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# Discussing the Concepts of Cluster and Industrial District

Javi Ortega-Colomer[*], Francesc Xavier Molina-Morales[**]

[*]PhD Candidate - INGENIO (CSIC-UPV), Universidad Politécnica de Valencia, Camino de Vera s/n, 46022 Valencia, España

fraorco@ingenio.upv.es

[**]Professor - Department of Business Administration and Marketing (Universitat Jaume I - Castellón - Spain)

molina@emp.uji.es

ABSTRACT

Various *neologisms* have been invented by regional scientists (mainly economists and geographers) in order to explain the set of actors that interact in a specific location and the dynamics that enhance regional innovative performance. The primary aim of this paper is to discuss the different origins and subsequent evolution of two of these terms: *industrial district* and *cluster*. The industrial district concept has not been widely recognized as an operational concept and has been applied in only a few countries such as Italy and Spain. Since the 1990s, it has been progressively substituted by the apparently fresher and clearer idea of cluster. We know that competition in *the concepts market* is based on diverse and sometimes unfair and confusing rules. Some authors characterize cluster as ambiguous and vague, while others see this nebulous quality as *adding value*, fostering theoretical debate across different disciplines. Since the *logic* of both concepts is far from clear, an analysis of the underlying *rhetoric* is helpful. We analyse one of the European Commission's (EC) policy documents, in which there are inconsistencies that do not impede the formulation of normative statements.

*Keywords: industrial districts, clusters.*

## 1. Introduction and Objectives

Despite the ongoing globalization process, the regional dimension is attracting a lot of interest in terms of the shifts in science, technology and society. For instance, it is well-known that in many countries there has been a process of decentralization of the power authorities (UK, Germany, Austria and Spain are examples). At the same time, regional analysts have been investigating why industries agglomerate and specialize in specific locations, and how firms can profit from this activity –so called, external economies. In fact, regional development can be analysed by identifying the economic, social and institutional dynamics involved, and by redefining the changing role played by different actors and by taking 'the region as a scale of economic organization and political intervention' (MacKinnon et al. 2002, p.293).

Economists and geographers working in these areas have proposed a set of *neologisms* 'to capture and represent the spatial form and nature of local business concentrations' (Martin & Sunley 2003, p.8). *Industrial districts, new industrial spaces, territorial production complexes, neo- Marshallian nodes, regional innovation milieux, network regions,* and *learning regions* are some of the terms that have been suggested (Scott 1988; Amin & Thrift 1992; Harrison 1992; Harrison et al. 1996; Scott 1998; Markusen 1996; Asheim 2000; also cited in Martin & Sunley 2003). The most popular of these concepts (for very diverse reasons) are industrial district (Becattini 1990) and cluster (Porter 1990), notions that we focus on in this paper.

We should first confirm the extensive use and popularity of these concepts, and particularly the *Porterian* cluster, among academics, policy makers, institutions and practitioners. The *success* of these concepts has resulted in some rather confusing and sometimes chaotic usages, which, at the same time, justify our examination of their conceptual development.

Since 1990, the concepts of industrial district and cluster have been used to refer to the same phenomenon in many regional research writings (Lazzeretti and Markusen point to some examples). In our view, the indiscriminate use of concepts in scientific writing is often due to the preferences of the journal editors. Markusen (1999, p.869) described this as terms that 'lack substantive clarity' or as 'fuzzy concepts'. Also, the fact that

these terms arose out of the interaction among different domains, i.e. the research community and policy-makers, led Professor Reijo Miettinen to refer to them as 'transdiscursive terms' (Miettinen 2002, p.133) while others refer to them simply as 'fashion labels' (Martin & Sunley 2003, p.23) because of their temporal nature. However, many authors have made efforts to differentiate these concepts and have warned about the consequences of the confusion or lack of clarity in their use (Markusen 1999; Lastres & Cassiolato 2005; Lazzeretti 2006). Others have strived for a deconstruction of the cluster concept (Martin & Sunley 2003), concluding that in transcending their epistemological boundaries the regional scientist can provoke a misuse of the original concept and ignore the contributions of colleagues.

