

# **“Theory and practice of cluster policies”**

**Brussels, 18 April 2011**

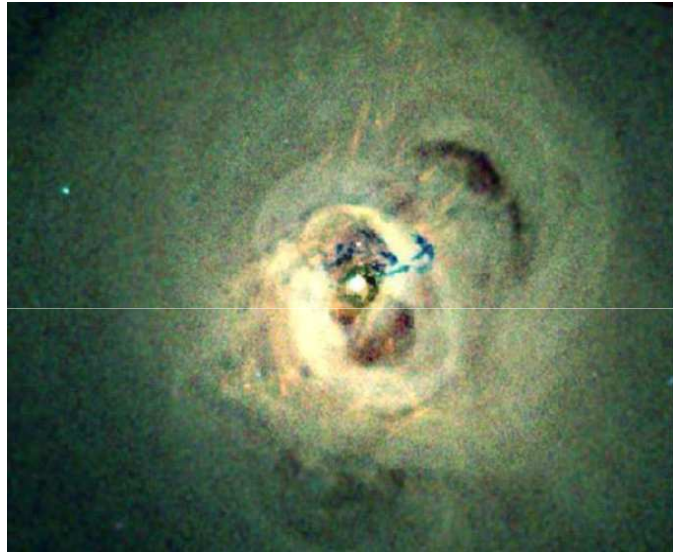
**“Making Cities and Regions Fit for  
Innovation:  
Research Needs and Policy Perspectives”**

**JIIP Symposium 2011**



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❖ Clusters and industrial specialisation have been in interest of researchers since **19th century**.

❖ From **Ricardian** concept of **comparative advantage** and national and regional **specialisation**; theory demonstrates that certain geographic locations specialise in particular sectors gaining competitiveness.

❖ **Marshall**, contributed to greater firm productivity empathising the phenomenon of **agglomeration** of specialised economic activity and **Krugman's** with the **new Economic Geography**.

❖ As economies evolve, and gain in complexity there is a wide recognition of the **advantages** derived from locating firms, from similar sectors nearby including supply sources as they tend to cooperate to increase productivity.

## Origins of clusters

- ❖ Clustering has been happening **spontaneously** throughout time, however, there is not yet a common universal understanding of what a cluster is nor a common theoretical framework to explain the phenomenon.
- ❖ The diversity of academic approaches to clusters, derives in **different definitions and terms** used by academics and policy makers (association, business networks, industrial districts, milieu, etc.)<sup>\*</sup>
- ❖ For some is a question of **localisation, proximity, specialisation**, for others the result of proactive action from **public sector**.
- ❖ Nowadays, this phenomenon occurs at a **larger scale** (full global value-chain) and clusters change and transform taking a variety of forms.



## Some definitions!

*Porter (1990) stressed that “national prosperity is created, not inherited. A nation’s competitiveness depends on the capacity of its industry to innovate and upgrade. Competitive advantage is created and sustained through a highly localized process”.*

*(Competitive Advantage of Nations)*

*Porter (1998) defines clusters as “Geographic concentrations of interconnected companies, specialised suppliers, services providers, firms in related industries, training institutions and support organisations linked around a technology or end product within a local area or region”*

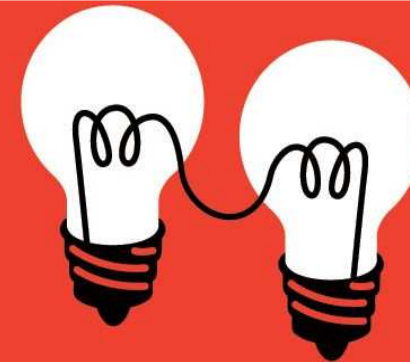
*(Clusters and the New Economics Competition”, Harvard Business Review (1998) 76(6): 77-90)*

**Industrial districts** (emphasise the spatial dimension of intense interactions among firms in particular areas (Brusco, 1982); **Systems of production** (synergies that arise from co-operation and competition (Storper, 1997); **Regional systems of innovation** (NIS, knowledge and interactions in the centre of the process and **networking** (not necessarily geographically concentrated).

