	63.6%	27.3%
Communication, Sound and Image	2	3	6	**11**	2.6%	18.2%	27.3%	54.5%
Graphic art	1	2	3	**6**	1.4%	16.7%	33.3%	50.0%
Personal Image	3	3	2	**8**	1.9%	37.5%	37.5%	25.0%
Maritime-fishery	0	1	3	**4**	0.9%	0.0%	25.0%	75.0%
Energy and water	1	1	1	**3**	0.7%	33.3%	33.3%	33.3%
Agricultural	2	1	1	**4**	0.9%	50.0%	25.0%	25.0%
Textiles, dressmaking and leather	0	1	1	**2**	0.5%	0.0%	50.0%	50.0%
Timber and furniture and cork	0	0	2	**2**	0.5%	0.0%	0.0%	100.0%
Food Industry	0	0	0	**0**	0.0%			
Security and Environment	1	1	0	**2**	0.5%	50.0%	50.0%	0.0%
TOTAL	**67**	**202**	**158**	**427**	**100.0%**	**15.7%**	**47.3%**	**37.0%**

Note: Shadowed cells show a relative specialisation on the particular field.
Source: Basque Government.

Most of the courses are offered in Basque language and in Spanish although there is a progressive number of courses that are being offered in English. The trilingual offer of courses started in 2007-2008 with one centre offering one course and will reach in the next academic year 15 centres with 25 courses offered in a combination of the three languages.

Table AIV.2 Offer of trilingual courses of higher VET

Year	Number of centres	Number of groups
2007/08	1	1
2008/09	3	5
2009/10	5	11
2010/11	5	14
2011/12	9	17
2012/13	15	25

Source: Basque Government.

The number of teachers for VET (medium and higher degrees) in public centres in 2010-2011 was of 2,410 (out of 42,058 for the whole of Spain) while in private centres amounted 1,270.

Table AIV.3. Labour market insertion of the 2010 promotion of higher VET graduates, by field.

	Unemployment rate	Occupation rate	Activity rate
Agricultural	31.6%	68.4%	70%
Maritime-Fishery	23.1%	76.9%	65%
Physical and Sports Activities	20.5%	79.5%	46%
Administration and management	29.9%	70.1%	71%
Graphic art	40.4%	59.6%	76%
Commerce and marketing	40.0%	60.0%	65%
Communication, sound and image	35.7%	64.3%	70%
Building and civil works	29.2%	70.8%	56%
Electricity and electronics	32.3%	67.7%	62%
Mechanical manufacturing	24.1%	75.9%	70%
Hostelry and tourism	30.3%	69.7%	63%
Personal image	18.4%	81.6%	58%
Food industry	40.0%	60.0%	56%
ITC	39.3%	60.7%	61%
Timber and furniture and cork	25.0%	75.0%	50%
Transportation and vehicle maintenance	28.8%	71.2%	75%
Installation and maintenance	31.7%	68.3%	66%
Chemistry	23.9%	76.1%	54%
Health	39.2%	60.8%	54%
Socio-cultural services	25.2%	74.8%	63%
Textile, dressmaking and leather	45.0%	55.0%	74%
Total	**30.4%**	**69.6%**	**64%**

Note: Data based on interviews made 9 to 12 months after obtaining the title.
Source: LANBIDE

APPENDIX V. CONTRIBUTIONS OF THE UNIVERSITIES TO CHAPTER 6

UNIVERSITY OF THE BASQUE COUNTRY (UPV/EHU)

6.1. Mechanisms to promote HEI's regional involvement

The UPV/EHU, as an institution under public law, has the Social Council as the structure of society participation in the university. The Social Council oversees the activities of HEI and acts as a link with the socioeconomic environment.

On the other hand, both the University as the Basque Government establish the necessary and appropriate mechanisms to achieve the objectives of commitment and response to the demands of the society. In this sense, the instruments provided by the Basque Government to promote the participation of HEIs in regional development, such as the University Plan, the Plan of Science and Technology, the Competitiveness Plan, and the Basque Council of Universities, in which HEIs are involved, provide the means and opportunities to achieve the objectives.

