

Country Report: Spain

Introduction

This report has been written as a part of the Europe INNOVA Cluster Mapping Project. One part of the project is a mapping of cluster policies, cluster institutions and cluster programmes in European Countries.

For each country, a separate report has been written. Oxford Research AS in Norway has been responsible for the mapping of cluster policies. Oxford Research has developed the structure of the mapping and prepared the final reports. Most of the work has however been done by research institutes or consultancies in the different countries. These organisations are members of “The European Network for Social and Economic Research – ENSR” or partners in the Europe INNOVA Cluster Mapping Project.

Based on the national reports, the main findings have been summarised by Oxford Research in a separate report.

The Europe INNOVA Cluster Mapping Project has been financed by the European Commission. The views expressed in this report, as well as the information included in it, do however not necessarily reflect the opinion or position of the European Commission and in no way commits the institution.

Kristiansand, Norway, December 2007.



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Please find more information about the Cluster Mapping Project and the Authors of this report on:

www.clusterobservatory.eu

www.oxfordresearch.eu

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Main ministries responsible for implementing cluster policy	Finance/ Economy	Science/ Research	Trade/ Industry	Interior	Other
			x		
Key agencies responsible for implementing cluster policy					
	Is cluster policy their only task?	Yes		No	x

Are there any national cluster programmes?	Yes	x	No		Number of programmes	2
Are there any regional cluster programmes?	Yes	x	No			10

Source of financing	National programmes		Regional programmes		
National ministries			x		
EU structural fund					
Regional budget			x		
Business			x		
Other			x		

Importance of cluster policy		Low	Medium	High
	National level		x	
	Regional level			x
Policy papers on national level	Yes	x	No	
Cluster policy over time	Increased impor- tance		Reduced importance	Shifted
	x			
Since when has cluster policy been used?	1990-95	1995-2000	2000-05	2005-
	x			
Cluster development related to a particu- lar person/organization?	Yes		No	x
	Individual		Business org.	
	Political party		Agency	
	Research inst.			
Successful cluster programmes	Basque Cluster Programmes			

Is there a cluster or competitive council?	Yes	No	A general council exists	
	x			
Degree of obstacles when building cluster policy	No/Low	Medium	Important	
		x		
General assessments of competitiveness?	Yes	x	No	

Role of clusters as framework in policy areas	Low	Medium	High
Business network policy			x
FDI attraction policy		x	
Export promotion policy	x		
Sectoral industry policy			x
Science and education policy	x		
Competition and market integration			x

Source: Oxford Research

1.1 Terminology

In each country there will be one or possibly several **terms** or **phrases** used to describe clusters. In some cases, different terms represent “competing” perspectives on clusters and, as perspectives change over time, one term may gradually replace another.

National language(s): Cluster is the word commonly used in Spain. However in 2006 the national government launched its first cluster program at the national level, within this program the term cluster is substituted for Agrupaciones Empresariales Innovadoras. Other terms used include: micro-clusters, Unidades Empresariales Productivas, and Sistemas Productivos Locales.

English translation: Cluster, Innovative Business Groupings (IBG), micro-clusters, Business Production Units and Local Production Systems.

1.2 Cluster development programmes and cluster organisations

In many countries, there are **programmes** set up specifically to promote cluster development. Such programmes can be carried out by existing **actors** (for example a government agency), or new actors can be set up to run them. Often, one of the purposes of such programmes is to help initiate **cluster organisations**, that is, the programme provides financing or otherwise promotes the formation of cluster-specific organisations, typically in some form of public-private partnership. A country can have many (even hundreds) of such cluster-level organisations in operation.

Here is presented the identified cluster agencies and cluster programmes at national and regional level in Spain.

1.2.1 Agencies for cluster policy implementation

Main ministry departments, agency or other government organisation responsible for the implementation of cluster policy at a national level

Ministry of Industry, Tourism and Trade through the Directorate General for Small Medium Enterprise Policy (DGPYME)

DGPYME is a management centre attached to the Ministry for Industry, Tourism and Trade through the latter's General Secretariat for Industry. Its mission is to promote an economic environment supportive to business initiative and the growth and competitiveness of the enterprise sector. DGPYME works in close association with national and international institutions and agencies for the advancement of business competitiveness and innovation. It also partners central and regional government departments in a variety of enterprise promotion, modernisation and development programmes.

DGPYME does not have cluster policy as its only task, as it is responsible for such issues as economic promotion, trade, tourism, etc.

Source: Personal Interview with DGPYME representative Paloma Perez.

Regional organisations/agencies that work with cluster development

Up until recently (2006) cluster policy has been a Regional Government initiative. Each region has developed its own set of actions. The most active regions are described below:

Basque Country

- Department of Industry, Trade and Tourism of the Basque Country
- Main strategies include:
 - Industrial Policy Plans [Competitiveness Program]
 - Innovation Plans
 - Cluster Agreements
 - Competitiveness Plan
- SPRI (Regional Development Agency from now onward RDA)
- Main strategies include:
 - Cluster Action Plans
- Department of transport and public works

Catalonia

- Department of Industry, Commerce and Tourism
- Main strategies include:
 - Micro-clusters reinforcement programme
- CIDEM (RDA)
- Main strategies include:
 - Innovation Plan
- COPCA (Promotion Chamber)
 - Cluster Reinforcement Initiatives
- Industrial Forecasting Observatory
- Main strategies include:
 - Industrial Cluster Mapping and Priorization
 - Competitiveness Strengthening SME Plan
- 22@ Innovation District
- Main strategies include:
 - Cluster formation
 - Cluster Reinforcement Initiatives

Galicia

- Department of Industry
- IGAPE (RDA)
- Main strategies include:
 - Technological investments
 - Co-operation projects

Navarra

- CEIN (RDA)
- Main strategies include:
 - Navarran Technological Plan

Madrid

- IMADE (RDA)

- Main strategies include:
 - Competitiveness Reinforcement Initiatives

Valencia Region

- Department of Economy
- Mains strategies include:
 - Valencian Agreement for Employment 1996-2000
 - Valencian Agreement for Growth and Employment 2001-2006
 - Competitiveness Reinforcement Initiatives
 - Valencian Business Competitiveness Plan
 - Industry Business Competitiveness Plan

These organizations do not have cluster policy development as their only task, as they are responsible for such issues as economic promotion, trade, tourism, investment attraction, transportation, employment, etc.