*(OECD Reviews of regional Innovation: competitive Regional Clusters)*

**Clusters are Geographic agglomerations of companies, suppliers, service providers and associated institutions in a particular fields linked by externalities and complementarities of various types,**

*European Cluster Policy Group, (2010)*



## But what is a cluster?

❖ Despite of several definitions most refer to clusters as groups of firms and institutions in a

**geographically concentrated** space  
**connected** and **specialised**.

❖ The cluster concept has been addressed and used in different ways to explain **economic development processes**

❖ Clusters have gained popularity and nowadays are considered as **key drivers** for economic development, **innovation** and competitiveness.



## Innovation matters!



- ❖ Innovation does not happen in isolation! rather it is characterized not only by feed-back loops inside the organization but increasingly with actors outside of firm boundaries.
- ❖ Various types of inter-company cooperation and networks have gained increased popularity during recent years.

❖ **“open innovation”** (Chesbrough, 2003) is attributed to increased global competition, complexity of technology and faster innovation cycles.

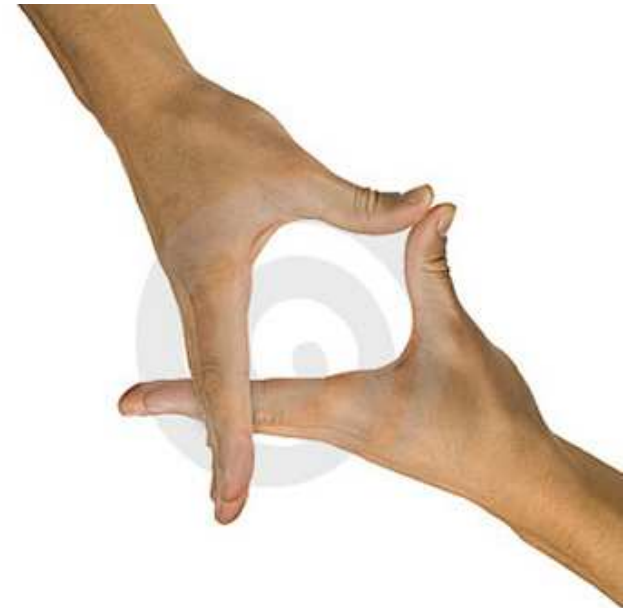
## “Think global, act local”

- ❖ **Globalisation** has stressed the importance of the **competitiveness** of the regional industrial structure as **competitive advantage** can be **localised** even if **economic activity globalise**.
- ❖ Clusters are affected by **global markets** and nature of competition. The challenge is to find strategic niches in **global value-chains** to remain competitive.
- ❖ **Dynamic clusters** are **key actors for regional policy**. Build on specialised partnerships, cooperation and knowledge flows among the different innovation system agents allow clusters to overcome barriers to innovation, leading to productivity growth and internationalisation of firms.



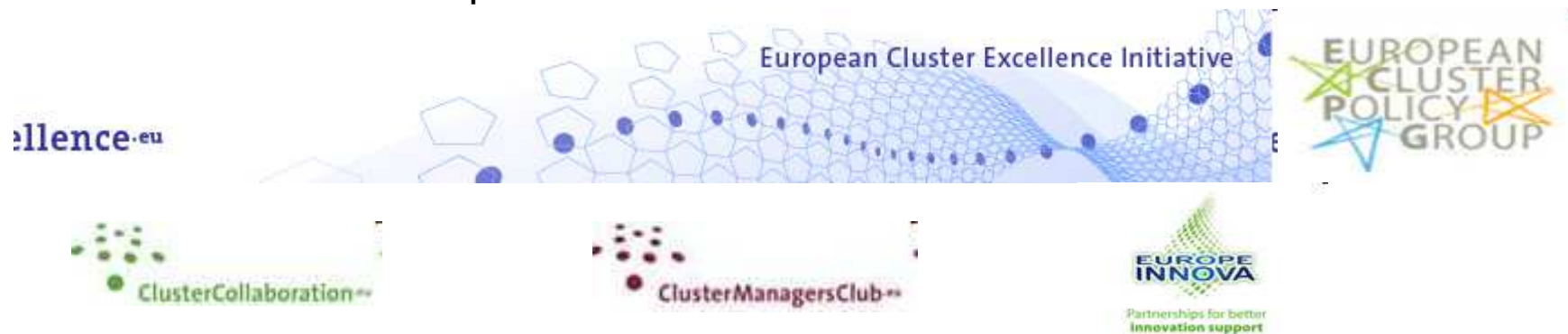
## Cluster a policy challenge!