Moreover, as detailed below, the UPV/EHU has evolved and adapted to the requirements of the socioeconomic environment, establishing consistent mechanisms to respond to the society needs, being the project of reference the Campus of International Excellence Euskampus (CIS Euskampus). This project, led by the UPV/EHU together with the Foundation Donostia International Physics Center (DIPC) and TECNALIA-Technology Corporation, unites wills and shared efforts and capabilities to build an aggregation that allows simultaneous transmission and generation of high-quality knowledge transfer, evaluation and exploitation, becoming a reference model in its environment and a strategic grouping of international renown.

6.2. Promoting regional dialogue & joint marketing initiatives

The UPV/EHU is a university structured around three campuses (located in the three Basque provinces (Alava, Bizkaia and Gipuzkoa), constituting a multi-campus university, a fact which implies specific characteristics based on a decentralised organization and management. This organizational feature makes the UPV/EHU an institution close to the territory in which they are and their specific needs, contributing to the progress of the territory where the Campuses emerge as a scientific and technological reference.

In this territorial configuration, the Provincial Councils have their own resources to drive initiatives related to university activities, outside the Basque Government public financing. The Provincial Councils therefore favour specific policies for each campus, fostering a close relationship between regional institutions.

This close relationship with regional institutions takes the form of participation in various forums and working groups as may be the city's Strategic Plan Donostia-San Sebastian, in the strategic planning of the Provincial Council of Gipuzkoa. In the same line, the university is member of various associations and boards and of the Chambers of Commerce. The regional implication of the UPV/EHU is also evident through the relation with the institutions members of the Euskampus project (Technological Centres, University Hospitals, Technology Clusters, scientific and technological infrastructures, and Strategic Business and Technology Parks) with which there is a longstanding previous relation in the areas of specialisation of the Euskampus project.

In addition, the UPV/EHU, with the Euskampus project has been recognized as a Campus of International Excellence, with the qualification of potential to achieve high level of international excellence. The project Euskampus vision for 2015 is:

- to induce a process of economic transformation in the Basque Country, promoting a model in which research, innovation and creativity, internationalisation and the recruitment of talent play a role in improving productivity and the socio-economic and cultural environment;

- to be a reference of science and technology teaching in the Atlantic axis of Europe
- to be a reference model of territorial development and the search for solutions to the social, cultural and environmental aspects of the Basque Country.

Euskampus combines efforts and capacities to respond to the society demands and needs, by identifying the areas of specialization where strategic aggregation will reach the European and International leadership, being the strategic change in the organization and academic management in the UPV/EHU. It is in this line where transversal policies become a priority to reach the proposed targets; transversal policies such internationalization, talent acquisition and retention, and the trans-borders campus.

Ikerbasque, as an institution to attract talent of the Basque Government, works closely with the University. Currently, the main host institution of the actions taken by Ikerbasque to attract talent is the UPV/EHU, an activity that encourages domestic and international investments, now counting more than 66% of researchers in different assigned Ikerbasque research areas.

6.3. Evaluating and mapping the impact of the regional HES

The UPV/EHU has several tools to evaluate its activities in order to improve, to measure its impact in the regional development, and to render accountability to the society. Among them:

- As a first step, the UPV/EHU analysed with an independent agency its scientific production, in order to know and show the level and international visibility of the same, using rigorous and objective parameters recognised internationally. Furthermore, this study has been completed with the analysis of the number of theses defended, the university performance on calls for competitive research and the university performance in knowledge transfer to society. This map is the so-called map of research that was presented to the Governing Council on 29 April 2010.

- On the other hand, **Euskampus** establishes a framework of strategic collaboration among UPV/EHU, DIPC and Tecnalia and affiliate organizations, in areas in which the greatest synergies have been found in the knowledge generation and transfer, in order to meet the demands and needs of the society and its local environment. To do this, there has been a previous comprehensive study, general and by field, covering the following aspects: scientific publications with international visibility in terms of impact, participation in research projects and R&D&i; patent; qualified staff; technological infrastructures; and structures for the transfer and exploitation of knowledge generated.

- Furthermore, the report "Economic and social contribution of the UPV/EHU" was published in 2008. This first report has recently been updated and is an accounting of the activities of the UPV/EHU to the society that provides much of the financial resources.

- Quality of teaching is at the centre of the EHEA. From the UPV/EHU the programme DOCENTIAZ (in its third call) sets the bases for evaluating the teaching activity, oriented towards the professional development of the professors.

- Annually, Lanbide conducts a survey among graduates on their working lives. This is a study on the employability of the graduates of the University three years after graduation. It provides information on the activity rate, employment rate, unemployment rate, employment matching, and assessment of skills acquired at the university and its usefulness and value of the university among others.