Our first reaction is that the *logic* of these concepts (industrial district and cluster) is far from clear and an analysis of their underlying *rhetoric* is required. To this end, we analyse an EC policy document *The Concept of Cluster and Cluster Policies and their Role for Competitiveness and Innovation: Main statistical results and lessons learned* (European Commission 2008). Although there are some inconsistencies in this document, surprisingly they do not impede the formulation of normative statements. For instance, clusters are argued to act as vehicles *to foster prosperity* at the European level in terms of *more employment* and *higher wages*. We perform a critical analysis of this and similar statements.

The paper is structured as follows. Section 2 discusses the origins and definitions of the concepts. Section 3 compares rationales, methodologies and rhetoric. Section 4 discusses the pitfalls in use of the cluster concept for policy making.

## 2. Origins and Definitions of the Concepts of Industrial District and Cluster

*2.1. Industrial District*

First, the intellectual detonator for the emergence and development of the industrial district concept was an in-depth reflection about the modes of organizing the production process in the early stages of capitalism (Marshall 1890; Marshall 1919). At that time (the end of the 19th century) the hegemonic mode of production was the so-called

*factory system*, where all productive operations were concentrated in the same location (Becattini 2002). Marshall's writings were the source of inspiration for several authors (Brusco 1990; Pyke et al. 1992; Porter 1998; Becattini 2002) who attempted to explain external economies[1] from an operational point of view. According to Krugman (1991), Marshall argues that the agglomeration of firms provides a troika of external economies to the firms located in the same area: *economies of specialization, economies of labour pooling and economies of knowledge spillovers*. In addition the Marshallian notion of 'industrial atmosphere' captures the flows of intangible resources and knowledge circulating within a district.

This approach re-emerged in the 1970s when some researchers argued that the innovative capacity of some small and medium enterprises in Italy could overcome the decline of the Fordist production model (Becattini 2002). A vast number of in-depth case studies on Italy became the starting point for a new paradigm. The argument is that while large enterprise suffered from the consequences of both rapid changes in the demand for products and services, and the rise in oil prices, some small enterprises collaborated in order to adapt to this new reality. These firms exchanged knowledge and expertise with other firms in the same sector and firms in their immediate surroundings, thereby enabling several complementarities. The firms involved were mainly engaged in fashion, e.g. shoes and textiles. Becattini (1990, p.38) defines an industrial district as: 'A socio-territorial entity which is characterized by the active presence of both a community of people and a population of firms in one naturally and historically bounded area. In the district, unlike in other environments, such as manufacturing towns, community and firms tend to merge'.

This definition reflects Becattini's attempt to find a unit of analysis beyond the product or technology criteria; such as the Standard Industrial Classification (SIC) codes. Becattini proposed *sense of belonging* as a sociological criterion to classify firms belonging to a district (Becattini 1990). However, he needed to find a geographically and cognitively delimited unit of analysis which meant including an entity that was alive and thus shifting continuously. In order to analyse this reality and open debate

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[1] The term *external economies* was coined by Marshall in a study of the *assumed* advantages of the factory system as hegemonic model of production: he proposed an alternative model based on a network of small cooperating firms.

among different perspectives such as History, Sociology, Economics (among others) it was important to integrate the community of people, population of firms (final product industries plus related and auxiliary industries plus machinery and tools firms) and the institutions or supporting organizations (academic, social institutions or trade associations and others) within the same analytical framework. Becattini was aware of his limitations: he could focus only on a specific natural environment and a specific *history of a location* where a particular case of possible and likely social evolutions took place simultaneously. He believed that his proposal should include more analytical elements both exogenous (e.g. the evolution of a technological sector) and also the evolution of the set of actors evolved that took account of the stages of birth, growth and decline. He included the *sense of belonging* to a specific location, territory, culture, tradition and history in the analysis to delimit the industrial district as a stable variable. This enables a better understanding of how some locations have created well known *brand images* and why the lines between low-, medium- and high-tech are sometimes blurred.

## 2.2. The Cluster Concept

The cluster approach traces its roots in a series of case studies in several industrialized countries (Porter 1990). This seminal work provided the basic conceptual framework of clusters and the legitimization for using it in the policy arena, mainly in strictly economic issues. Although the concept of cluster was primarily posed in Porter (1990), it was later defined by him as 'a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The geographic scope of a cluster can be a single city or state or a country or even a network of neighbouring countries' (Porter 1998, p.199).