Sources:

- Ahedo, M. Cluster Policy in the Basque Country (1991-2002): Constructing Regional Industry-Government Collaboration through Cluster-associations. European Planning Studies.
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1.2.2 National cluster programmes

Programme name: National Cluster Mapping

- Financing:
 - Source of programme financing: Ministry of Industry, Tourism and Trade through the Directorate General for Small Medium Enterprise Policy (DGPYME)
 - Time horizon: Completion expected in 2007
- Actors:
 - Programme initiator: Ministry of Industry
 - Carried out by: DGPYME, which was not formed for this purpose and does have other tasks apart from this programme, such as economic promotion, trade, tourism, etc.

- Scope and target:
 - Geographic coverage: All autonomous regions in Spain
 - Policy focus: Industrial and enterprise policy
- Programme contents:
 - Mapping of all clusters within the Spanish territory and the information obtained will be put on a web site that includes a database where business are identified and classified.
 - Prioritised areas: Clusters
 - Ambitions/goals: map all clusters within the Spanish Territory and define which ones should be developed according to their importance in the Spanish economy.
 - Target groups: clusters
 - No particular focus on SMEs
 - Level of R&D involvement: none
 - The programme offers the projects financing and execution
 - No cross-country/interregional activities
- Process:
 - Based on appointments
 - Top down approach
- Evaluation:
 - Planned future: Set up a website that includes a database where business are identified and classified.

Source: Personal Interview with DGPYME representative Paloma Perez.

Programme name: Innovative Business Groupings (IBG) identification and registration

- Financing:
 - Source of programme financing: DGPYME
 - Time horizon: Long term
- Actors:
 - Programme initiator: DGPYME
 - Carried out by: DGPYME, which was not formed for this purpose and has other tasks apart from this programme, such as economic promotion, trade, tourism, etc.
- Scope and target:
 - Geographic coverage: All autonomous regions in Spain
 - Policy focus: Science and technology policy
 - Clusters in a certain stage of the lifecycle are not targeted
- Programme contents:
 - Identification and labelling of IBGs in the sectors of: business, centres of education and public or private research units
 - Prioritised areas: Business, Centres of Education and Public or private research units
 - Ambitions/goals: Launch individual initiatives for the identified IBGs

- Target group: IBGs
- Concerning IBG, a Ministerial regulation has been recently approved. This regulation aims at implementing the policy for supporting the innovation activities and the competitiveness of business, especially SMEs that belong to such groupings.
- Level of R&D involvement: none
- The programme offers the projects: financing and execution
- No cross-country/interregional activities
- Process:
 - Based on appointments
 - Top down or bottom-up approach in selection of clusters to support: top down although in the future there will be calls for labelling and supporting, through grants, some activities of the IBGs.
- Evaluation:
 - Planned future: In the near future there will be several calls for labelling and supporting, through grants, some activities of the IBGs which include: strategic plan of the IBG, coordination structure of the IBG and some high value added common projects of the IBG. The intensity of the support measure could reach 75% of total costs of the approved project.
 - Concerning IBG, a Ministerial regulation has been recently approved. This regulation aims at implementing the policy for supporting the innovation activities and the competitiveness of business, especially SMEs that belong to such groupings.
 - It has the following long term objectives: To support the growth of existing or embryonic regional clusters and to achieve a collaboration between the State and the Regional Administrations for the identification and labelling of the Innovative Business Groupings

Source: Personal Interview with DGPYME representative Paloma Perez.

1.2.3 Regional cluster programme

Programme name: Basque Competitiveness Programs

- History:
 - There have been different Basque Competitiveness Programs since 1991, although not exclusively linked to cluster initiatives
 - 1991: Basque competitiveness programme
 - 1991-1995 and 1995-1999: Industrial Policy
 - 2000-2003: Interinstitutional Plan for Economic Promotion
 - Today: the Basque Competitiveness and Social Innovation Programme
- Financing:
 - Source of programme financing:
 - Department of Industry, agriculture and fishing (initial programme financing)
 - Department of Industry, Trade and Tourism (supporting 12 cluster associations)

- Department of Transport (supporting 1 cluster association)
- Evolution in the regulatory relationship between the regional government and cluster associations:
 - First: cluster collaborative agreements were signed between the Department of Industry and each Cluster Association.
 - Since 2000, in addition to those agreements: “Orden del Departamento de Industria, Comercio y Turismo, (Orden del 28 de noviembre del 2000)” to regulate the Basque Government financial support to each Cluster Association.
- Time horizon:
 - The cluster policy started in the beginning of the nineties and set long term objectives that are still being pursued nowadays.
 - The cluster agreements among each Cluster Association and the Department of Industry, trade and Tourism are signed on a yearly basis.
- Actors:
 - Programme initiators: see source of programme financing above.
 - Carried out by Cluster Associations, which group together companies, universities, training centres, technology centres and public actors (Municipalities, Deputations and different departments of the Basque Government).
 - Was the actor formed for this purpose:
 - In some cases, industry associations existed already before the launch of the Cluster Policy and were the initiators of the initiatives. Machine-tools, Port of Bilbao, Maritime and Telecommunications were the associations that existed beforehand and transformed themselves to have a cluster approach.
 - In other cases, Cluster Associations were created for this purpose.
 - The main role of Cluster Associations is to act as facilitators in order to improve the competitiveness of the cluster through cooperation. In other words, they organize all their activities to reach this objective.
- Scope and target:
 - Geographic coverage: Basque Country
 - Policy focus of the regional policy: To improve the competitiveness of priority clusters through cooperation among its members.
 - The supported clusters are at different stages of their lifecycle.
 - First, some priority clusters were defined by a Monitor Company Assessment.
 - Then, the Basque government established a competitiveness programme that supported 9 priority clusters supervised by workgroups constituted by business personalities, government representatives, industrial association leaders, and other institutions (education, research, etc.).
 - These workgroups defined priority improvement areas and action proposals in the 9 priority clusters: home appliances, machine-tools, and value-added steel (indicated by Monitor), the shipment and manipulation cluster connected to the port

of Bilbao, aeronautics, paper, automotive components, tourism and food.