- ❖ Clustering as a policy tool is a modern concept largely attributed to **Michael Porter** since the 1990'.
- ❖ Cluster development is a strategic channel to make regions more innovative and competitive.
- ❖ **Cluster Policies** are **needed** to fully gather the benefits of clusters in driving competitiveness, innovation and job creation in the EU. Specific actions have been taken at EU, national and regional level.
- ❖ *“Policies have been oriented to reinforce regional specialisation, supporting linked industries in a geographical location and emphasising stronger interactions among different public and private actors” (OECD, 2007).*
- ❖ This **new approach** implies that clusters need to be connected to other policy fields.



## Clusters a Policy Challenge!

- The European Commission has provided a **policy framework** for action aiming to raise the level of excellence and openness of clusters including:
  - **European Cluster Memorandum** important step towards further encouraging cluster development
  - A high-level **European Cluster Policy Group** to assist EU countries in supporting clusters
  - The **European Cluster Alliance** to promote better dialogue
  - The **European Cluster Observatory**, an information service on clusters for enterprises



## Clusters a Policy Challenge!



❖ Clusters are among the **9 strategic priorities** in the EU to support innovation (*Putting knowledge into practices: A broad-based innovation strategy (EC, 2006)*).

❖ A progressed cluster support framework was outlined in *“Towards world-class clusters in the EU: implementing the broad-based innovation strategy (2008)*

❖ The Competitiveness Council (2010) reinforces the support to clusters highlighting that efforts need to be continued to remove barriers to trans-national cluster cooperation, and to encourage the **emergence and consolidation of world-class competitive clusters across Europe**.

❖ **Europe 2020** strategy advocates for **Smart, Sustainable and Inclusive Growth**. Clusters have also role to play!

## Clusters a Policy Challenge!

- ❖ **Cluster Policies** are **still incipient** and very diverse in the EU.
- ❖ Although the **market-driven** nature of clusters, policy makers have supported them with different instruments and in different ways.
- ❖ Since end of 1990s, *increasing forward-looking public policies, business initiatives or top-class universities and research institutes have been instrumental in the emergence of **strong clusters** by acting as a catalyst and helping to unleash the economic and scientific potential of particular regions* (EC, 2008).
- ❖ European Cluster Observatory has identified:
  - 2000 regional Clusters.
  - At least 70 national cluster policies.
  - Hundreds of regional policies.
- ❖ The EU does not lack clusters, but **from world-class strong innovative clusters**.



## Practice of Cluster Policies: Basque Country regional cluster Policy

### The Basque Country region in a nutshell



Source Basque Regional Government

<b>Population:</b>	<b>2,162,900 inhabitants</b>
<b>Area:</b>	<b>7,234 km<sup>2</sup></b>
<b>Capital:</b>	<b>Vitoria-Gasteiz</b>
<b>Provinces:</b>	<b>Araba (Vitoria), Bizkaia (Bilbao) y Gipuzkoa (San Sebastian)</b>
<b>Official languages:</b>	<b>Castilian Spanish and Basque</b>
<b>GDP per capita:</b>	<b>136 (2008)</b>
<b>GDP per sectors:</b>	<b>Agriculture and Fisheries (0,6%), Construction (9,1%) Industry (24,2%), and services (66%).</b>
<b>GDP per capita:</b>	<b>136 Euros</b>
<b>Unemployment:</b>	<b>8,1%</b>
<b>R&amp;D investment (% GDP):</b>	<b>1.85%</b>
<b>University system:</b>	<b>4 Universities with 28 Faculties, 3 HEI and 11 Colleges</b>

Source Eurostat, 2010

Basque Country region is one of the most industrialised regions in Spain and **pioneer to apply Porter's methodology** to detect potential priority clusters (since early 90').