Porter (1998) extended his original analysis to account for the firm's local environment, including the geographical dimension, to identify, define and scope clusters. His and his group of researchers' main objective was to identify the nature of firm competitiveness which resulted in development of the cluster framework. Porter (1980) proposed the industry attractiveness framework comprised of five competitive forces (threat of substitute products, threat of entry of new competitors, intensity of competition/rivalry, bargaining power of customers, and bargaining power of suppliers). He developed the value chain model to identify sources of competitive advantage at firm-level (Porter

1980) and then proposed the well-known *diamond model* (Porter 1990) which was followed in Porter (1998) by the cluster framework.

The cluster concept was designed to respond to questions such as *why are certain companies located in certain countries able to achieve sustainable competitive advantage?* The cluster concept attempts a global or universal development and applicability, and focuses on searching sources of competitive advantage especially 'knowledge, relationships and motivation' (Porter 1998, p.78). These advantages are difficult for distantly located competitors to integrate in their processes because of the nature of the business environment. Only co-located firms are able to benefit and their close location is an entry barrier to 'outsiders'. The cluster concept emerged and has been developed in an era of globalization and is more recent than the concept of industrial district (Lazzeretti 2006). Its widespread use has been encouraged by the marketing efforts of the consultancy firm, Monitor[2], which has links to the Institute for Strategy and Competitiveness which is led by Porter. In spite of its increasing popularity in academia and politics (Ketels 2003), the cluster concept has encountered serious criticism that is chaotic, vague and problematic[3] (Gordon & McCann 2000; Martin & Sunley 2003). The literature review reveals that in trying to differentiate among clusters, more variables were included in the analysis which has resulted in the cluster concept being adapted to enable application to any kind of sector and region.

## 3. A Concise Comparison of the Concepts of Industrial District and Cluster

In this section, we briefly compare the concepts from a critical perspective.

### 3.1. Their Emergence

From a dynamic perspective, these concepts are continuously evolving. Although Porter & Ketels (2009) defend their *common roots*, we would argue that their starting points differ. While it is the community of people that matters for Becattini, Porter's point of

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[2] http://www.monitorgroup.com.cn/en/idea/leaders/leaders10.asp [accessed January 2009].

[3] Some authors responded to Martin & Sunley's (Benneworth & Henry, 2004).

departure is analysis of the firm's value chain. After that, they converge in giving *territory* a prominent role.

As already noted, Becattini's original proposal was designed to overcome the limitations of the conventional classifications of firms (e.g. SIC). *Sense of belonging* was used instead of product or technology similarities as a criterion to group firms. Thus, industrial district is a *method* of analysis of the economic reality. The district is the unit of analysis, whose frontiers are the most relevant relationships explaining local development. Porter was searching for key issues in the competitive advantage of individual firms. If a firm's activities can be viewed as a number of value chain activities, then its main strategic decisions consist of placing each activity within the most adequate local environment. Thus, the cluster framework is more a *theory of the firm*, to explain why firm performance varies, that is, why some firms are more successful than others. So, although both concepts use territory or place as the centre of the analysis, the aims, development and final proposals are significantly different.

*3.2. Their Rationale*

If we compare analytical proposals, district and cluster show similarities in terms of justifying the advantages for firm collaboration. First, district externalities can be translated to related and auxiliary activities and factor conditions in the Porterian diamond. Competitive and cooperative duality of district internal relationships is mirrored in part by the local rivalry factor in the Porterian diamond. However, the roles of the institutional settings of district and cluster differ. The institutional setting of an industrial district is described as active in supporting the whole system and offering *real services*; in the cluster, institutions and government act indirectly or as subsidiary improvements on the diamond. Moreover differences emerge when we consider social aspects. Industrial district refers explicitly to the community of people and the context in which knowledge flows and numerous diverse categories of relationships occur. Porter barely refers to the social aspects of clustering since it is the individual firm that is the focus of the analysis. Social issues are seen to be the result of the economic success of private firms, while the success of economic issues for Becattini is the result of the social cohesion within a community of people.

