

Spain – Basque Country Report

1. Profile of the region

▪ Introduction

- **Location of the region/country and main characteristics**
- **Demographic aspects**
- **Industrial and technological infrastructure**

Spain is an EU member state occupying most of the Iberian Peninsula in Western Europe along with Portugal. The Basque Country is an autonomous community in Northern Spain and shares with the rest of the country many characteristics and problems related to the construction sector. The Basque Country or Euskadi is formed by the three provinces Guipúzcoa, Vizcaya and Alava.

Having the lowest birth rates among Spain the Basque Country had been losing population since the mid 1980s. In the last decade, the demographic tendency changed and population has been growing mostly due to immigration to about 2,151,000 inhabitants. An added effect of low birth rates is the ageing of the population.

With a per-capita GDP of 29,683 € the Basque Country is among the wealthiest regions in Spain. Industrial activity expanded greatly in the late 19th century around metal working companies (steel production, forging and shipbuilding). This heavy industry-based economy saw the increasing growth of the services sector in the late 20th century as well as new technologies including electronics and ICT.

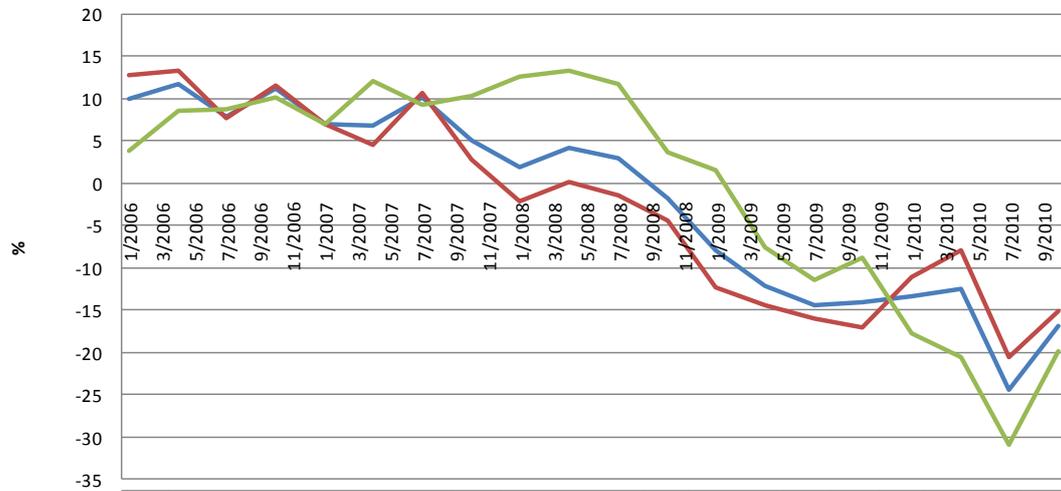
Building is an important sector as well, as it is in the whole of Spain. In fact, it has been an oversized sector (the so-called “building bubble”) that recently played a central role in the current economic crisis in Spain when housing demand fell well below supply. The Basque Country is affected by the current crisis in this sector in Spain.

▪ Economic Analysis

The construction sector has been in crisis in Spain in the last years. An oversized activity sector saw the fall of the demand of used and new houses and buildings following the increasing unemployment rates. This crisis led to increased unemployment in the construction sector itself. The Basque Country is no exception and has witnessed gradually reduced activity in the last few years.

In particular, the building sector in the Basque Country fell a 15% in the last quarter of 2010 with respect to the third quarter. Employment in the sector fell 2% in the same period, and a 9.5% with respect to the previous year.