❖ Stages in the Basque Country Cluster Policy:

- First steps of the **clustering policy** (Porter study, 50 sectors selected and grouped in emerging clusters).
- Focus on industrial competitiveness: creation of **9 clusters** and definition of the Cluster Association.
- Operational: 3-year **Collaboration Agreements** (including joint (public-private) funding).
- Strategic actions: **Monitoring policy** (2000). Launch of **Cluster Observatories** (2009), to provide relevant information and interact with enterprises.
- Vision 2015: priority **Inter-cluster cooperation**



## Outputs of the Basque Country regional cluster Policy

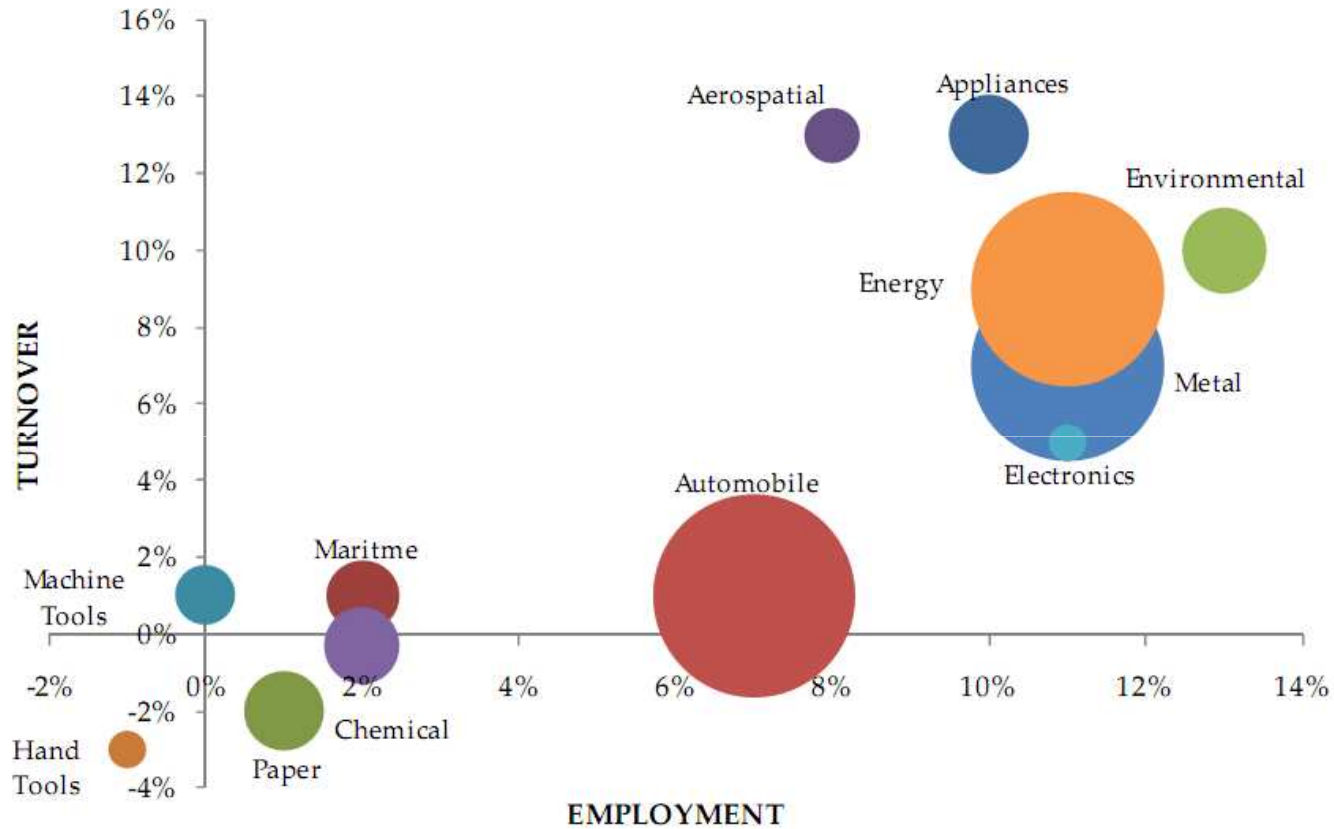
- ❖ Basque Country region is a well know case study on cluster policies
- ❖ 12 Priority Clusters\* created and supported by Basque Country Government
- ❖ 10 more pre-clusters identified (2010/11)
- ❖ The policy has permitted to better understand linkages among innovation system agents and plan specific actions; a better comprehension of the origin for competitive advantage being a useful tool to implement industrial policy.