*3.3. Their Methodology*

Different methodologies are associated with these concepts, mainly based on case studies. For industrial districts, case studies are used to describe both success stories and cases showing decline. They allow specific and idiosyncratic details to be captured that cannot be observed using other methodological approaches. However, case bias prevents generalization of conclusions. Other strands of research, i.e. the so-called *district effect* and studies focusing on identifying or mapping districts, attempt to demonstrate district advantages and superiority using comparison analysis. Firms belonging and outside districts are compared in terms of financial performance, innovation capacity, efficiency and other outcomes. These firms are usually in the same industry and the same country. However, the existence of a district effect has been questioned for several reasons, and often as a consequence of the globalization process which is challenging the rather static advantages of district formation.

Research on district identification is related to identifying whether or not a particular area/group can be considered to be an industrial district, i.e. whether the firms in an area are an agglomeration or a conventional district. This analysis uses mainly quantitative methods. It is assumed that not all agglomerations of firms can be identified as industrial districts which require a number of conditions to be fulfilled. These relate in particular to the industrial specialization of the local labour systems. In Porter's works, a cluster effect or cluster identification rarely is applied probably because of an implicit assumption that any groups can be considered clusters and that they vary only on the strength of their conditions. The diamond model acts as a reference for comparison with real cases. The most common type of case study consists of evaluating particular areas at local, regional and/or country level using the diamond as the benchmark.

*3.4. Their Rhetoric*

The rhetoric accompanying the concepts of district and cluster, differ according to the potential *audience* and actual aims. Becattini uses a rich vocabulary and quite dense texts that are full of metaphors. Aesthetics and the beauty of the writing are important to communicate ideas. Metaphors and other literary devices include the *Virtuous circle* to refer to the effect of the competition and cooperation in districts, or the *caterpillar and the butterfly* to explain the process of transformation in the Prato district. Becattini

theorizes about familiar realities: Prato is used as an example in much of Becattini's work. It is close to where Becattini lives and works. He can be described as having high levels of very specific knowledge about the reality he studies. Rather than seeing this closeness as a limitation, Becattini considers it as necessary to understand global issues from a local viewpoint.

Porter is much more pragmatic view. His language is aligned to private business consultancy and literary rhetoric is out of place. He discusses what he sees as important (apparent) direct and clear solutions, at expense of loss of some rigour. He uses such terms as competitive, profits and superior, and ranking, optimizing, efficient, economic-based prosperity, etc.

*3.5. Their Sources of Complaints*

Another kind of fuzziness has been identified by different audiences. The 'industrial district' concept has been criticized by policy-makers because of its fuzziness in terms of its use of metaphors. A nice example is the notion of *sense of belonging*. Becattini proposed it as a criterion to identify members of a district. The author recognizes the difficulties involved in identifying and using this sociological element. Policy-makers require clear delimitation with regard to the different ambits of the actions of administrative and politically recognized frontiers.

Porter's approach is perhaps clearer, although it has been criticized by regional analysts, mainly geographers, whose work is overlooked in the hypothetical contributions of Porter.

The cluster approach does not define the geographical scale with clarity. Also Porter seems opposed to such precision: 'the geographic scope of a cluster can be a single city or state or a country or even a network of neighbouring countries' (Porter 1998, p.199).

The pragmatic and flexible use of these notions has generated confusion among authors trying to build theory and understand how *proximity* generates advantages for firms. According to (Boschma 2005, p.71), proximity implies not only a *geographical* distance measured, for instance, in kilometres, but also includes 'cognitive, organizational, social, and institutional' dimensions.

*3.6. Their Ultimate Goal*

Ultimately, both approaches are aimed at different goals. Becattini tries to understand how some Italian areas have reached high levels of developments since the 1970s, elaborating a model to explain how a community of people can be integrated through a population of firms. People are at the centre of the analysis, and economic activities are the mean. Becattini tries to generalize his conclusions to other countries. Porter on the other hand is more interested in the corporate side. He considers that countries will enjoy higher levels of welfare if its firms are more competitive, achievable through optimal localization in the value chain. Becattini is a renowned academic, while Porter is heavily involved in his consultancy enterprise and the production of strategies for firms.

## 4. Use of the Cluster Concept for Policy Making. An example from the EC

We analyse an EC document. For several decades, economists and geographers have strived to integrate into their studies the context and the localization of firms in order to explain differences in performance at different levels (firm, sector, regional, national). In 2008 an EC document (European Commission 2008)[4] explicitly addressed the role of clusters in the modern economy. This report *apparently* answers some of the concerns in the literature about definitions, initiatives and policies. It provides some statistical results and lessons within the cluster framework, to develop this tool to increase prosperity.