- Programme contents:
 - Set up private-public working groups per cluster and constitute Cluster Associations
 - Activities: Strategic reflections, consensus building, creation of formal committees, designing action plan mainly in the areas of technology, internationalization and quality management.
 - Ambitions/goals: To improve the competitiveness of the clusters through cooperation.
 - There is a particular focus on SMEs in the sense that Cluster Association members are mostly SMEs
 - Level of R&D involvement: R&D Centres participate in the work groups and are members of Cluster Associations
 - No cross-country/interregional activities
 - The Basque government provides support for 60 % of the internal costs and 50 % of external costs, to a maximum of 240 000 euros for each cluster association. In addition, projects can be financed through other regional policy tools related to internationalisation, technology, quality, etc. Technicians of the Department of Industry participate directly in all the committees of each Cluster Association.
- Process:
 - To receive the financial support, each Cluster Association has to present each year an annual plan and a Strategic Plan for 3 or 4 years.
 - Initially, the cluster selection was a top-down approach, but soon after this first step, the Basque government transferred the responsibility of cluster initiatives to the private sector. After the initial cluster selection process, some new cluster initiatives were launched through a bottom-up approach.
- Evaluation:
 - The Basque cluster policy has succeeded in generating cooperation opportunities among private agents and among private and public agents in strategic areas. This has resulted in better knowledge and adoption of public policies by the industry, firms and other stakeholders.
 - During 2004 and 2005, each Cluster Association went through a strategic reflection, with the objective to assess the results achieved so far and elaborated new strategic plans and action lines based on this strategic reflection.

Sources:

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Programme name: Cluster Mapping

- Financing:
 - Source of programme financing: Department of Industry, Commerce and Tourism
 - Time horizon: 1 year
- Actors:
 - Programme initiator: Department of Industry, Commerce and Tourism
 - Carried out by The Monitor Group and of Industry, Commerce and Tourism
 - The actor was not formed for this purpose and does have other tasks apart from this programme: consulting services
- Scope and target:
 - Geographic coverage: Catalonia
 - Policy focus: Industrial and enterprise policy
 - The objective was to identify all clusters.
- Programme contents:
 - Conduct a study of the competitiveness in Barcelona (cluster mapping). The report was based on both hard and soft data and was conducted in collaboration with institutional actors and government representatives.
 - Activities – prioritised areas: The purpose was to define the areas to be prioritised.
 - Ambitions/goals: Define the industries within the Catalan economy that would serve as drivers for economic growth.
 - No particular focus on SMEs
 - Level of R&D involvement: None
 - The programme offers the projects: Conduct the competitiveness assessment.

- No cross-country / interregional activities
- Process:
 - Top down approach
- Evaluation:
 - The project identified eight relevant industries and their respective micro-clusters.
 - Planned future: Launch individual initiatives for the different micro-clusters identified and prioritised.

Source: Duch, E. and Rubio, X. Els avantatges competius de Catalunya. Nota de economia.

Programme name: Micro-clusters reinforcement programme

- Financing:
 - Source of programme financing: Department of Industry, Commerce and Tourism
 - Budget: Each micro-cluster initiative in the beginning cost approximately €20,000, then they ranged between €100,000 – €120,000
 - Time horizon: several initiatives were launched between 1993-2004
- Actors:
 - Programme initiator: Department of Industry, Commerce and Tourism
 - Carried out by The Cluster Competitiveness Group S.A. in collaboration with local industry associations
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme, such as consulting services
- Scope and target:
 - Geographic coverage: Different municipalities within Catalonia
 - Policy focus: industrial and enterprise policy
 - The different initiatives worked with different types of clusters, from emerging to mature sectors.
- Programme contents:
 - A methodology based on a process of interaction, meetings and collective reflections was used. Once a micro-cluster was clearly defined (identifying the specific business segment), three steps followed: 1 Definition of future challenges: information gathering and interaction of actors. 2 Consensus-based future vision. 3 Definition of lines of action.
 - Activities – prioritised areas: textile, clothing and leather industry; wood, furniture and cork industry; paper, publishing and graphic-arts industry; chemical industry; plastics industry; metallurgy and metal-products industry; machinery and mechanical-equipment industry; and electrical-and electronic-equipment industry.
 - Ambitions/goals: improve the competitiveness of the prioritised industries

- Some of the prioritised industries are formed mainly by SMEs
- Level of R&D involvement: Some actions involved R&D
- The programme offers the projects financial aid
- No cross-country / interregional activities
- Process:
 - Top down approach
- Evaluation:
 - By 2004, there were 30 initiatives in total (representing 60% of the industrial GDP). In most cases, an institution for collaboration was suggested or promoted. This institution could be either an existing association or was an organization specifically created for such a task.

Source: Conejos, J., Duch, E., Fontrodona, J., Hernández, J.M., Luzárraga, A., and Terré, E. Cambio estratégico en Cataluña. Barcelona, Gestión 2000.