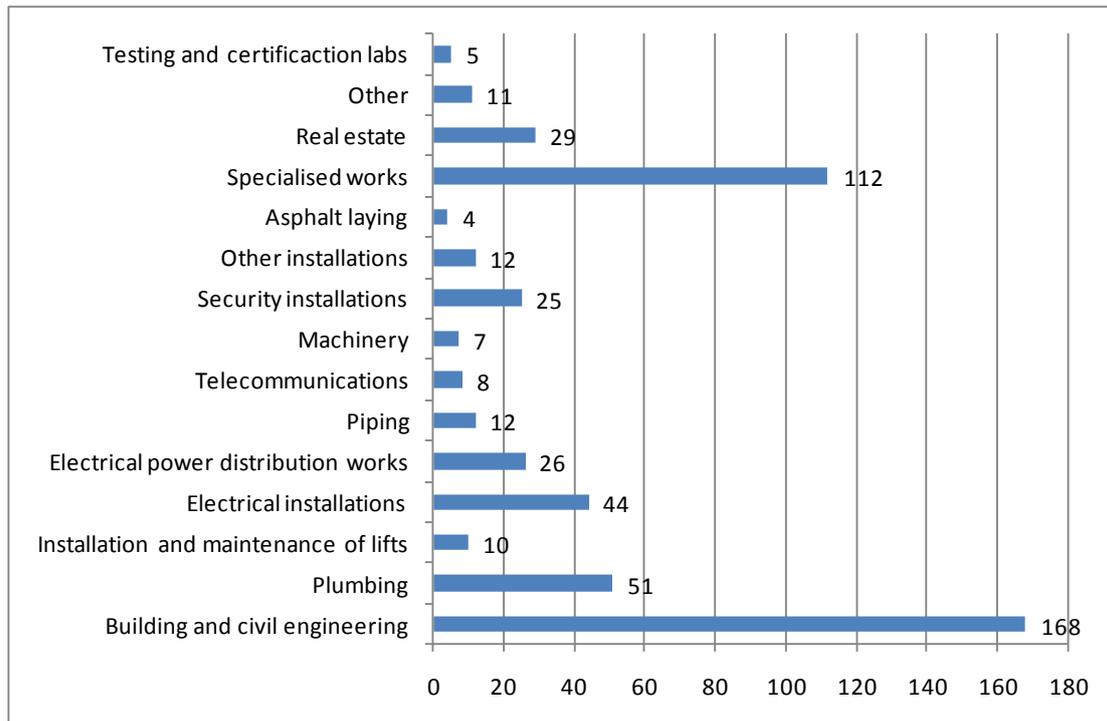
Quarterly growth of the construction index in the Basque Country 2006-2010



	1/06	4/06	7/06	10/06	1/07	4/07	7/07	10/07	1/08	4/08	7/08	10/08	1/09	4/09	7/09	10/09	1/10	4/10	7/10	10/10
Total	10	11,8	8	11,2	7	6,8	10,2	5,1	2	4,3	3,1	-1,8	-7,8	-12	-14	-14	-13	-12	-24	-16
Building	12,7	13,3	7,7	11,6	7	4,5	10,6	2,7	-2,1	0,2	-1,4	-4,4	-12	-14	-16	-17	-11	-7,9	-20	-15
Civil	3,9	8,5	8,7	10,2	7	12,1	9,3	10,4	12,6	13,3	11,7	3,6	1,6	-7,6	-11	-8,7	-17	-20	-30	-19

The total number of SMEs in the Basque Country as of 2008 was 168,231, of which 156,918 (93%) are micro-SMEs with less than 10 employees. Around 36,000 of those belong to the construction sector.

The construction sector encompasses a diverse range of activities. The following chart shows the number of companies in the different activity areas among those certified in the ISO 9001 standard as of December 2010.



- **Social & Cultural Aspects**

- **Education**

Three major universities exist in the Basque Country offering degrees related to construction: the public University of the Basque Country, Mondragon University and the University of Navarra (whose Engineering faculty is in San Sebastián). These Universities offer degrees in Civil Engineering, Architecture, Industrial Engineering as well as other disciplines. Duration of studies is 5 years, plus a Master's thesis, for an equivalent of a Master's degree. Technical training is also offered, with a duration of 3 years.

2. Profile of Small to Medium Sized Enterprises (SMEs) in the Construction Sector

- **General description of small enterprises, i.e. number, characteristics of the companies, e.g. family based, traditional organizational structures, implementation of technology and innovations**
- **Energy efficiency trends**
- **Challenges and opportunities facing SMEs**

The total number of companies of all sizes related to the construction sector in the Basque Country exceeds 36,000, with more than 1,500 related to maintenance of buildings and infrastructures. Another 4,800 work in the real estate business and over 1,900 in manufacturing of construction materials.

