

# RIS3 IN CASTILLA Y LEÓN: BACKGROUND DOCUMENT

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## 1 Basic coordinates of Castilla y León

### 1.1 Territorial framework and demographic situation

With a regional territorial area of 94,224 km<sup>2</sup> (the most extensive Spanish region and the second in the European Union), Castilla y León is structured in nine provinces and 2,249 city and town councils (almost the 30% of the existing ones in Spain).

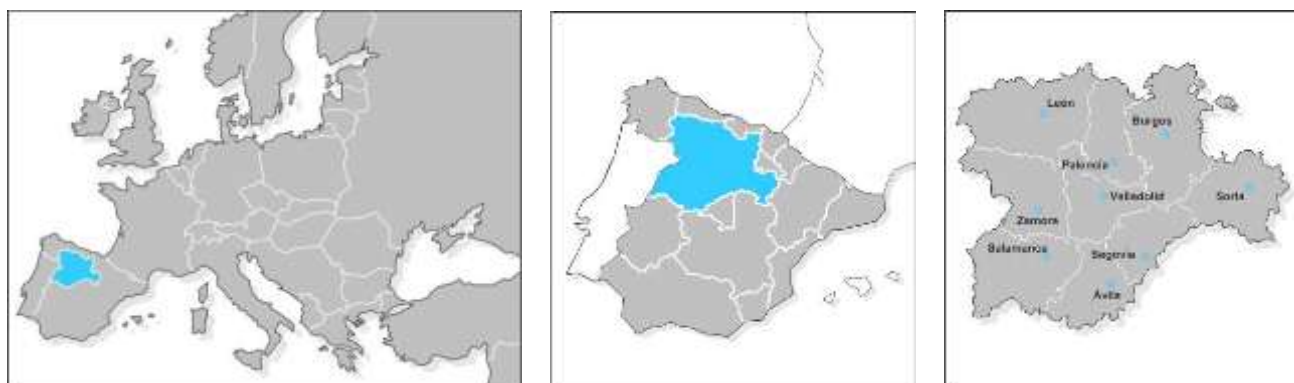


Figure 1. Location of Castilla y León and territorial division in its 9 provinces.

The extension of the region and its geographic situation (Castilla y León borders on nine regions in Spain and Portugal) make Castilla y León an important communication hub at the Spanish and European level in the central axis of the Continental Diagonal. This strategic location endorses the regional policy of development of infrastructures that Castilla y León is undertaking.

Castilla y León had a population of 2.558.463 inhabitants in 2010 (Source: INE, Spanish Statistical Institute). During the 90's the region has lost population, however, this trend has changed in the last few years (since 2000, the population has increased in 73,860 inhabitants).

### 1.2 Evolution of the productive structure of Castilla y León

During the last decades, an important transformation of the economic structure of Castilla y León has taken place, with a continuous modernization and an increasing convergence to the European Union.

The modernization of the structure of the region is reflected in the loss of weight of the agrarian sector and the process of tertiary transformation of the regional economy. The table shows the evolution of the economic structure in the region.

Sector and Year	1982	1990	2009	2010	2011
Agriculture	30.4	19.9	6.6	6.4	6.6
Industry	19.4	20.5	17.6	16.0	15.5
Construction	9.2	10.1	10.4	9.7	8.3
Services	40.5	49.5	65.4	67.9	69.6

Table 1. Sectoral distribution of the Gross Added Value in Castilla y León.  
Source: Regional Accounting, INE.

### **1.3 Labour market evolution**

Due to the important rates of growth of our economy, the rate of unemployment in Castilla y León, was been reduced significantly during the period 1996 (19.4%) to 2007 (7.2%). More recently, unemployment rate has been affected by the economic crisis, with a rate of 19.7% in 2012. Although it is a negative indicator, the value remains 5% below the national average, as the Spanish unemployment rate increased from 8.3% in 2007 to 25.0% in 2012. During the same period, unemployment of youth population increased from 17.43% to 38.54% in Castilla y León, while it increased from 18.19% to 46.45% in Spain.

## **2 Science and Technology: a priority for the Regional Government of Castilla y León**

The modernization of the economic structure of the region and the need of a continuous improvement of the competitiveness of the industrial tissue have made R&D and innovation one of the key issues for the region, so that Science and Technology policy has become a priority for the Regional Government of Castilla y León.

### **2.1 Main elements of the regional Science and Technology policy**

The main elements of the regional Science and technology policy of Castilla y León can be classified as follows:

1. **Legal Basis:** The Law 17/2002 of promotion and general coordination of the scientific research, development and technological innovation (R&D and Innovation) in Castilla y León. This law defines the regional institutions in R&D&I, establishes the regional planning, and identifies some specific measures.
2. **Institutions:**
  - The Commission for Coordination on Science and Technology, chaired by the President of the Government of Castilla y León, is devoted to R&D, Innovation and Information Society coordination, planning, monitoring and evaluation tasks.
  - The Commissioner for Science and Technology, created by the Decree 91/2007. The Commissioner is designated by the President of the Government of Castilla y León in order to monitor initiatives, foster participation and coordination of different agents, and ensure the execution of the budget planned for the regional R&D&I strategy, among other functions.
3. **Planning:** The Regional R&D and Innovation Strategy 2007 – 2013. This Strategy defines the strategic goals and defines measures to be developed by the different regional ministries developing R&D&I policies. The Strategy foresees a midterm evaluation in 2010.