This document provides some answers to the questions posed above, although from a slightly different perspective. In our opinion, these answers are problematic because they do not take any other approaches (and consequently other dimensions such as the social) into consideration (e.g. industrial district). Our analysis of this report gives support to some previous conceptual revisions. The fact that this policy document deals only with clusters is an indication that the concept of industrial district is considered

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[4] *'The Concept of Clusters and Cluster Policies and their Role for Competitiveness and Innovation. Main Statistical Results and Lessons Learned'*.

out-of-date and old-fashioned. For example, the report dedicates only one paragraph to Becattini. This conceptual *outshine* is part of a broad strategy. This would suggest that the report is *economic and narrow in scope.*

The aim of the report was 'to present and further analyse the concept of clusters and to inform about main policy approaches in support of clusters' (European Commission 2008, p.7) and complement the broader EU innovation strategy related to the creation of *world-class* clusters able to compete with clusters in leading countries such as the USA and Japan. Note that the report attempts to provide 'evidence' (European Commission 2008, p.7) of a phenomenon that is widely discussed in academic circles and is treated in a vast literature on cluster typologies and concepts and their use and application in different contexts and for different purposes. We would contest such a narrow view which sees clusters only as an *economic* phenomenon whose analysis can be understood, measured and analysed only from an *economic* dimension. Such a view underestimates the very useful contributions of geographers, sociologists and also economists. Some criticisms (e.g. (Gordon & McCann 2000; Martin & Sunley 2003; Cooke 2006), among others) are not reflected in the literature review. Moreover, other significant contributions are referred to as success stories. However there is little focus on the benefits that such a heuristic tool provides for understanding the economic success in the *Third Italy*. Specific and tailored actions to promote and support clusters are required: indiscriminate growth in an area can be problematic as illustrated by some Spanish examples.[5] If we assume higher economic activity in clusters, we need to differentiate among types of economic activity and clusters that should be supported by policy.

One of the goals of the present paper is to describe why the approach taken in the EC document being discussed cannot be considered to be an 'evidence-based approach' that is directly related to 'prosperity' (European Commission 2008, p.29). Our criticism is based on the fact that the document states that data *provide clear evidence.* However, in our opinion, the data are far from being clear, well defined, reliable and unlimited (see (European Commission 2008, pp.17-18, 24): 'While many factors other than clustering

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[5] It is well-known that the building cluster in Spain augmented economic activity for several decades. However, the consequences of its indiscriminate growth have become counterproductive in education, employment and other social terms.

can have an impact on prosperity, the data provides clear evidence that clusters are significantly related to prosperity (European Commission 2008, pp.28-29).

Due to data limitations a relationship between clusters and prosperity is difficult to prove. The regional agglomeration effects cited are based on employment data only and such data need to be complemented by other indicators e.g. value-added, for them to be meaningful. In addition, the approach adopted is 'deliberately based on the measurement of the revealed effects of clusters' (European Commission 2008, p.18) and assumes that 'the interactions (in and between clusters) are meaningful' (European Commission 2008, p.18) despite differences in type and intensity. Although some of these limitations are acknowledged in the report, they make the promised *evidence-based approach* impossible. Perhaps the approach should have been described as *tentative* or *exploratory*.

The cluster concept in the EC report is linked directly to modern and popular concepts such as open innovation and the triple helix, which, according to the report, are 'nowadays broadly accepted' (European Commission 2008, p.21). However, these concepts have been criticized due to their use 'as vehicles to conceptually understand developments that have taken place in particular countries or fields of research' (Tuunainen 2004; Vega-Jurado et al. 2007).

Likewise, it is stated (and assumed) that 'cluster firms interact more frequently with research institutions which are located in proximity than other firms and have an easier access to international networks and capital' (European Commission 2008, p.22). This is refuted in several surveys conducted in peripheral and low absorptive capacity regions, such as Valencia (Gutiérrez-Gracia et al. 2008), especially for the science-based industries. The role played by local institutions, including research institutions, has been questioned. The effects of local institutions and public bodies are controversial and have been criticized as being irrelevant and even disruptive to cluster development (see *Entrepreneurship and Regional Development*, 2006, Special Issue on industrial districts). Finally, in our view this paper conceives that these terms have been taken for granted not based on tested hypotheses or subject to in depth examination. In other words, it is incautious and simplistic to adopt such an approach to the effect of clustering on regions.