Several medium sized companies exist (such as Amenabar, Sukia, Teusa, Altuna y Uria, Hirigintza, Moyua, Galdiano, Inbisa, Sarkis-Lagunketa) carrying the work of most larger scale residential and non-residential buildings. These address all phases since inception, design and actual construction and also work on rehabilitation of existing buildings. Then, a large number of small and micro-sized enterprises form the sector, covering all activities in the area.

The current sector's crisis began in 2007 specially affecting new buildings. In 2009 the number of new households built decreased a 40% with respect to the previous year. The activities with greater potential currently are rehabilitation and restoration of existing buildings.

In 2010, the Basque Government's housing department started fostering the creation of a "cluster" of the construction sector. In November 2010, ERAIKUNE, the Construction Cluster was established, inspired by the success of clusters of other sectors (e.g. electronics and ICT, transport, audiovisual).

ERAIKUNE was born to join efforts of Basque companies of all sizes in the construction sector, find synergies and make them more effective to face current and future challenges. In particular, ERAIKUNE will have the following activities:

- Support cooperation between enterprises gathering all agents to improve competitiveness of the sector.
- Facilitate access to knowledge via competitive surveillance, technology and trends analysis.
- Foster access to new national and international markets
- Foster innovation through research and development, optimizing current techniques and generating new products, processes or systems
- Industrialization of construction processes
- Foster economic, social and environmental sustainability.

ERAIKUNE is relatively new and still has a small number of members. It is foreseen that membership will increase to most companies in the sector.

IHOBE is a public society helping the Basque department of environment, agriculture and fishing to promote environmental policies aiming at sustainability and eco-efficiency. IHOBE publishes guides with recommendations along these lines and inspired by the EU Directives concerning energy efficiency in buildings (in particular the Energy Performance Building Directive).

According to Eraikal, the Basque Government's programme for promotion of quality assurance and sustainability in construction, as of December 2010, there are 524 SMEs in the construction sector certified in the ISO 9001 standard. The total number of companies in the construction sector is 2801, according to Eraikal.

The above numbers encompass all companies related to construction, including building and civil engineering, plumbing, installation and maintenance of lifts, electrical works, piping, telecommunications, machinery, security installations, asphalt, real estate, testing and certification labs. Building and civil engineering account for 168 out of the 524 ISO 9001 certified companies.

There is potential for growth of innovation activities in Basque SMEs, especially in the construction sector as this sector is not particularly actively participating in innovation initiatives. A recent survey by the Department of Industry showed that an average of almost 19% of SMEs in industry and services sectors benefit from grants for innovation, but only 2,8% of SMEs in the construction sector benefit from similar grant programmes.

Energy efficiency trends

Last April, the Basque Government's housing department informed that it is preparing a set of help measures to promote rehabilitation of buildings targeted at improving energy efficiency. The Government will provide financial help to individuals and communities to refurbish their buildings and energy efficiency will be taken into account to evaluate grant requests.

Officials consider that currently around three quarters of existing buildings are energy consumption hogs. This refers to buildings made before 1980 when the first law was passed in Spain establishing thermal conditions to new constructions in order to save energy.

Two strategies are considered in energy efficiency:

- Reduction of energy needs of a building by improving isolation or controlling solar radiation with proper glass.
- Integration of renewable energy generators: solar photovoltaic, solar thermal, wind energy or even geothermal.

As an example in this direction, in a recent pilot initiative, Vaillant and the construction SME Ekoetxe, built a single-family household integrating the most up-to-date technology in energy efficiency and small scale generation. The house obtains 75% of its energy needs from the earth through a geothermal heat pump.

IHOBE's sustainable construction guidelines aim at making a significant part of the energy consumed by buildings to come from renewable sources.

All over Spain, the *CTE - "Código Técnico de la Edificación"* (Technical Code for Building) is the normative framework all construction works must comply with. It deals with aspects of safety (structural, fire, usage) and habitability (healthiness, noise prevention, energy savings) for new buildings.