- The financing model of the University has to guarantee transparency and management control of the public resources, according to the University Plan. Therefore, annually there is a measurement of the control indicators included in the University Plan that allows following the university activity and the degree of fulfilment of the compromises acquired between the UPV/EHU and the Basque Government. For the period 2011-2014 these compromises are structured in five contract programmes: formal education,

non-formal education, research, transference, and equity, efficiency and social projection.

6.4. Institutional capacity building of the regional involvement

The direction and mission of the university must be aligned with the social dynamics of each period. Just as the world has changed dramatically in recent decades, the general curriculum of the XXI century university must also evolve to suit the demands of an ever changing society and characterized by uncertainty.

The cooperative and dynamic teaching-learning model, centred in the students (**Ikaskuntza kooperatiboa eta dinamikoa (IKD))** is the UPV/EHU own educational model, built to increase the competitive value of the educational offer and to differentiate the UPV/EHU from the rest of universities in the EHEA.

The model is developed in four directions:

- the training of those involved in teaching activities in order to foster appropriate professional development;
- curriculum development, aimed at enhancing employability, and responsible with the social environment. This development is made through internships, collaboration with social initiatives, social networks, relationship with firms, and mobility programmes that foster international experience and cooperation of the students and imply a territorial and social development.
- institutional policies that encourage cooperation among those involved in teaching, in a climate of confidence and dynamism.
- the promotion of learning through active methodologies that invites students to become architects of their own learning, improving their employability and becoming active elements in the governance of the university.

In addition, the University Strategy 2015 aims at the modernization of universities and in this context that last year 2011, the UPV/EHU was recognised as Campus of International Excellence.

Euskampus is set up as a blueprint for the transformation of Basque society and as a driving force of scientific and technological progress. We want this Alliance to constitute the cornerstone of change in social values and attitudes towards the development of a new socio-economic model, based on knowledge, innovation and creativity, and social responsibility. In essence, this project stimulates the integration of knowledge and innovation in the value chain.

There are three areas of specialization in which Euskampus aspires to international recognition: Sustainable ecosystems and Environmental Technologies; Innovative processes and New Materials; and Healthy Ageing and Quality of Life. The implementation of the planned strategic measures in these areas will allow Euskampus to more adequately respond to the needs of society, while increasing the country's capacity for wealth generation.

The international conception of this Project is also reflected in cross-border collaboration. The agreement signed with the Bordeaux University campus of Excellence (France) establishes plans for a cross-border campus which aspires to becoming a benchmark in education and research for the international university community, as well as an element of attraction for a more technology-intense and creative science industry in the Euro-Atlantic Area.

Euskampus therefore constitutes a strategic Alliance that brings together efforts and capabilities, in other words, it is a Community of Knowledge Hubs, consolidating a project of international excellence under the motto "One University, One Country, One Campus".

In order to articulate the Euskampus project Euskampus Fundazioa was set with the mission of developing the objectives and actions set out in its strategic plan. Among the actions are the following:

- The consolidation of an academic campus of international dimension that presents to the outside world a model of quality for public higher education and integrated into the knowledge society

- To encourage and channel cooperation between different agents of the Basque Country (entities of the Basque Science, Technology and Innovation, enterprises, social partners, etc..) and between them and international actors in the fields of high-level training, research, valorisation and transfer of knowledge, for the benefit of society as a whole in an international context

- The international promotion of the Basque Country as a centre of science, technology, innovation, creativity and talent, seeking to establish stable partnerships with international reference entities by encouraging the mobility of people and the creation of joint programs for training, research and innovation

- The attraction and retention of talent from anywhere in the world, providing the resources necessary for their reception, integration and performance

6.5. Human and financial resources management

The UPV/EHU as a public institution, obtains it financial resources as current and capital transfers set by the Basque Government, the amounts included in the Basque University Plan, income from academic services, revenues from public and private transfers, and income from the contracts according to the article 83 of the Organic Law of Universities (LOU). The origin of funds for the development of the research activity is mainly regional, 50%, about 20% coming from state funds, 16% of direct contracts (via OTRI and Euskoiker), almost 8% is self-financed, and 6% has an international origin, stemming mostly from projects and research groups.