Programme name: Competitiveness Strengthening SME Plan

- Financing:
 - Source of programme financing: Ministry of Employment and Industry
 - Budget: €140,000 per initiative
 - Time horizon: Long term
- Actors:
 - Programme initiator: Industrial Forecasting Observatory (OPI)
 - Carried out by Industrial Forecasting Observatory (OPI)
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme, such as industrial promotion
- Scope and target:
 - Geographic coverage: Catalonia
 - Policy focus: Industrial and enterprise policy
 - The different initiatives worked with different types of clusters, from emerging to mature sectors.
- Programme contents:
 - First in 2005, the Observatory published the results of an industry specific cluster mapping that identifies 42 industrial clusters in Catalonia that account for 10% of the Catalan GDP and 26% of the Catalan industrial establishments and employs 235,000 people. The observatory then developed a prioritization system to launch individual cluster competitiveness reinforcement initiatives (in line with what was done in the early 90s but with a more in depth scope).
 - Activities – prioritised areas: food and drink industry; transportation-equipment industry; textile, clothing and leather industry; wood, furniture and cork industry; paper, publishing and graphic-arts industry; chemical industry; plastics industry; metallurgy and

metal-products industry; machinery and mechanical-equipment industry; and electrical-and electronic-equipment industry.

- Ambitions/goals: improve the competitiveness of the prioritised industries, specially SMEs
- Focus on SMEs: The goal is to improve the competitiveness of the prioritised industry, with a specific focus on SMEs.
- Level of R&D involvement: None
- What the programme offers the projects: First an assessment study and a prioritisation mechanism and then direct financing.
- No cross-country / interregional activities
- Process:
 - Top down approach
- Evaluation:
 - Planned future: launch individual initiatives for the clusters that the prioritization mechanisms suggests

Source: Pezzi, Alberto; Fontrodona, Jordi and Hernández, Joan Miquel. Map of Local Industrial Production Systems in Catalonia. 2005

Programme name: Strategic Agreement for Internationalization, Labour Quality and Economic Competitiveness of the Catalan Economy

- Financing:
 - Source of programme financing: The Consortium for the Commercial Promotion of Catalonia (COPCA)
 - Budget: Approximately €150,000 per cluster initiative.
 - Time horizon: long term
- Actors:
 - Programme initiator: COPCA
 - COPCA hires a specialized consulting firm for each initiative.
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme
- Scope and target:
 - Geographic coverage: Catalonia
 - Policy focus: Industrial policy
 - On a case by case basis, sometimes clusters at a certain stage are specifically targeted.
- Programme contents:
 - An individual reinforcement initiative provides firms with a deeper understanding of their positioning, facilitating strategic change, and defining concrete steps to enhance cluster competitiveness.
 - Ambitions/goals: Cluster companies will obtain access to competitive analysis that will inform them of their strategic decisions and improve their competitive position.
 - Focus on SMEs: Clusters are perceived to be primarily constituted by SMEs, so in a way the policy itself has particular focus on SMEs.
 - The programme offers the projects direct financing

- No cross-country / interregional activities
- Process:
 - Top down approach
- Evaluation:
 - An evaluation is currently taking place.

Source: Personal Interview with COPCA representative Albert Sole.

Programme name: Shared Services Cluster Competitiveness Reinforcement Initiative

- Financing:
 - Source of programme financing: 22@ Innovation District, Barcelona Municipality and CIDEM (RDA)
 - Budget: €100.000
 - Time horizon: 6 months
- Actors:
 - Programme initiator: 22@ Innovation District
 - Carried out by: The Cluster Competitiveness Group, S.A.
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme
- Scope and target:
 - Geographic coverage: Barcelona and surroundings
 - Policy focus: Enterprise Policy
 - The initiative focuses in an emerging cluster in Barcelona, that is yet to be properly defined and which constitutes one of the objectives of the program.
- Programme contents:
 - The programme consisted of two parallel processes, 1. Strategic analysis and 2. Interviews and workshops.
 - Ambitions/goals: 1. Understand the sector. 2. Launch successful action lines that improve the overall competitiveness of the sector. 3. Understand why companies choose Barcelona as a destination to set their shared services centres. 4. Incorporate local ICT SMEs in the value chain of the cluster.
 - One of the objectives was to incorporate local ICT SMEs in the value chain of the Shared Services Cluster.
 - One of the workshops revolved around R&D.
 - The programme offers the projects financing and provision of spaces to conduct workshops and public meetings
 - Cross-country/interregional activity: A benchmarking trip was conducted to learn from Zurich's experience.
- Process:
 - Top down approach
- Evaluation:

- A survey was conducted at the beginning of the project and a second one is expected to be carried out in the second year in order to compare the evolution and results of the initiative.
- Action lines resulting from the different workgroups conducted will be financed by the companies involved.

Source: Personal Interview with 22@ representative Oriol Alcoba.

Programme name: Competitiveness Reinforcement Initiatives

- Financing:
 - Source of programme financing: co-financed by the Department of Economy and local savings banks; in particular the Mediterranean Savings Bank played a major role.
 - Budget: Each initiative ranged from €100,000 and €150,000
 - Time horizon: 1997-2006
- Actors:
 - Programme initiator: Department of Economy, who hired specialized consulting firms to carry out the work
 - Carried out by: The Cluster Competitiveness Group played an important role.
 - The actor was not formed for this purpose
 - The actor does not have other tasks apart from this programme
- Scope and target:
 - Geographic coverage: Valencia Region
 - Policy focus: Industrial Policy
 - The different initiatives worked with different types of clusters, from emerging to mature sectors.
- Programme contents:
 - Each initiative lasted approximately 5-6 months, divided in three main faces, each consisting of two different kinds of processes (strategic and change management): 1. Strategic process: definition of the cluster and industry evolution. Change management process: involving the agents. 2. Strategic process: strategic options and competitiveness determinants. Change management process: consensual vision for the future. 3. Strategic process: definition of action lines and steps to be followed. Change management process: launching action lines.
 - Prioritised areas: toys, ceramic tiles, home textiles, marble processing, nougat, footwear and furniture.
 - Ambitions/goals: Following a similar methodology the Catalan Government had been using, the initiatives' objective was to provide the clusters a strategic analysis that would help them identify their main challenges, the strategic options available to face these challenges and deciding the action lines to be carried out.
 - The clusters selected are primarily formed by SMEs
 - Level of R&D involvement: None

