The importance of clusters as drivers of competitiveness and regional economic development

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Department of Enterprise and Labor - Government of Catalonia

Santiago de Compostela, 15th December 2011
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Introduction: cluster, a modern term with ancient roots

Via degli orefici – goldsmiths street
Via seterie – silkmakers street
Via calzolerie – shoemakers street
Introduction: cluster, a modern term with ancient roots
Introduction: cluster, a modern term with ancient roots

Sales (2010): 5,8 Bn. €
60,000 employees
Main manufacturing plant: Agordo (Veneto, Italy)
Over 6,350 sales outlet around the world

Main house and licensed brands

Main distribution chains

Source: companies websites
930 companies
1,5 Bn € turnover
Over 12,000 employees
22% of world export
Introduction: cluster, a modern term with ancient roots
Introduction: cluster, a modern term with ancient roots

Cluster origin could be linked to many factors:

- Some local competitiveness advantage like natural resources, geographic conditions, etc.
- The development of particular skills and abilities in a territory
- The result of several spin-off processes in a sector or in correlated industry
- The evolution of a particular business into another one (often with more added value)
- A specific local demand for a product or service
- The combination of two or more of the above
Introduction: cluster, a modern term with ancient roots

Clusters are a natural phenomenon, that is nothing to do with policy...

or

..clusters are the result of a specific regional economic development policy ...

Clustering are both the result of evolutionary and constructive forces
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Cluster initiatives as a tool for regional competitiveness

Cluster ("wild cluster")

"Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions in particular fields that compete but also cooperate"

Michael E. Porter (2008)

Cluster initiative

“Cluster initiatives are organised efforts to increase the growth and competitiveness of clusters within a region, involving cluster firms, government and/or the research community”


Cluster organization / association

Cluster organizations are entities that are managing and representing a cluster initiative.

A cluster organization does not necessarily have members, but it provides services to the cluster initiative participants.

A cluster association is a not-for-profit legally formed entity gathering businesses and other stakeholders involved in cluster initiatives.
Cluster initiatives as a tool for regional competitiveness

**CLUSTER DEVELOPMENT INITIATIVES WORLDWIDE**

- Aprox. over 1,400 initiatives at world level (USAID)
- Over 1,200 cluster organization at European level (source: ECO - European cluster observatory)

**SCOPE:**
- NATIONAL
- REGIONAL
- LOCAL-CITY

**Selected regions and countries with cluster-based development initiatives**

- Emilia-Romagna
- Toscana
- Catalunya
- Euskadi
- Scotland
- Chihuahua
- Arizona
- Massachussets
- New Zealand
- Christchurch
- Sonoma
- Costa Rica
- Morocco
- Sweden
- Turkey
- Lithuania
- Barcelona
- Austria
- Jordan
- México
- Campeche
- South Africa
- Rhône-Alpes
- France
- Estonia
- Denmark
- Dominican Republic
- Slovenia
- UK
- Minas Gerais (BR)

- Pakistan
- Kazakhstan
- Poland
- Paraguay
- Rio Negro (AR)
- Russia

**ILLUSTRATIVE NOT EXHAUSTIVE**

- Morocco
- Tunisia

Source: TCI cluster initiatives database, TCI research and practice
Cluster initiatives as a tool for regional competitiveness

A closer look at European level

Some data on cluster in Europe

Over **2,000** regional clusters

**38%** of European jobs concentrated in clusters

Approximately **1,400** cluster organizations (*)

**130** funding schemes specifically dedicated to clusters in 31 countries

Sources: EC, ProinnoEurope, *The concept of clusters and cluster policies and their role for competitiveness and innovation: main statistical results and lesson learned*, 2008, (* ) European Cluster Observatory, 2011..
Cluster initiatives as a tool for regional competitiveness

Selected organization and programs promoting cluster-based initiatives in Latin America