6.6. Creating a new organisation culture

The European Strategy University 2020 and more closely the Spanish University Strategy 2015, sets out a programme for the modernization of the University who identifies as one of its objectives to have a university internationalized and competitive. The consecution of this objective requires taking some actions and the recognition that the "internationalization policy has to go beyond simple side strategies for the universities and grow to be the institutional nerve in all areas: education, research and technology transfer." It is in this context that the UPV/EHU made in 2011, two basic plans: Plan of Research and Internationalization Plan to complement and reinforce the lines of action put forward in 2010 with Euskampus. The main objective is to improve our international visibility and positioning in the rankings of reference.

The UPV/EHU, committed from the beginning with the development and standardization of use of the Basque language, is also making an extra effort to introduce a third language (mainly English and a French minor follow-up) in their classrooms. In 2006 started the so-called Plan of Multilingualism in order to teach in these languages to facilitate the arrival of foreign students and to strengthen language training for our own students. A training protocol was launched for university professors who, having reached a level C1 of handling the foreign language and after an examination, received accreditation for their classes in English (or French). There are currently more than 500 accredited teachers.

Regarding the policy of the UPV/EHU in attracting foreign students there are clear differences between the level of undergraduate and postgraduate. At undergraduate level our primary objective is to ensure as many students as possible that, during their studies, have an international experience. To this end, the university has promoted the signature of exchange agreements with both European universities and institutions from other geographical areas. We currently have mobility programs to Europe, North America, Latin America and Asia where about 1100 students participate annually.

In the postgraduate and doctorate programmes in addition to exchange programmes, there are policies aimed at attracting talent and recruitment of students to pursue their studies in the

UPV/EHU. 20% (about 450 students) of the annual enrolment in official Masters programmes is of foreign students and about 10% of master's programmes may be taken in English. Also, special attention is paid to European and international theses. Out of the 320-350 thesis to be read annually at the UPV/EHU 20% are European or international thesis. In this section, special attention deserves our Latin American Network of Master and Doctorate Programmes, implemented in 14 universities from 13 different countries, with doctoral degrees in the areas of Law, Economics, Philosophy, Computer Science and Psychology.

From the point of view of involvement with regional interests, specific collaboration with the Universities of Aquitaine deserves special mention. For years a tradition of collaboration with the universities of Aquitaine exists, which has led to the definition of higher education and research as one of the three fundamental basis of the Euroregion of Euskadi-Aquitaine. Euskampus foresees the creation of a cross-border campus with the University of Bordeaux. Several steps have been already taken for this ambitious project:

- Joint grants' calls for thesis co-led by researchers from the universities of Bordeaux or Pau and the UPV/EHU.
- Calls for mobility of students and researchers from both universities to design joint postgraduate programmes and to prepare joint applications for European research projects.
- Cross-border "Doctoriales" (intensive one week workshops to develop transversal skills for doctoral students in areas such as communication, innovation, entrepreneurship, etc.).
- Joint strategies of knowledge transfer and valorisation.
- Exchange of good practices, opening in the Euroregion of services and infrastructures to support entrepreneurship and propose the creation of a social network of entrepreneurs in the Euroregion.
- Establishment of international bridges: the alliance with Aquitaine provides the UPV/EHU with relationships with East Asian countries and Quebec.

UNIVERSITY OF DEUSTO

6.1 Mechanisms to promote HEI's regional involvement

At the University of Deusto, we believe that the process of drawing up regional planning instruments (PUV (Basque University Plan), PCTI (Plan for Science, Technology and Innovation, Business Competitiveness Plan, etc.) affords a good opportunity to analyse and diagnose the degree of regional development. Weaknesses and strengths of the system or subsystems concerned can be highlighted as well as the threats and opportunities that appear in the planning context. Planning processes as a whole, together with the statistical data developed over time (EUSTAT-Basque Statistics Institute), studies and reports drawn up by consultative bodies (such as the CES -Spanish Socio-Economic Council) or the universities themselves help to identify key issues.