- The programme offers the projects financing and lobbying with local saving banks to get funding.
- Cross-country/interregional activity: Benchmarking trips were carried out to learn from successful similar clusters.
- Process:
 - Top down approach
- Evaluation:
 - The information generated throughout the initiatives served the Valencian Government as direct feedback to shape industrial horizontal policies. In sum, Competitiveness Reinforcement Initiatives allowed the Government to study the productive sectors from a local perspective and identify the main issues the companies were facing. At the same time, a consensual action plan was achieved through a profound knowledge of the different activities of the companies and by the close collaboration between the different agents. Each initiative included a monitoring service in order to verify the adequate implementation of the action lines.

Source: Generalitat Valenciana. Iniciativa de refuerzo de la competitividad del cluster del mármol en el Vinalopó Mitjà.

Programme name: Cluster Initiatives Up Dating Programme

- Financing:
 - Source of programme financing: Department of Economy
 - Budget: €315,000
 - Time horizon: 1 year
- Actors:
 - Programme initiator: Department of Economy
 - Carried out by: The Cluster Competitiveness Group, S.A.
 - Was the actor formed for this purpose, and if so, when?: No
 - Does the actor have other tasks apart from this programme?: Yes
- Scope and target:
 - Geographic coverage: Valencia Region
 - Policy focus: Industrial Policy
 - It was a programme that aimed to update the initiatives, so it can be said it was addressed to mature clusters.
- Programme contents:
 - follow up each of the initiatives, letting the government verify if the different action lines were eventually implemented and measure their impact. Specifically: 1. Resume direct communication with the companies. 2. Establish a permanent communication channel between the government and the clusters. 3. Demonstrate a long term commitment. 4. Strengthening the collective feeling among companies. 5. Monitor the action lines. 6. Provide update information about the clusters' health. 7. Identify new areas for improvement.
 - Ambitions/goals: Bring up to date the strategic context and asses the strategic options that were proposed at the time, either to continue or modify accordingly.

- The clusters selected are primarily formed by SMEs
- Level of R&D involvement: Low
- The programme offers the projects financing
- No cross-country/interregional activities
- Process:
 - Top down approach
- Evaluation:
 - Individual Cluster Competitiveness Initiatives have been actively used by the Valencian Government to enhance the competitiveness of companies. The strategy has proven to be helping collaborative efforts among companies, encouraging the government to continue its' cluster strategy and up-date past efforts. Additionally, it is important to mention the existence of a Valencian Business Competitiveness Plan and Industry Business Competitiveness Programs that overlap with some instances of the Competitiveness Reinforcement Initiatives, but have a clear industry orientation/approach.

Source: Generalitat Valenciana. Pacto Valenciano por el crecimiento y el empleo 2001-2006.

Programme name: Identification of potential clusters in Navarra

- Financing:
 - Source of programme financing: Business and Innovation European Centre of Navarra (CEIN)
 - Time horizon: 1 year
- Actors:
 - Programme initiator: Department of Industry, Technology, Trade and Labour of Navarra
 - Carried out by CEIN
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme
- Scope and target:
 - Geographic coverage: Navarra
 - Policy focus: Industrial Policy
 - Clusters in a certain stage of the lifecycle are not targeted
- Programme contents:
 - Mapping of all clusters within Navarra.
 - Ambitions/goals: Identify which sectors should be prioritized by the Navarra Government.
 - No particular focus on SMEs
 - Level of R&D involvement: None
 - The programme offers the projects financing and conducting the study.
 - No cross-country/interregional activities
- Process:
 - Top down approach

- Evaluation:
 - The study published in August 2006 identified 10 potential clusters: 1. biotechnology; 2. transportation and logistics; 3. recreation, culture and tourism; 4. ICT; 5. automotive; 6. renewable energies; 7. health; 8. agro business; 9. machinery equipment and 10. Air quality systems.
 - Planned future: Launch individual projects for the identified potential clusters.

Source: CEIN. Clusters potenciales en Navarra. 2006

Programme name: Formal Constitution of the Wood Cluster

- Financing:
 - Source of programme financing: Department of Industry, Galicia Industrial Quality and Technological Development Foundation, CIS-Madera and Vigo University
 - Time horizon: Long term
- Actors:
 - Programme initiator: Department of Industry
 - Carried out by the Department of Industry, Galicia Industrial Quality and Technological Development Foundation, CIS-Madera and Vigo University
 - The actor was not formed for this purpose
 - The actor has other tasks apart from this programme
- Scope and target:
 - Geographic coverage: Galicia
 - Policy focus: Industrial policy
 - Mature clusters are targeted
- Programme contents:
 - Four work committees were formed, that represented the main activities of the value chain. Each committee held several sessions with all the relevant stakeholders and agreed on the best ways to formally constitute the cluster.
 - Ambitions/goals: Improve the competitiveness of the companies that form part of the cluster, fostering collaboration and participation to define future collaborative action lines. Particular attention was paid to those links within the value chain that could be perceived as weak or non existent within the cluster in order to improve them.
 - No particular focus on SMEs
 - Level of R&D involvement: None
 - The programme offers the projects financing and the physical space where the actors got together.
 - No cross-country/interregional activities
- Process:
 - Top down approach

- Evaluation:
 - Today, the cluster is formally constituted and several collaborative projects have been launched.
 - Planned future: Launch specific projects as a cluster.

Source: El Cluster de la Madera de Galicia como Instrumento de Integración y Cooperación para la Mejora Competitiva.