<table>
<thead>
<tr>
<th>Country</th>
<th>Program/Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peru</td>
<td>• Peru Compite - Consejo Nacional de Competitividad</td>
</tr>
<tr>
<td></td>
<td>• CONFEPI - Confederación Nacional de Instituciones Empresariales Privadas</td>
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<tr>
<td></td>
<td>• CDI - Centro de Desarrollo Industrial</td>
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<td></td>
<td>• MINKA Peru</td>
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<tr>
<td>Uruguay</td>
<td>• DIPRODE - Dirección de Proyectos de Desarrollo</td>
</tr>
<tr>
<td></td>
<td>• PACPYMES - Programa de apoyo a la competitividad y promoción de exportaciones de la pequeña y mediana empresa</td>
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<tr>
<td>Venezuela</td>
<td>• FEDEINDUSTRIA - Confederación Venezolana de Industriales</td>
</tr>
<tr>
<td></td>
<td>• CONINDUSTRIA - Confederación de la Ciudad de Córdoba</td>
</tr>
<tr>
<td></td>
<td>• ADECU - Agencia para el Desarrollo Económico del Estado de Misiones</td>
</tr>
<tr>
<td></td>
<td>• AGEDEEL - Agencia para el Desarrollo Económico de Eldorado</td>
</tr>
<tr>
<td></td>
<td>• Gobierno Mendoza</td>
</tr>
<tr>
<td>Argentina</td>
<td>• Corporación Vitivinícola</td>
</tr>
<tr>
<td></td>
<td>• Ministerio de Producción</td>
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<tr>
<td></td>
<td>• ADEC - Agencia para el Desarrollo Económico de la Ciudad de Córdoba</td>
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<td>• AGEDEL - Agencia para el Desarrollo Económico de Eldorado</td>
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<td>• Gobierno Mendoza</td>
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<td></td>
<td>• ADEMI - Agencia para el Desarrollo Económico de Misiones</td>
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<tr>
<td></td>
<td>• Pro Río Negro Agencia de Desarrollo</td>
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<tr>
<td>Panamá</td>
<td>• Centro Nacional de Competitividad</td>
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<td>Ecuador</td>
<td>• Consejo Nacional de Competitividad</td>
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<tr>
<td></td>
<td>• Ministerio de Industrias productividad</td>
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<tr>
<td></td>
<td>• Sistema Nacional de Competitividad</td>
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<tr>
<td></td>
<td>• Ministerio de Comercio, Industria y Turismo.</td>
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<tr>
<td></td>
<td>• Comisiones Regionales de Competitividad</td>
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<tr>
<td></td>
<td>• Cámara de Comercio de Bogotá</td>
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<td></td>
<td>• Cámara de Comercio de Medellín para Antioquia</td>
</tr>
<tr>
<td>Peru</td>
<td>• MIFIC – Ministerio de Fomento, Industria y Comercio</td>
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<tr>
<td>Bolivia</td>
<td>• AOPEB - Asociación de Organizadores de Productores Ecológicos de Bolivia</td>
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<tr>
<td></td>
<td>• CEPAD - Centro para Participación y Desarrollo Humano Sostenible</td>
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<tr>
<td></td>
<td>• AIEP - Asociación de Instituciones de Promoción y Educación</td>
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<tr>
<td></td>
<td>• Consejo Departamental de Competitividad de Cochabamba</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>• MIFIC – Ministerio de Fomento, Industria y Comercio</td>
</tr>
<tr>
<td>Colombia</td>
<td>• Programa Nacional de Competitividad - Honduras Comite</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>• Ministerio de Economía, Industria y Comercio</td>
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<td></td>
<td>• CONACOM - Consejo Nacional de Competitividad de Costa Rica</td>
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<tr>
<td>Paraguay</td>
<td>• ONPEC - Paraguayan Organization for Competitiveness Strategy</td>
</tr>
<tr>
<td>Chile</td>
<td>• CORFO</td>
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<tr>
<td></td>
<td>• SERCOTEC - Servicio de Cooperación Técnica CNI –</td>
</tr>
<tr>
<td></td>
<td>• Consejo Nacional de Innovación para la Competitividad</td>
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<tr>
<td></td>
<td>• Agencias Regionales de Desarrollo Productivo</td>
</tr>
<tr>
<td>Guatamala</td>
<td>• PRONACOM - Programa Nacional de Competitividad</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>• Compañía de Fomento Industrial (PRIDCO)</td>
</tr>
</tbody>
</table>

Fuente: RedLac, 2011
Cluster initiatives as a tool for regional competitiveness
Cluster initiatives as a tool for regional competitiveness

Why clusters has become so popular among regional development practitioners?