The EC report states the intention to build 'world class clusters' in Europe. Currently only '38% of all European employees work in enterprises that are part of a cluster' (European Commission 2008, p.25). The method used is (almost) the same than the Porterian one. Although it might allow comparing the two continents, the results have to be taken carefully. For instance, the report states that 'Europe lags on average behind the United States in terms of cluster strength' (European Commission 2008, p.26). However, differences in labour markets and regulatory frameworks, that is, in national and federal laws, could explain these differences between the US and Europe, rather than concentration of employment in clusters. There is also a volume of case study evidence on clusters, although few of these refer to the whole population of Europe (Rodríguez-Pose & Comptour 2010). It is assumed that 'the more specialised a region is the greater the potential for higher wages', but what kind of specialisation offers this result? Would it be better to use *relative income available* as a complementary indicator?

The question of how the cluster concept is used in the practice of policy making has been mostly overlooked. Some studies have been done on Spain (Trullén 2009). The present paper tries to separate the different meanings assigned to two regional concepts. (Trullén 2009) argues that the EC for the first time is using a different unit of analysis than *sector* and *administrative unit*. According to Trullén, the unit of analysis could guide current economic organization and political intervention aside from the conceptual differences between district and cluster. Trullén sees cluster as a fairly good choice, on the basis that the ambiguity of the concept of cluster has some *benefit* because it embraces different interpretations, given the diversity of the European countries. Thus, if the EC is proposing that the EU uses *cluster* to men a heterogeneous set of concepts (learning region, sector innovator, industrial district, etc.) these concepts could be again put into practice through the cluster lenses, for instance, at lower levels of political action.

The EC 2008 report may help the reader to understand EC thinking about convergence towards a hegemonic way of understanding economic development *offset* by the inclusion of different ways to understand that economic development, e.g. as *socio-*

*economic* development. We would highlight *social* as an under-represented dimension in the cluster model, in Porter's seminal work, and in the EC document.

It is important to note that industrial district and cluster policies are independent. While industrial district policies were initially implemented in Italy in the 1980s, cluster policies have been used worldwide since the 1990s and have been taking over the idea of industrial district. The EC report is illustrative of this in adopting a single approach (based on the cluster perspective) in its aim to promote innovation. This is perhaps why the Commission Staff Working Document SEC (2008) 2637 (European Commission 2008) was delivered as a part of the activities developed by *Europe Innova* and *PRO INNO Europe*. Therefore, cluster can be seen as an *umbrella concept* which has absorbed other approaches.

In Spain, we find both types of policies (industrial districts and clusters) in various regional programmes. While cluster policies have been implemented in the Basque Country and Catalonia, the Valencia region is using the industrial district model. Central government sees the current approach as industrial district-based and Marshall-inspired. Programmes are mainly addressed to 'innovative business groupings' (IBGs) which cooperate on technological development projects.

Before 2004, the industrial district model was not officially recognized beyond the academic level. It can be seen as a bottom-up initiative based mainly on informal connections among the different stakeholders. Since the level of analysis in both approaches tends to be local or regional, rather than national, there might be a conflict of competences and ideologies due to the fact that different political parties govern in different Spanish regions.

According to (Trullén 2009, p.731) the district-based policy in Spain represents one of four possible paths:

> *- Support to large-scale 'industrial research' within large companies (à la Schumpeter), with an ambitious programme financing strategic national consortia for technological research (Consorcios Estratégicos Nacionales de Investigación Tecnológica, CENIT).*
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> *- Support to 'technological development' based on 'propulsive companies' (à la Perroux), the idea being to finance industrial development projects driven by large companies, which however had the specific capacity to trigger knock-on effects towards SMEs (the PROFIT programme);*

*- Support to 'permanent innovation'; this refers to the innovation machine put forward by Baumol (2002), aimed at improving the propensity to innovate of companies more generally regardless of their sector or size, through initiatives that impact on firms' investment decisions on R&D (for example tax breaks);*