6.2 Promoting regional dialogue & joint marketing initiatives

The University of Deusto believes that HEIs find spaces for **communication and dialogue** with regional agents in:

- The different consultative councils (such as the socio-economic council)
- Forums for meeting, reflection and action concerning education, research, innovation (such as Unibasq, Ikerbasque, Innobasque)
- Oversight agencies for large scale strategic initiatives (PUV, PCTI, etc.)
- Joint internationalisation, commercialisation, etc. actions between institutions-industry-universities.
- Spaces created in the universities themselves (governing bodies, social and assessment councils…)

The case of the University of Deusto:

- The University of Deusto's management team fosters participation in formally established bodies and informal spaces for reflection and action.
- The University of Deusto has also encouraged decision makers from institutions, companies, social organisations and prominent citizens to take part in its **governing bodies and centres** (the Board of Governors, Board of Trustees of the Foundation, boards of development units, faculties and institutes, boards of alumni clubs and associations…)
- The professional world has been brought into the classroom through the participation of experts as **lecturers** (in undergraduate, postgraduate, continuing education programmes, **research** (joint projects) and **transfer and social outreach** (Deusto Forum, Job Forum, congresses, meetings, seminars, events…).

Because Deusto is a non-profit university registered as a charity and is not publicly owned, its access to some consulting bodies is limited as they are only open to representatives from public universities.

6.3 Evaluating and mapping the impact of the regional HEIS

Information on the **impact and relationship** of HEIs with their environment is collected through the Public Statistics Institute (EUSTAT) and studies carried out by Basque Government departments and regional councils.

The **media** are often receptive to news about statistics, studies or sectoral reports. They play a key role in disseminating the value of knowledge, research and higher education in developed societies.

In the case of the University of Deusto, **different agents** (the Office of the Vice rector of Communication and Social Outreach, the Office of Communication, the marketing management team, heads of communication in the different centres*,…)* work to inform, communicate and involve society in Deusto's activities and contributions to educational, social, economic, cultural and environmental development. They also set up assessment and auditing mechanisms to conduct impact, brand and image studies.

6.4 Institutional capacity building of the regional involvement

Deusto's last **Strategic Plan 2014** highlights the importance of working to achieve academic excellence (teaching and research), supported by an organisation and people, a competent university community committed to change and social transformation.

Especially relevant is the commitment to **University Social Responsibility**, demonstrated through the local and international social outreach of all the university's activities.

The strategic areas and objectives, projects and actions are aligned with the objectives of the PUV (Basque university plan), the PCTI (science, technology and innovation plans), employment and business competitiveness plans, etc. with the aim of cooperating in regional development through activities that are an inherent part of the university.

Within the framework of the Board of Governors, a **Social Affairs Committee** acts to prompt dialogue with institutional, business and social agents.

The Board of Directors, working from the **Vice-rector's Office of Communication, Plurilingualism and Social Outreach** and the **General Management of Departments and Services**, carry out permanent networking and fundraising, dialogue with institutions, political parties, business organisations, social agents and the media. This strategy seeks to generate: programme contracts, framework agreements or joint initiatives with these institutions, industry and social organisations.

The **Office of Communication and Social Outreach** works to support these groups in four focus areas: Strategy and reports, networking and fundraising, events and social outreach, digital identity and the media.

Some of the most outstanding **results** of this collaboration include:

- Programme contracts with the Basque Government Department of Education, within the framework of the PUV.
- Participation in the innovation fund with the presidency and different departments of the Basque Government, within the framework of the PCTI.
- Development of different employment agreements with the Department of Employment and Social Affairs.
- Signing of pluriannual framework agreements with the regional and city councils of capital cities in the Basque historical territories.
- Promotion of framework agreements with the Santander, Kutxabank and BBVA, Telefónica, Euskaltel, Iberdrola, etc.
- Joint actions with charity organisations such as Caritas, Etorkintza, ONCE, etc.

One especially innovative project is ***Bizkailab***. It is the result of a pluriannual cooperation agreement with the Biscay Regional Council. The initiative envisions creating an R&D innovation and transfer pole by collaboration and co-creative work between institutional and university decision makers, technical staff from the public administration and researchers. The project focuses on 11 priority areas. Every year, priority actions and projects are set, with assessment indicators, yearly reports, results auditing, development of a digital communication platform and socialisation of results.

6.5 Human and financial resources management

Deusto Strategic Plan 2014 raises the challenge of glocalisation, a balanced response to local and global issues. As for people management, emphasis is placed on teaching-learning competences and research. Furthermore, special efforts are being made to ensure that the members of the organisation achieve a pluri-lingual profile (Spanish-Basque-English-other languages), technological competences (management-training-research software, Internet and social networks) and relational competences (fundamental for socialisation, networking, communication and social outreach).