Because they generate endogenous competitiveness advantages

- improve companies’ operational efficiency
- foster innovation and tacit knowledge diffusion
- stimulate new companies creations especially through spin-offs
- accelerate social capital formation

Because they are a reality already present on the territory

They allow economy of scales in:

- understanding competitiveness and strategy challenges at industry level
- design and implement horizontal cooperation initiatives among companies and other agents

They represent a useful tool for strategic market intelligence

They can help the definition and fine-tuning of other competitiveness horizontal policies
Cluster initiatives as a tool for regional competitiveness

How clusters are used in regional development projects?

- As unit of reference for competitiveness reinforcement projects at national, regional and local level
Cluster initiatives as a tool for regional competitiveness

How clusters are used in regional development projects?

- As unit of reference for competitiveness reinforcement projects at national, regional and local level

- Helping structuring general competitiveness building schemes in emerging countries by multilateral organization like IAB, World Bank, UNIDO, etc.
Cluster initiatives as a tool for regional competitiveness

How clusters are used in regional development projects?

- As unit of reference for competitiveness reinforcement projects at national, regional and local level

- Helping structuring general competitiveness building schemes in emerging countries by multilateral organizations such as IAB, World Bank, UNIDO, etc.

- Defining a general framework for improving business climate, transnational cooperation and SMEs competitiveness: EU cluster policy framework
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3. An example of cluster policy evolution: Catalonia

4. Conclusions: key challenges for cluster policy
Why it is necessary to innovate in cluster policy?

- Because the **way of competing and the market are continuously evolving** and they need appropriate policies

- Because **different types of competitiveness reinforcement initiatives requires different supporting policies** and actions

- Because cluster initiatives have a **very high learning by doing component**

- Because cluster are not “islands” and are influenced by what is happening in the world (*think globally, act locally*)
An example of cluster policy evolution: Catalonia

Areas of potential innovation in cluster policy

Innovating in **scooping** and shaping competitiveness reinforcement initiatives at cluster level

- *Industry center initiatives Vs. market / concept grouping*
- *Geographically concentrated Vs. territorial diffused*
- *Industry centered Vs. Cross-sectoral*

Innovating in **working** with clusters (internal organization)

Innovating in **methodology**

Innovating in cluster **management and governance**

Innovating in the way of **funding** cluster initiatives

............
An example of cluster policy evolution: Catalonia

**Why the case of Catalonia is be interesting?**

- For its long-haul: almost two decades of experience
- Because it is based on an original methodology
- Because it is a learning by doing experience
- Because it is well documented...

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<thead>
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<tbody>
<tr>
<td>I phase</td>
<td>II phase</td>
<td>III phase</td>
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</table>

**THE MICROCLUSTER APPROACH AS THE UNIT OF REFERENCE FOR COMPETITIVENESS REINFORCEMENT INITIATIVES**

**CONSOLIDATION, INTERNAL SKILL DEVELOPMENT, PROJECT DIVERSIFICATION**

**EVOLUTION OF CLUSTER CONCEPT, INSTITUTIONALIZATION, AND PROFESSIONALIZATION**
An example of cluster policy evolution: Catalonia

**KEY MILESTONES IN CATALAN CLUSTER POLICY**

1993 - 2004

**I phase**

**THE MICROCLUSTER APPROACH AS THE UNIT OF REFERENCE FOR COMPETITIVENESS REINFORCEMENT INITIATIVES**

**Innovating in cluster conception and use**
An example of cluster policy evolution: Catalonia

**KEY MILESTONES IN CATALAN CLUSTER POLICY**

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</table>

**THE MICROCLUSTER APPROACH AS THE UNIT OF REFERENCE FOR COMPETITIVENESS REINFORCEMENT INITIATIVES**

- Creation of an internal cluster unit to retain talent and knowledge
- Develop cluster-specific instruments to facilitate strategic change
- Design of different cluster reinforcement initiatives to work with different groups of companies (clusters or similar)