The CTE's "*DB-HE: Energy Saving*" Document sets rules and procedures to meet basic requirements of efficiency. This document describes rules in the following aspects:

- Limits on energy demand
- Efficiency of thermal installations
- Energy efficiency in illumination installations
- Minimum solar contribution to sanitary water heating
- Minimum photovoltaic contribution to electrical energy

3. Preliminary Findings

Awareness in energy efficiency in building has been growing in the last years, following EU Directives and Spanish norms derived from them. At least since 1980 some laws exist in Spain regarding energy efficiency in new buildings, but many older constructions are known to be very inefficient. That gives an opportunity to works related to rehabilitation of buildings to meet efficiency and sustainability demands.

Companies in the sector are especially careful when it comes to thermal isolation in walls and windows, by using good performance materials. Also low power lighting devices are being used more and more.

Small scale energy generation is also slowly catching on. Ingesea is a SME specialised in energy efficiency solutions for SMEs and household buildings, offering mini-windmills, photovoltaic or thermal solar roofs and biomass generators.

Our initial survey shows that the Basque SMEs do consider energy efficiency an important in their business but are not especially familiarised with the latest products in this area. They seem to value energy efficiency, or some aspects of it, mainly because of legislation requirements or quality standards but neither for its commercial benefit nor because their customers actively demand it.

There does not seem to be a clear strategy to improve energy efficiency among the SMEs.

Regarding the energy efficiency products currently in use, it is clear that the main concern is thermal insulation (in walls, roofs, pipes, windows and construction materials in general). Also mentioned is low power consumption lighting.

4. Conclusions

As a part of Spain, the Basque Country shares with it many characteristics in the economic, demographic and normative fields. Spain is immersed in an economic crisis with strong implications in the construction sector of which the Basque Country is not an exception. A construction activity supply over the real demand and overpriced products is one of the causes of the current crisis and the very high unemployment rate of nearly 20%. While the Basque Country is slightly less affected and unemployment is not as high, construction in particular has seen significantly reduced activity in the last few years.

Regarding construction and energy efficiency habits, trends and especially legislation this region is quite similar to the rest of Spain.

The main areas of work in energy efficient building are efficient isolation by the use of special materials, low power lighting and residential energy generation through solar panels and mini-wind turbines.

It will be interesting to wait for the new ERAIKUNE cluster to settle as it will be a crucial factor for the smaller companies to bet for innovation, something too difficult for them to do in isolation given their small size and problems in the ongoing crisis.

Additionally, the legislation on energy efficiency and the rules established by the Código Técnico de Edificación is relatively long, complex and technical. The use of such regulations and recommendations could be facilitated with ICT systems that transmit that information in a more intuitive and simple way or which calculates thermal characteristics according to the equations from those documents in a simplified way to the smaller SME users.

References

EUSTAT – Basque Statistics Agency

<http://www.eustat.es>

ERAIKUNE – The Basque Cluster of Construction

<http://www.eraikune.com>

Situation map of the construction sector. December 2010 – Eraikal Programme

http://www.garraioak.ejgv.euskadi.net/r41-18971/es/contenidos/informacion/mapa_situacion/es_mapasit/adjuntos/mapa_dic10.pdf

Claves de la construcción y edificación ambientalmente sostenible: retos y oportunidades – IHOBE

<http://www.ihobe.net/Publicaciones/Ficha.aspx?IdMenu=750e07f4-11a4-40da-840c-0590b91bc032&Cod=edf893df-7eb7-477c-b009-b4d8a4243b74>

Vivienda ultima la orden de ayudas a la rehabilitación con fines energéticos - Finanzas.com

http://www.finanzas.com/noticias/empresas/2011-04-03/458501_vivienda-ultima-orden-ayudas-rehabilitacion.html

Investment in innovation in SMEs - Basque Government, Department of Industry, Trade and Tourism

<http://www.parlamento.euskadi.net/irud/08/00/010997.pdf>

Documento Básico HE: Ahorro de energía (Código Técnico de Edificación) – Spanish
Ministry of Public Works

http://www.codigotecnico.org/cte/export/sites/default/web/galerias/archivos/DB_HE_abril_2009.pdf