## **3 The regional “science - technology – business” system**

### **3.1 The main actors and agents in the regional “science – technology - business” system**

The main public and private actors of the regional Science and Technology system come from different ambits: education, science, business, and the regional and national administration.

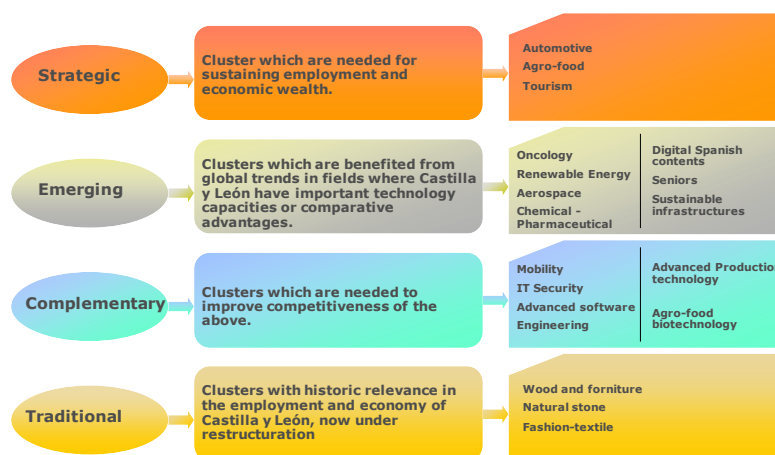
- **8 Universities:** 4 of them are public (Burgos, León, Salamanca and Valladolid) and the other 4 are private (Catholic University of Ávila, Pontifical University of Salamanca, IE University in Segovia and European University “Miguel de Cervantes”).
- **5 Institutes from CSIC (Spanish Research Council)** and 10 Associated Units, some of them operating in collaboration with Universities.

- **2 National Research Centres (Singular Scientific Infrastructures):** The NRC on Human Evolution (CENIEH), linked to the Atapuerca archaeological site, and the Centre for Ultrashort Ultraintense Pulsed Lasers (CLPU) in Salamanca.
- **Laboratories and public and private Technology Centres** with scientific capabilities.
- **Enterprises with R&D and Innovation departments and activities.** Dual system: the 50 biggest enterprises (over a total number of 170.000 enterprises in the region) spend more than 40% of the business R&D and Innovation expenditure in the region.
- **Intermediary bodies:** T-CUE Network of university interface structures, COCI (Council of the Chambers of Commerce and Industry), etc.
- **Financial entities:** Ade Capital Sodical S.C.R., S.A.; Iberaval, S.G.R.; Madrigal Participaciones, S.A.
- **Innovation Spaces:** Science Parks in the Public Universities (Burgos, León, Salamanca and Valladolid); Business Innovation Centres (BIC) of Burgos, León and Valladolid; Technology Parks in Boecillo (Valladolid), León and Burgos.
- **Public Administration:** the Science and Technology Coordination Commission, the Commissioner for Science and Technology, the Business Innovation and Financing Agency – ADE (Regional Development Agency of Castilla y León), the Universities Foundation of Castilla y León, the Directorate General of Universities and Research, the Directorate General of Planning and Innovation (Management of Health Services), and the Agro-Food Technology Institute.

### 3.2 Clusters and Industry

The industrial fabric is very diverse. Traditional activities like the automobile and food and agricultural industries position Castilla y León as a leading industrial region on national and European levels. In addition there are new activities like aeronautics, information and communication technologies, security, biotechnology and logistics.

The industrial policy of the Regional Government has established four main priorities in the support of emerging clusters:



Source: ADE.

Figure 2. Clusters in the Industrial Plan of Castilla y León.

Presently, 13 clusters are registered at national level.

## 4 Reference statistics: facts and figures

The next paragraphs present a brief description of the most important regional Science and Technology indicators: technological effort, R&D expenditure and its private contribution, R&D personnel, and patent applications.

### 4.1 Evolution of the technological effort

The following figure compares the evolution of the technological effort of Castilla y León and Spain. As can be seen in the chart, Castilla y León has been steadily reducing the gap with the Spanish average, and therefore increasing the effort in absolute terms. In a decade, the Gross Expenditure on R&D (GERD) was multiplied by more than 3.5, but during the past 3 years the economic crisis had a dramatic impact on this indicator, and technological effort has returned at the same levels than 2006.