**CONSOLIDATION, INTERNAL SKILL DEVELOPMENT, PROJECT DIVERSIFICATION**

Innovating in internal organization and cluster initiatives design
## An example of cluster policy evolution: Catalonia

<table>
<thead>
<tr>
<th>Type of project</th>
<th>Example</th>
<th>Scope</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local cluster competitiveness reinforcement initiatives</strong></td>
<td>Sanitary taps Baix Llobregat Cork industry in Costa Brava</td>
<td>One or more counties</td>
<td>Cluster competitiveness reinforcement by promoting strategic change and horizontal cooperation initiatives</td>
</tr>
<tr>
<td><strong>Strategy-focused clusters</strong></td>
<td>Transformation of textile industry: branding and retail Growing strategies in food industry</td>
<td>Variable</td>
<td>Identify emerging winning strategies inside a cluster or sector and prepare a “taylor-made” and innovative support scheme</td>
</tr>
<tr>
<td>Incipient and emerging clusters ..</td>
<td>Optics and photonics Photovoltaic</td>
<td>Variable</td>
<td>Identify potential and incipient clusters and fostering their development</td>
</tr>
<tr>
<td><strong>Local competitiveness reinforcement</strong></td>
<td>Ripolles county development plan Osona innovation plan</td>
<td>City or county</td>
<td>Screening of main economic activities and existing clusters to define cluster-based initiatives</td>
</tr>
<tr>
<td><strong>Other competitiveness reinforcement initiatives</strong></td>
<td>Well-being Kid-related products</td>
<td>Variable</td>
<td>Competitiveness reinforcement initiative of a group of companies group by alternative criteria (ex. market, concept, etc.)</td>
</tr>
</tbody>
</table>

Source: OPI, 2009
An example of cluster policy evolution: Catalonia

**Selected competitiveness reinforcement initiatives at cluster and sectoral level (2005 – 2011)**

- **Cluster competitive reinforcement initiatives**
- **Strategy centered reinforcement projects**
- **Emerging Clusters**
- **Local Development and Innovation Plans**
- **Other projects**

- Cork Industry in Costa Brava
- Wine and cava Manresa Innovation plan
- Knitwear in Anoia
- Textile in Bages
- Household Furniture in la Garriga
- Fireplaces in Centelles
- Households and Dies
- Motorcycles
- Medical devices
- Graphic Arts in Barcelonès
- Taps and valves Baix Llobregat
- Optics and Photonics
- Fashion Industry
- Lightning industry
- Gourmet Food
- Food Service
- Maritime industry
- Technical Fabrics
- Renewable energies: photovoltaics and wind power
- Children-related products
- Well-being
- Beauty and cosmetics
- Sports Equipments
An example of cluster policy evolution: Catalonia

**KEY MILESTONES IN CATALAN CLUSTER POLICY**

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**THE MICROCLUSTER APPROACH AS THE UNIT OF REFERENCE FOR COMPETITIVENESS REINFORCEMENT INITIATIVES**

**CONSOLIDATION, INTERNAL SKILL DEVELOPMENT, PROJECT DIVERSIFICATION**

**EVOLUTION OF CLUSTER CONCEPT, INSTITUTIONALIZATION AND PROFESIONALIZATION**

Innovating in cluster scooping, funding and governance
The case of Catalonia

From traditional statistically-defined cluster initiatives to strategy-centered ones

Food-sector clusters

Meat processing
Wine and cava
Olive oil
... Farm machinery
Fishing

HORECA
Big Distr. Chains
New Channels
Trad. retail
Retail specialist

Leading Brands
Gourmet
Functional food
Retail Brand
Organic food
Food service
Distributio n service

+ Brand
- Brand
An example of cluster policy evolution: Catalonia

**Kids related activities value chain in Catalonia**

**INDUSTRY – OWN PRODUCT COMPANIES**

- **FOOD**
  (food, children specific products-breakfast, snack..- confectionery, sweets...)