\* Automotive-1993, Household Appliances-1992, Environmental Industries-1995, IT and Telecommunications-1994, Machine Tools-1992, Aeronautics-1997, Paper-1998, Ship Building Industry-1997, Port of Bilbao-1994, Energy-1996, Knowledge in Management-1996, Audiovisual-2004

## Outputs of the Basque Country regional cluster Policy

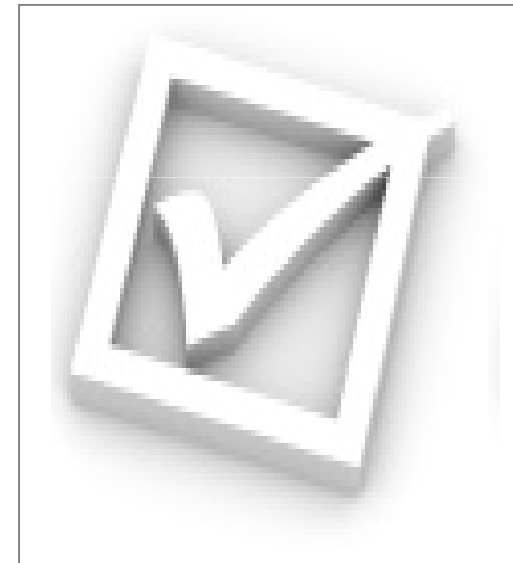
### Main industrial Basque cluster according to their size and recent trends in turnover and employment



Source: Farías *et al.* (2009), "Structural Change and Globalisation: Case Study Basque Country (Spain), Contract No. 2008.CE.16.0.AT.020 concerning the ex post evaluation of cohesion policy programmes 2000-2006 co-financed by the European Regional Development Fund (Objectives 1 and 2). WP4, European Commission, Directorate General Regional Policy, Policy Development Evaluation Unit. Based on Eurostat and the Report from Basque Parliament "Riesgos para la Economía Vasca y Estrategias de respuesta, Junio 2008)

## Role of the clusters in Basque economy:

- ❖ 1,603 firms (12.4% of Basque total manufacturing units)
- ❖ 66.7% of total Basque industrial turnover
- ❖ 50.1% of Basque total industrial employment.



## New ways of dynamizing the regional economy

Virtual centers that unify the regional actors in specific research areas



## Conclusions

- ❖ The **challenge** for policy makers is to **define** strategies and **policies** permitting to **lead innovations** into **competitive advantages** according to the location and type of economic activity in global value chains.
- ❖ **Cluster policy** needs to be **long-term planned** as benefits from clustering activities take about 5-10 years to appear.
- ❖ Efforts at regional, national and EU level should **facilitate** the establishment of closer and more **efficient linkages** between clusters as well as with leading research institutes within Europe and abroad.
- ❖ Increased global competition has raised the interest in **strong clusters** as hubs to enhance industrial innovation and growth.
- ❖ **Monitoring policies** needed to see the impact of these policies.



## Conclusions



❖ **Policies** supporting regional specialisation and clusters **can not be isolated!** Coordination and support among different policies is needed.

❖ Regions need to plan **smart policies** to reach **smart growth**. Betting on adequate specialisation and accompanying cluster policies is key for it.

❖ Innovation, **world-class clusters** and adequate positioning in global markets and global value chains are key factors for **smart growth**.

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Thank you for your attention!

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