1.2.4 Successful cluster programmes

Basque Cluster Programmes

Three key factors that make the Basque Cluster policy successful are:

1. **Governance:** Cluster Associations have a close relationship with the Basque government. Government representatives attend cluster association meetings on a regular basis in order to have a general perspective of each cluster association (vertical) and each strategic area (horizontal). This method guarantees that there is at least one government representative that has a general perspective on each cluster and the different strategic areas, which enables the Government to shape adequate horizontal policies. The Government has direct feedback on main problems, activities and relationships within the cluster, which not only is beneficial for designing industry policy but it can serve to evaluate the competitiveness programme.
2. **Integration:** Quality, technology and internationalisation policies are efficiently integrated. Government representatives from each area have information on each cluster, which eliminates any possible policy duplicities. The fact that these representatives work on the same department facilitates the coordination of cluster policy.
3. **Continuity:** Cluster policy has been used in the Basque country since 1991 with no relevant modifications over time. Despite changes in the person in charge for clusters – The Director of Cluster Policy – the original mission to provide strategic information, identify synergies and generate cooperation groups has been maintained all these years.

1.3 Cluster policies

Above the level of agencies and programmes is the policy level. On the policy level, plans and strategies are developed in the form of policy documents, directives and legislation, rather than concrete programmes and organisations.

There may be one overarching policy for clusters, a “cluster policy”, outlining specifically how cluster development should be pursued. In addition, clusters may form a framework in a long range of policy fields. Primarily, this is often the case in three key areas: innovation and technology policies, regional economic development policy, and entrepreneurship/SME policy. However, it can also occur in many other policy areas.

1.3.1 Overarching cluster policy

Up until 2006, cluster policy in Spain had been a Regional Government led initiative. In 2006 The Spanish national government designed a cluster policy, comprising a set of activities aiming to strength business networking and to encourage collaboration between firms and local knowledge creation units and technology transfer organisations. The policy is being implemented by the following measures:

- a. A Spanish Business Promotion Plan, that aims at reinforcing innovation and business competitiveness. Among other measures, it includes support to innovative clusters.
- b. A ministerial regulation, from the Ministry of Industry, Tourism and Trade, addressing to identify and to label existing innovative clusters.

At the regional level, several regions have included within their industrial and technological plans a framework for cluster operability, distinguishing among the others, the Basque and Valencia region, that have defined long term well structured cluster development plans.

In Spain, two kinds of cluster maps have been elaborated, which have highlighted the benefits of using a cluster approach for developing the competitiveness of a region:

- c. A map of regional clusters based on the Marshallian concept of industrial districts. In this map, 142 so-called industrial local systems have been identified, mostly specialised in rather traditional, labour intensive and low technology industries.
- d. The other is a project, to be completed in 2007, of a cluster map combining three types of classification methodology: 1 The Porter concept. 2 The Delaunay system and 3 SITEDEC, a qualitative method based on the information of business obtained from a survey, using information from regional administrations.

Source: Personal Interview with DGPYME representative Paloma Perez.

At a national level, cluster policy aims at reinforcing innovation and business competitiveness. At a regional level cluster policy has typically addressed areas such as regional economic development, promoting innovation and technology, internationalization and cluster specific.

Sources:

- Duch, E. and Rubio, X. Els avantages competitus de Catalunya. Nota de economia.
- Navarro, M. Análisis y Políticas de Clusters: teoría y realidad. Revsita Vasca de Economía.
- Generalitat Valenciana. Iniciativa de refuerzo de la competitividad del cluster del mármol en el Vinalopó Mitjà.
- Genealitat Valenciana. Pacto Valenciano por el crecimiento y el empleo 2001-2006.

Unlike the regional level, at a national level up until 2006 there had been no real cluster policy efforts. At the regional level both the Basque and Catalan regions were pioneers in incorporating the cluster approach for economic development.

In 1986, the Basque Minister for Labour and Health met M. Porter, who at the time was developing what would become the key reference to understand cluster theory – The Competitive Advantage of Nations. – In 1990, Porter and the Monitor Group were commissioned by the Basque government to conduct a study to analyse the

strengths and weaknesses of the Basque economy, one of the very first cluster initiatives ever implemented.

In 1990, the Catalan Department of Industry, Trade and Tourism through the Catalan Finance Ministry commissioned the Monitor Group to conduct a study of the competitiveness in Barcelona (mapping).

Sources:

- Aranguren, J., Larrea, M., Navarro, I. and Navarro, M. Cluster versus spatial network supporting policies: learning from experience in the Basque Country. Deusto University.
- Navarro, M. Análisis y Políticas de Clusters: teoría y realidad. Revista Vasca de Economía.

At the regional level, specifically Catalonia, the Basque Country and Valencia Region, the Department of Industry has been the institution typically responsible for fostering cluster initiatives. In the case of Catalonia, cluster policy is associated with CIU political party (center-right). Cluster policy in other regions has been less structured and often isolated experiences.

Source: Personal interview with Mr. Emiliano Duch, which has led several cluster initiatives within Spain.

1.3.2 Clusters as framework in key policy areas

Innovation and technology policy

Innovation and technology policy in Spain focuses in 6 main areas: R&D Projects, Human resources for R&D, technological transfer, scientific and technological infrastructure, international cooperation and scientific and technological culture. The main governing body in charged for innovation and technology policy at the national level is the Science and Education Ministry and has two main executing bodies, the Secretary for Scientific and Technological Policy and the State Secretary for Universities and Research. Clusters have not formed part of the national innovation and technology policy.

At the regional level, cluster policy has been effectively incorporated into innovation and technology policy. In the Basque Country each of the clusters formally constituted have been in asked in two consecutive terms, to formulate a Technological Plan which have later been incorporated into the Basque government's Innovation Plans.

The Navarran Technological Plan, the main instrument to incorporate information & communication technologies in Navarran industries, already made a strong push to use the cluster approach as the main driver to improve ICT conditions in Navarra. The plan contemplated the creation of an ICT and biotechnological clusters, mobilizing the different actors and future collaboration with other Navarran clusters.