Hiring policy centres on **retaining local talent**, boosting their training outside while making it possible for them to return to the university. **External talent** is also a focus point to strengthen strategic areas of knowledge.

As a non public university registered as a charity, the University of Deusto**'**s **funding** comes mainly from students' fees, proof of its conviction and commitment to society. The top quality education offered by the university and Deusto graduates' high rate of employability have prompted over a hundred thousand families to place their trust in our university over the last 125 years.

In addition to this considerable income from student fees, revenues from research and transfer and continuing education are playing an increasingly important role. The programme contracts signed with the Department of Education, participation in the Basque Government innovation fund, the joint initiative with the Biscay Regional Council, the framework agreements with the Santander-Kutxabank-BBVA and other entities, etc. are worthy of special mention.

The scope and diversification of the strategic alliances, long term stability (4-5 years), sufficient financial resources to reach the goals set and dynamic collaboration and co-creation between the sponsors and the university are the four main pillars on which fundraising at Deusto is based.

6.6 Creating a new organisation culture

From the University of Deusto's strategic positioning in the present and medium term, there **do not seem to be any contradictions** between a profound universal vocation with an increasing number of international students (approximately 15% at present, accounting for 25% in the Master's and PhD degree programmes), lecturers and researchers and a high degree of enculturation (involvement with the society in which we live). The key reason is that we understand university academic excellence, in teaching and research, enables us to make a commitment to socially responsible and sustainable innovation with a **transnational** approach (from local to global and vice versa).

The university community is increasingly involved, acting together with social agents in our area, to achieve this objective. The MFUD (Deusto Education Model) is based on teaching-learning of knowledge, competences and values, in a model which is interwoven with our social environment. The **Tuning Project**, coordinated by the Universities of Deusto and Groningen is now operating on every continent. It encourages contracting parties, social agents, academic staff and students to become involved in designing syllabuses, internships, undergraduate or Master's degree final projects.

Focus is also placed on striking a balance between excellence in internationally recognised scientific production in research and its transfer and applicability in our immediate business, institutional and social environments.

The University of Deusto's permanent pursuit of excellence means aiming for quality in research and teaching, together with university social responsibility in our immediate area and a commitment to universality. Our efforts are not centred on holding a top spot in generic rankings because of our size or limited resources. We have a **firm commitment to specialisation** and developing **universality on a specialised human scale recognised internationally on sectoral rankings.** We are promoting **two strategic poles** to achieve this goal. One pole centres on **economic development**, with the convergence of three areas of knowledge: economic and business sciences, private law and technology engineering. The other pole centres on **social development,** based on interdisciplinary work in: social and human

sciences, public law and social technology. The **Aristos Campus Mundus** Campus of International Excellence pursues this aim, sharing challenges and increasing chances of success through the aggregation project with the Universities of Ramón Llull, Comillas, Georgetown, Boston College and Fordham.

MONDRAGON UNIVERSITY

6.1. Mechanism to promote HEI´s regional involvement

The Mondragon University (MU) main objective is to contribute to the Basque society transformation.

The MU has to be capable to aligned knowledge with production, and not the opposite. People that are on the market have to define what it is interesting to be developed in the near future, and universities will design the most accurate training programmes for that purpose. Only in that way is possible to aligned knowledge with added value.

MU is a young, dynamic cooperative and non-elitist university integrated in the Mondragon Corporation and open to the society. It is absolutely committed to the society transformation: training young people who lead the future, always aligned with companies and institutions current and future needs to compete successfully in the today's globalised world.

Mechanisms and methods used by the University to adapt to productive and institutional requirements are mentioned in successive chapters.

6.2 Promoting regional dialogue

Although it is usual that universities are located in capitals or cities with high population densities, MU was born in the municipality of which inherits its name and later expands its offer with two more location: Oñate and Eskoriatza. All of them integrated in the Leniz Valley, located in the heart of the Basque Country and that brings together a population of over 60,000 inhabitants.

The close interaction of the University with local actors and in particular with the Mondragon Corporation has enabled a strong territory structuring becoming the second valley with a higher family income in the Basque Country.

The MU acts as a pole attraction of many young people from all the autonomous community, more than the 75% of the students come from outside the region. This contributes to the fixation of the population, supporting businesses and contributes to the improvement of communications of all sorts thanks to the induced activity.