- **HYGIENE, COSMETICS, HEALTH**
  (Cologne, soap, nappies, creams, medicines...)

- **FASHION AND ACCESSORIES**
  (Clother, shoes, accessories for children...)

- **HABITAT**
  (decor, children’s furniture, home textile...)

- **CHILDCARE ITEMS**
  (prams, child car seats...)

- **LEISURE AND ENTRETEINMENT**
  (toys, audiovisual products, books...)

- **SCHOOL EQUIPMENT**
  (stationery, textbooks...)

**DISTRIBUTION**

- **IMAGE OWNERS-LICENSES**
- **LICENSES STAKEHOLDERS**

**MARKET**

- **SALES BIG DISTRIBUTION CHANNEL**
  - Pharmacy
  - Independent Retailers

**CHILD**

- **Retailers**
  - Child specialist

**PARENTS**

- **Independent Retailers**
  - Child specialist

**SCHOOLS**

- **School Distribution**

**MASS MEDIA**

- **ORGANISED EDUCATION SERVICES**
- **ORGANISED LEISURE SERVICES**

**OTHERS**

- **aprox. 300 companies**
  - over 3 bn € aggregated total sales

Generalitat de Catalunya
Departament d'Empresa i Ocupació

www.tci-network.org

TCI Network
An example of cluster policy evolution: Catalonia

**Kid's cluster initiatives implementation**

- **Mapping and analysis**
  - 2009
- **Workgrups and meeting**
- **Creation of core grup of leading companies**

**Financial model**

**Contribution from the Catalan Government**

<table>
<thead>
<tr>
<th></th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural costs</td>
<td>75,000</td>
<td>50,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Co-financing of collaborative projects. Max amount. At 50%</td>
<td>75,000</td>
<td>50,000</td>
<td>25,000</td>
</tr>
<tr>
<td>Total</td>
<td>150,000</td>
<td>100,000</td>
<td>50,000</td>
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**Institutionalization of the cluster**

- Hiring of cluster manager
  - July 2010
- First anniversary
  - July 2011
  - Over 45 members
An example of cluster policy evolution: Catalonia

Main features of “new generation” cluster initiatives:

- Bigger market dimension
- Cluster initiatives defined by strategy rather than by industry/technology
- “Cross-industry” focus
- Transnational dimension
- Private leadership in the medium-long term
- Professionalized management
- Decreasing co-funding
- Flexible concept of cluster seen mainly as a tool for designing and implementing competitiveness reinforcement initiatives
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Conclusions: key challenges for the future of cluster policy

Clusters’ main challenges are linked to a series of paradoxes and trade-offs:

- Show concrete results working mainly in building intangible assets (tacit knowledge, strategic change, etc.)
- Guarantee proper professional governance for a spontaneous phenomenon
- Assure long term sustainability without creating structural rigidity
- Provide visibility for a low profile policy intervention
- Keep focus on local competitive advantages with global market operations
- Assure cross-sectoral scope maintaining market coherence
- Create social capital and specialized institutions
Conclusions: key challenges for cluster policy

“Catalonia: a cluster ecosystem”

- Regional government promoting cluster-based initiatives since 1993
- Aprox. 30 cluster development initiatives with over 1,000 companies actively participating in projects
- Leading boutique consultancy firm specialized in cluster development projects
- Leadership and participation in main European projects and networks on cluster policy
- Other local administrations and agents promoting Cluster initiatives
- Home of TCI Network: a leading professional network of cluster practitioners with members in over 100 countries
- Leading business school with specific executive programs on cluster policy and management
Conclusions: key challenges for cluster policy

“It is not the ingredients, but the recipe..”
(AnneLee Saxenian, 1994)

Clusters could be the ideal environment where to design and test recipes for regional economic development

A cluster is a tool for better understanding a business and to design and implement competitiveness reinforcement policies
Thanks for your attention!
For more information:

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apezzi@tci-network.org

www.tci-network.org