Source: Instituto Vasco de Competitividad

Regional economic development policy

Given the high degree of autonomy Spanish regions have, each regional government is in charge to oversee economic development policy. Selected examples are given from those regions that throughout history have been the most active incorporating cluster policy as a means to achieve economic development.

In the Basque Country, the Department of Industry, Trade and Tourism is responsible for the region's economic development. The Basque Industrial Policy Plan is an

institutional plan for economic promotion that integrates areas such as commerce, tourism, energy, and inter-firm cooperation. The Plan gives high degree of responsibilities to local authorities; clusters do not receive special treatment, but are recognized as a means to achieve effective industry collaboration.

The Department of Industry, Commerce and Tourism of Catalonia, through the Industrial Pact of the Barcelona Urban Region, which was one of the main local development policies in Catalonia, carried out between 1998-2004 30 cluster specific initiatives (representing 60% of the total industrial GDP). With the entrance of a new government party, cluster policy has been reshaped and is no longer centralized by the Department of Industry, Commerce and Tourism. Economic development policy in Catalonia has consisted of small-scale actions and initiatives in concrete and localized micro-clusters, helping to reinforce a deeper tradition, public-private collaboration at the industry level.

The Valencian Agreement for Growth and Employment 2001-2006 is regarded as the backbone of the new Valencian regional development policy. It focuses in the following areas: economic development and business activity, labour market, cooperation and social economy and social welfare. The Plan picked up where the previous Valencian Agreement for Employment 1996-2000 had left off. It continued to promote cluster theory as a means to foster local economic development and local business activity. Cluster initiatives were launched for marble processing, nougat and footwear, following a similar approach and financial structure as previous initiatives. As the Valencia Government has always clearly state, cluster initiatives complement other industrial and development policies of a larger scale, they don't substitute them. Their aim has not only been to secure the present competitiveness performance of Valencian companies, but to assure their sustainability in the future in an ever-changing business environment.

Entrepreneurship and SME policy

DGPYM, which forms part of the Industry, Commerce and Tourism Spanish Ministry is responsible for SME policy focusing in the following areas:

Small, Medium Enterprise Support

- Design an application of support and promotion policies for SMEs.
- Conduct studies and collecting SME statistical related data.

Small, Medium Enterprise Financial Support

- Specific financial resources and technical funding support for SMEs.
- Coordinating different programs for SME financial support.
- Designing programs to provide SMEs with better human resources.

Business Creation

- Designing and implementing policies oriented to creating new business
- Concrete business creation policies
- Specific policies aimed at simplifying administrative procedures between government and SMEs

Regarding cluster policy, DGPYME has designed a cluster policy, comprising a set of activities aiming to strengthening business networking and encouraging collaboration between firms. It is in favour of restricting the concept of innovative clusters as Innovative Business Groupings (IBG). In the process of identification and labelling innovative clusters, two steps have been defined:

- a. The identification of the Spanish clusters that comply with such definition of Innovative Business Groupings (IBG)
- b. The creation of a new registration for IBG

This registration will be used to label innovative clusters and also to support in the future the innovative clusters that comply with the requirements of a specific regulation. Concerning IBG, a Ministerial regulation has been recently approved. This regulation aims at implementing the policy for supporting the innovation activities and the competitiveness of business, especially SMEs that belong to such groupings. It has the following long-term objectives:

- To support the growth of existing or embryonic regional clusters.
- To achieve a collaboration between the State and the Regional Administrations for the identification and labelling of the Innovative Business Groupings.

Following the Ministerial Regulation on IBGs, there will be several calls for labelling and supporting, through grants, some activities of these clusters. The aids will be approved by a Committee, which is chaired by the DGPYME General Director. The activities to be supported are:

- Strategic plan of the IBG.
- Coordination structure and governance of the IBG.
- Some high value added common projects of the IBG.

The intensity of the support measure could reach 75% of total costs of the approved project. The evaluation criteria for the projects are, among others:

- Quality and extent of the strategic plan.
- Feasibility of the project.
- Participation of local and regional administrations in the project.
- Global economic impact as well as local and regional impact.

Source: Personal Interview with DGPYME representative Paloma Perez.

1.3.3 Clusters as framework in various policy areas

Business network policy

The Spanish national government has designed a cluster policy, comprising a set of activities aiming to strengthening business networking and to encouraging collaboration between firms and local knowledge creation units and technology transfer organisations. The policy is being implemented by the following measures:

- A Spanish Business Promotion Plan, that aims at reinforcing innovation and business competitiveness. Among other measures, it includes support to innovative clusters.

- A ministerial regulation, from the Ministry of Industry, Tourism and Trade, addressing to identify and to label existing innovative clusters
- In the future, there will be several calls for proposals aimed to implementing the support measures to such innovative clusters.

Source: Personal Interview with DGPYME representative Paloma Perez.

FDI attraction policy

At the regional level, several autonomous communities have used the presence of clusters within their territory as a marketing tool to attract FDI to specific industries. Examples of such approach have been the case in Galicia for the automotive cluster, in Bilbao for the clusters formally constituted in the territory: home appliances, machine tools, automotive, telecommunications, aeronautics, etc. Regional Development Agencies of different autonomous communities have prepared several cluster specific city marketing brochures to attract new firms to a particular established cluster, such has been the Case in Barcelona for the shared services cluster, biotechnology, nanotechnology and new media.

Source: www.barcelonasharedservices.com

Export promotion policy

The Consortium for the Commercial Promotion of Catalonia (COPCA), which is formed by the Catalan Government, the Commerce and Industry Chamber and the main industry associations in Catalonia. Through the Strategic Agreement for Internationalization, Labour Quality and Economic Competitiveness of the Catalan Economy, COPCA launches cluster projects, either by request of specific associations or by directly identifying the need for a cluster initiative in a certain industry. There are special promotion packages for cluster constituted industries.