The MU campus activity has always been more than the pure formal university training. The lifelong learning, the applied research to catalyze innovation, the transfer towards companies, the RTOs creation and the promotion of innovation poles have been promoted.

Our campus concept is closely linked to the Innovation Poles. The campus- Poles are thus platforms in which coexist in the same physical space the Mondragon University, RTOs and the companies R&D units in such a way that a two- ways interaction between all agents is facilitated.

These Campus- Poles are a focus of skilled jobs generation, new firms and reorientation of traditional industries leading to the diversification and revitalization of the economic fabric.

As an example of this philosophy and its effective implementation, the Campus- Poles promoted with MU presence that deserve to be featured are:

- *GARAIA Innovation Pole (Mondragon),*
- *CUT- University and Technology City (Oñate),*
- *GOIERRI Innovation Pole (Ordizia)*
- *BIDASOA campus (Irún)*
- *BASQUE CULINARY CENTER (Miramón Technology Park)*
- *Audiovisual Communication Pole (Aretxabaleta)*

- *GALARRETA Innovation Pole (Hernani) (in development)*

The MU vocation is to extend this model where and whenever the necessary conditions are given, being essential requirements:

a)the availability of infrastructure and the commitment of the local and/or territorial administrations

b)the expressed commitment with the project of the companies in the area

In all these realities the participation, of regional stakeholders at the highest level (mayors, deputies, Basque Government Directors) as well as the representatives of the productive sector, has structural character, being their practical participation truly remarkable.

Indeed, the MU cooperative model provides an important singularity in the organizational aspect because, unlike other non- cooperative universities, MU has a number of management bodies (governing councils, assemblies, etc…) with power to make strategic decisions. These bodies are composed both cooperative partners as representatives of companies, institutions and students.

MU bodies act in those areas where they add more value than each of the faculties separately or in basic and strategic elements for the whole faculties. Each of the faculty bodies' focuses their efforts in the management and deployment of the MU guidelines.

6.3 Evaluating and mapping the impact of the regional HES

Mondragon University has four instruments to assess its activity impact:

a)*Field study of the University graduates employability*.

This study is annually conducted by the EGAILAN Agency, linked to the Basque Government. It includes among many other things, rates of employability and graduate fitting for the Mondragon titles. It measures the level of degrees adaptation to meet the needs of labour market and the companies' degree of preference of companies and institutions by the Mondragon students.

b)*Feedback from institutional and business stakeholders linked to the Mondragon University through various bodies and ways of participation*.

This feedback is *de facto* permanent and presents very differing forms depending on whether they are structural representatives, as it is the case of the governing councils, or on the contrary, if they are advisory and/or advice committees constituted ad- hoc to evaluate existing plans or policies or define new strategies. In any case, is particularly remarkable the intensive process of contrast and evaluation between external actors and the MU in the previous phases of the quadrennial strategic reflections, and although of lesser intensity, the diagnosis that precedes the development of annual management plans is also very important.

c)Field studies commissioned by the University to specialized agencies.

The agenda of these studies includes aspects as varies as the general impression of the University, trademark positioning and attributes, competitiveness criteria valuation, level of knowledge and offer valuation, educational model assessment, etc… These studies are both spontaneous and suggested and segmented according to the type of costumer and geographical scope.

d)Evaluation of the University Plan indicators

The University Plan contemplates a demanding pool of indicators that allows a comprehensive monitoring of the evolution of the identified actions as relevant in the reporting period.

All this information is systematically used by Mondragon University for the adoption of corrective or driving forces to quickly adapt to the society needs and to maximize the impact of the University actions.

6.4 Institutional capacity building of the regional involvement

The MU path and its future vision regarding the Basque Country needs rely on the belief that universities have to bear the responsibility of becoming key players to lead the society transformation.

For this reason, and as it has been mentioned before, Mondragon University is established there were there is a convergence of interest with local companies and agents, constituting powerful aggregations with common objectives. In this way, we contribute to a rational and sustainable transformation of the territory.

On the other hand, we do not forget that one of the most powerful ways to transfer knowledge and contribute to the transformation of society is the young graduates. They are the future and they will shortly lead the fate of the country. It is therefore essential to innovate continuously in teaching.

More than ten years ago, MU began an ambitious project of innovation, the MENDEBERRI project, which has allowed an in-house pedagogic model. But we are still working, working in this in- house model together with European universities in order to consolidate internationally the MU as the node of reference in the project- based learning.