*- and, last but not least, a support to the innovation capacity of IDs, in particular those of the MID-type according to a Becattinian approach, based on the setting up of innovative business groups and the drafting of strategic plans (the General Office of Small and Medium-sized Companies' IBG Programme), and the financing of technological development projects (the CITD[6] agency's financial support programme for IBG[7]s).*

In terms of policy, measurement and evaluation tools we need to highlight that 'A full assessment of their (clusters) impact is not possible at this stage, taking into account the lack of comparable data and the methodological difficulties to measure multiple and long-term effects of horizontal policies' (European Commission 2008, p.8). However, the EC report claims that there is correlation between clusters and prosperity: 'While many factors other than clustering can have an impact on prosperity, the data provides clear evidence that clusters are significantly related to prosperity' (European Commission 2008, p.29), though this has yet to be investigated.


## 5. Conclusions

This paper has provided a review, critique (Section 2) and comparison (Section 3) of the way in which two regional concepts (industrial district and cluster) are understood in the literature. It reflects (section 4) on how the successful spread of cluster ideas has crowded out the concept of industrial district in a policy document (European Commission 2008).

We can draw some conclusions. First, throughout the paper the extensive use and popularity of territorial concepts was confirmed, particularly the use of those we have focused on. They are popular in all fields, such as academia, and for policy makers, among institutions or even among practitioners. Their use is inconsistent and inaccurate. Their conceptual relevancy and inaccurate application justify a critical examination.

Second, in relation to the unit of analysis, the Porterian cluster became the basis of the *Theory of the Firm*, which explains firm boundaries, heterogeneity and performance

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[6] Centre for the Development of Industrial Technology

[7] Innovative Business Groups, IBGs.

variation. The industrial district concept was an attempt to provide an alternative way to analyse industries. The variable *territory* is the criterion used to define the unit of analysis. However, later applications of the concepts in policy, as shown in the EC example, there is a great ambiguity about sites and objects of interventions. Regions or countries arise as administrative ambits toward policy addresses actions.

Third there is *debate* about the benefits of defining territorial concepts exhaustively or vaguely to enable wider applicability. Our findings show that one of the reasons why cluster is more popular than industrial district is probably because it is more vague and ambiguous. Policy makers and practitioners prefer simple concepts that capture basic ideas that allow generic and non-restrictive application. For instance, while the term *cluster* tends to homogenize how regions are addressing economic development, the *industrial district* approach concentrates on the idiosyncratic situations of particular regions (e.g. the region of Prato). The cluster rationale, following Porter's pragmatic perspective, sometimes omits *social* aspects that can be crucial to achieving ambitious targets such as prosperity, low unemployment rates, etc. Academics need to be accurate and precise in defining and developing concepts. In our view the examination in this paper helps to identify similarities and differences and reveal the reasons behind some application of these concepts.

## 6. Final remarks

Being so important to deal with the polarization of firms or even the disparities between regions or uneven development in the current European Union, we found problematic the goals and the means of the document analysed. First, the document is an annex to the EC Communication 'Towards world-class clusters in the European Union: Implementing the broad-based innovation strategy', which possibly amplifies the above-mentioned problems. Second, simplifying complex theories developed by geographers in the 20th century to achieve a unique approach (cluster) necessarily overlooks issues that historically were the subject of important discussion from economists, geographers and historians. Many geographers complain about this *one-size-fits-all* concept. So, *Why not use one concept rather hundreds?*

Also interesting is that the role of universities is as important without a provision of an in-depth analysis of its current role. It is assumed that university has to contribute to this line of thought but some of their members (the academics) are taking part of the debate or simply are unheard.

The authors of the two concepts examined are important. Giacomo Becattini comes from the Emilia Romagna region which has a Communist tradition. Porter is American and probably has a more neo-liberal ideology. Although it would be difficult to claim that Capitalism might be overthrown by, for instance, Communism, Becattini defends what Sir Samuel Brittan called *Capitalism with a human face*. Is this last claim what cluster followers want to submerge?

This paper has some limitations that may affect the robustness and generalization of the conclusions. Although we reviewed some of the literature, both literatures are very large making it impossible to present an exhaustive review. We analysed one specific case - the EC adscription to the cluster approach- in order to understand the impact of these concepts. It would be useful to include more documents and institutions to provide a more complete picture.

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