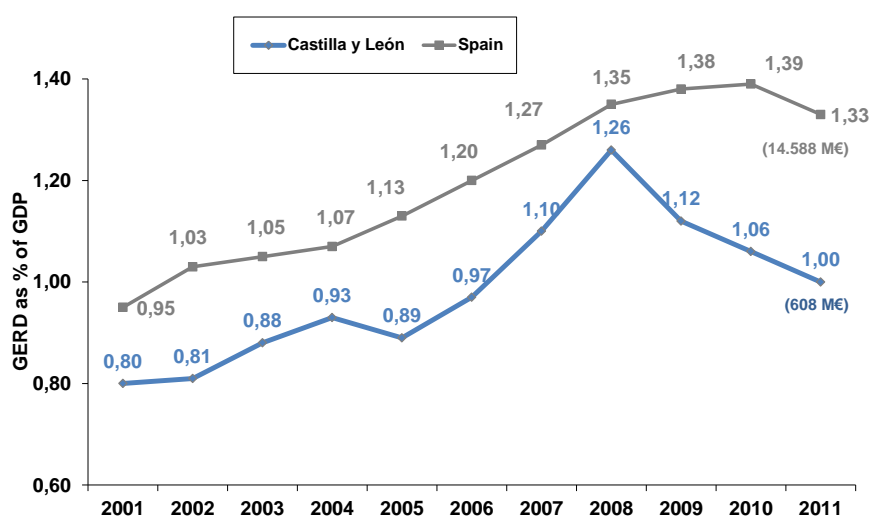


Figure 3. Evolution of the technological effort in Castilla y León. Source: INE.

### 4.2 R&D expenditure by sector

The figures show the evolution of the R&D expenditure by sectors in Castilla y León. As it can be observed, there is a significant increase in the R&D activity of the enterprises as compared with the data of one decade ago, in which the contribution the higher education sector was the most significant contribution.

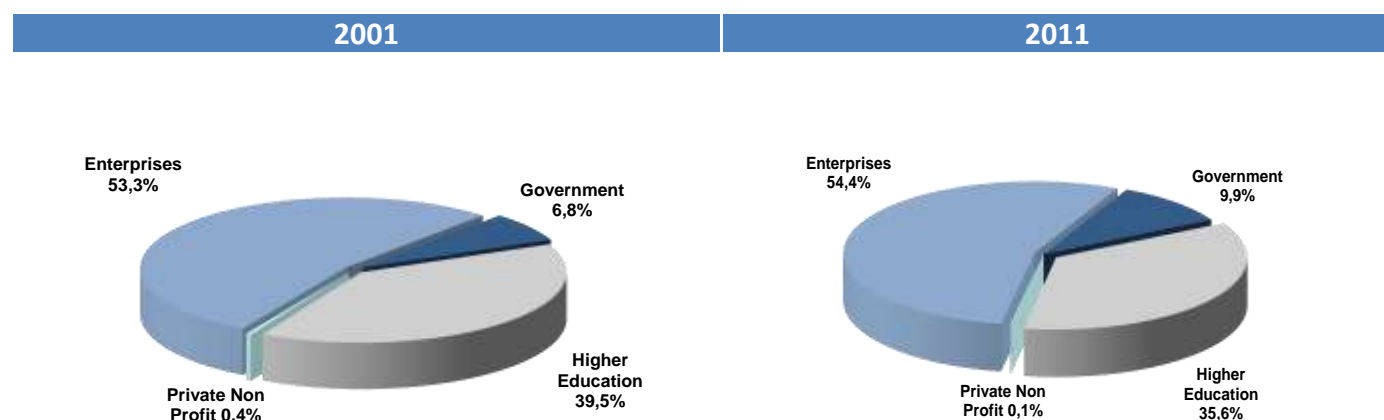
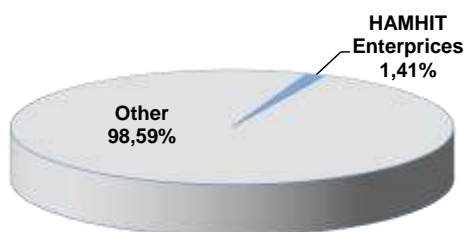


Figure 4. R&D expenditure by sectors. Source: INE.

Companies of High and Medium-High Technology sectors ('HAMHIT'), which are less than 2% of total regional companies of this group, represent more than 65% of the business expenditure on R&D.

Number of Companies (2011)



Business Expenditure on R&D (2011)

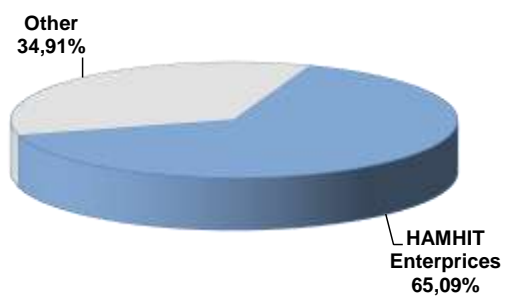


Figure 5. Main data of 'HAMHIT' Companies in Castilla y León.  
Source: INE.