Other key challenge is the adaptation of this model to the new web 2.0 scenario. The 2.0 students (they are already) urgently require a 2.0 university.

Another cornerstone of the MU performance is the support to the firms in improving their competitiveness. Its research is not essentially focused on the generation of new knowledge, but rather in the acquirement and the domain of available knowledge to put it in position to be transferred and applied to the products and services of the firms and institutions.

For that purpose, the MU positioning is very clear. It is a university deeply linked to the social, institutional and business world and always aspires to be excellent enhancing and transferring the results of the research.

Transference requires being ahead. The MU mission is precisely to predict, many times bet, those research lines that in a foreseeable future firms and institutions will require.

This model, known as Collaborative R&T, it is practiced with normalcy and intensity with more than one dozen of Basque leading companies. These organizations see the model as a real and effective extension of their always insufficient human and materials capabilities to ensure their future competitiveness.

In any case, with its cooperative management model, MU constitutes an international reference of university governance, something like a third via, as well as a tangible proof of the cooperative movement phenomenon in an area as unique as the university.

6.5 Human and financial resources management

The University different faculties are managed on the basis of the fundamental premise of the assurance of the economic sustainability. In this context, each faculty retains its own autonomy which leads to its adaptation to the economic environment in which are located, with absolutely flexibility for their own development.

It is important to highlight that in the MU, the faculties Deans are Deans in an academic perspective. But at the same time, and above all, the general directors are the maximum responsible of management and the fulfilment of the established objectives in the management plans of each cooperative (Foundation in the case for the Gastronomy Faculty), always within the framework of the strategies and common objectives adopted democratically within the university.

This include all elements of management: marketing plans execution, selection and recruitment of staff, the evaluation of the staff performance (Administrative and Support staff and Teaching and researching staff), definition and implementation of strategic and management plans, identification of priority research areas, quality assurance, etc. In short, comply with the ultimate goal of the annual budget sustainability and the future viability of the institution, always consistent with the mission and vision stated.

The main headings of the MU faculties financing are:

- *Students enrolment (graduate and postgraduate)*
- *Income from non- formal training: professional training (MU+)*
- *Competitive Research Projects*
- *Profit transfer contracts with firms*
- *University Plan Framework Program*

From these items, the University Plan Framework Program is the only with structural character. This framework, four- years based, only represents the 13% of the total budget of the MU in 2001-2012. The rest of the items are the result of the activity of fundraising in a fully competitive context.

6.6 Creating a new organization culture

Since its genesis, the MU presents a high link with the business world and the Mondragon Corporation. For this reason MU DNA is made up by aspects such as results orientation, efficiency, costumer orientation, collaboration with the society etc.

This DNA, implicit in the four faculties, has historically made that instruments used normally at the business world are being used at the university. These instruments are: management plans, strategic plans, marketing plans, quality plans etc.

In this effort to use different business management tools, the MU made a mayor endeavour to provide a quality assurance system according to the ISO 9001: 2000.

In this context, and as a logic evolution, the University and its faculties adopted the EFQM model as management model.

MU faculties have received several awards as the membership of the 400 Club. The 400 Club is an important award given by Euskalit (Basque Foundation for Quality) to all Basque organizations that manage 400 points in an external expert evaluation.

MU is probably the only university where all their faculties have a significant level of management development according to the EFQM standards. The EFQM recognition involves that organizations has to deploy a significant level of management in different processes, which leads to the achievement of high level of results and a positive trend on them.

Despite its clear orientation towards local issues, MU does not neglect the approach of a global university.

MU has agreements with 131 universities in 29 different countries. It encourages partnerships with cooperatives of the Mondragon Corporation and with other firms with international location for the end-of-year projects; it promotes international networks with universities and research centres. MU is also involved in an ambitious project related with transference of its university model to universities in Latin America countries committing in the subsequent management.

Having said all that, it is easy to understand that MU is a relatively unusual university with respect to the usual prototype both in the public and private, both nationally and internationally. MU does not fit too well with the criteria used in the elaboration of university rankings since the

MU mission- vision differs substantially from the spirit that lies behind most of the criteria that rankings are based on.

In any case, with its cooperative management model, MU constitutes an international reference of university governance, something like a third via, as well as a tangible proof of the cooperative movement phenomenon in an area as unique as the university.