Cluster-associations in the Basque Country reached consensus-based Action Plans, mainly in the areas of technology, internationalization and management quality, and in some cases had created formal committees in these areas. In the area of internationalization the main goals were: promoting trading consortiums and trading expert advice for SMEs

Source: www.copca.com

Sectoral industry policy

All throughout Spain, many are the regions that have conducted a cluster identification analysis or process as a means to define sectoral industrial policy within their territory. Noteworthy examples are:

- The Government of Navarra commissioned the Business and Innovation European Centre of Navarra (CEIN) to identify (mapping) the potential clusters within the territory. The study published in August 2006 identified 10 potential clusters to be prioritized: 1. biotechnology; 2. transportation and logistics; 3. recreation, culture and tourism; 4. ICT; 5. automotive; 6. renewable energies; 7. health; 8. agro business; 9. machinery equipment and 10. Air quality systems.

- The Valencia Region launched several cluster initiatives, the objective was to provide the clusters a strategic analysis that would help them identify their main challenges, the strategic options available to face these challenges and deciding the action lines to be carried out. This information would serve the Valencian Government as direct feedback to shape industrial horizontal policies.
- The Catalan Government commissioned the Monitor Group to conduct a study of the competitiveness in Barcelona (mapping). It identified eight relevant industries and their respective micro-cluster. Many municipalities in the industrial area of Barcelona in the early 1990s were promoting specialization policies inspired by the industrial-districts literature, even before the Monitor Group report surfaced.

Source: Conejos, J., Duch, E., Fontrodona, J., Hernández, J.M., Luzárraga, A., and Terré, E. Cambio estratégico en Cataluña. Barcelona, Gestión 2000.

Science and education policy

Cluster initiatives in some regions actively pursue policies aimed at enhancing the links between universities and commercialisation of university re-search. In terms of the impact of cluster initiatives on education policy, the most notorious have been:

- Based on a cluster report by the Monitor Group, two main strategies were followed by the Catalan government: focused training programs in relevant areas for the Catalan Industry and fostering cooperation between firms and institutions, both private and public.
- Some of the action lines that resulted from several micro-cluster initiatives in Catalonia have had as result the setting up of specific cluster related training programmes.

Competition and market integration

Cluster policies all across Spain have been primarily used to foster competition and collaboration among companies. At a national level, the recently launched IBG (Innovative Business Groupings) Policy has as main objectives to encourage collaboration between firms and local creation units; and reinforcing business competitiveness. IBGs will also foster competition among clusters for the resources available, and that will be assigned by different calls for proposals.

Source: Personal Interview with DGPYME representative Paloma Perez.

1.4 Cluster or competitiveness councils

In some countries, councils have been set up to promote a dialogue about clusters and competitiveness. Often, these councils have representatives from the government sector as well as from the academic world and the business community.

Barcelona is home to the Competitiveness Institute (TCI), not-for-profit alliance of cluster practitioners. Its membership base is more than 800 leading practitioners from all levels of governments and from the private sector, coming from more than 40 countries. By sharing knowledge and experience members gain access to leading

insights and expertise and the most recent global developments in competitiveness theory.

TCI hosts its annual conferences in outstanding locations around the globe. Members join together to share ideas, build alliances and explore the best models of economic development. Additionally information is offered about specific clusters, introductory courses on cluster theory and presentations given by an array of world experts. TCI is supported by a number of organizational members. These are mainly non-profit organizations, government agencies, or multilateral organizations dedicated to fostering economic development and interested in clusters, innovation systems and competitiveness issues.

Source: <http://www.competitiveness.org/>

1.5 Other policy issues

Sometimes it is useful to know about any other issues that have an impact on clusters in a country. Such issues could be, for example, any macro economic policies that may be relevant for clusters (tax regimes, etc), or if any general evaluation has been made about the country's competitiveness and barriers to competitiveness.

In Spain, Autonomous Regions have been empowered competencies over industrial, business and innovation policy areas, areas traditionally associated with cluster development. The national government has kept powers in macro-economic regulation, large public services, science policies, etc. This decentralization process has not established clear coordination mechanisms among the different levels of government. Consequently, within a regulatory framework at a national level, across regions there have been both: (1) similar institutional policy frameworks, such as the constitution of Regional Development Agencies, growing support for Small and Medium-sized enterprises, fostering innovation, etc.; and (2) different policy development, as each regional government has developed their own policies based on the regions' business characteristics. In general, various Spanish regions have experimented with different forms of regional industry-government collaboration, some of them under a cluster-policy approach.

Source: Ahedo, M. Cluster Policy in the Basque Country (1991-2002): Constructing Regional Industry-Government Collaboration through Cluster-associations. European Planning Studies.

In Spain we can clearly distinguish two different models for cluster development. On one side, some regions have launched scattered / isolated cluster initiatives, that did not form part of a well structured plan and that had no future actions contemplated and on the other, cluster programmes with long term objectives, consisting of different phases for implementation. Cluster policy evolution in this case has been consistent over time.

At a national level, the main obstacle for building cluster policy is that Spain's Autonomous Regions have been transferred competences over regional economic development, and the national government has not been a key player in the cluster field. However in 2006, the National Government launched a cluster policy that promises to be part of a long term programme.

Obstacles at the regional level have been typically related with the fact that there is no long term commitment from the authorities, with few notable exceptions (Basque Country, Catalonia and Valencia Region), which have resulted in scattered initiatives

and that have not been able to individually demonstrate the advantages of the cluster approach.

Spain was one of the early adopters of cluster policies, for this reason the academic world is familiarized with the concept and advantages of clusters. Additionally, many of the government officials that were responsible to start using the cluster approach, have always have strong links to the academic world and in many cases a direct link with Professor Michael E. Porter.

Generally, a cluster mapping or competitiveness assessment of the region was conducted before any individual initiative was implemented.