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**Conference Paper**

## Social capital as a measure of innovation for rural clusters: the case of France and US

52nd Congress of the European Regional Science Association: "Regions in Motion - Breaking the Path", 21-25 August 2012, Bratislava, Slovakia

**Provided in Cooperation with:**

European Regional Science Association (ERSA)

*Suggested Citation:* Ceapraz, Ion Lucian (2012) : Social capital as a measure of innovation for rural clusters: the case of France and US, 52nd Congress of the European Regional Science Association: "Regions in Motion - Breaking the Path", 21-25 August 2012, Bratislava, Slovakia, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

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# **Social capital as a measure of innovation for rural clusters: the case of France and US**

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## **Abstract**

The paper emphasizes the role of social capital in some particular rural clusters like the French “Poles d’Excellence Rurale” (PER) and the U.S. Rural Knowledge Clusters (RKC). The recent revival of the literature on social capital considers this resource as highly valuable when considering the development of rural clusters.

The purpose of our paper is to investigate the various mechanisms of social capital that can release the economic development of these areas. Through bilateral comparisons we are interested in how differences and similarities in social structures between the PER and the RKC may affect rural growth and competitiveness.

There is a growing literature on the correlation between social capital variables and important economic outcomes (Glaeser et al., 2002). We do not intend to investigate how is created the social capital in the rural areas but to underline the ongoing effects of social capital that made these PER and RKC such a successful story. In our opinion, their performance and outcomes are highly dependent on the type of social capital which is expected to contribute to the cooperation and innovation (Staber, 2007) of these rural clusters. According to Staber (2007) some recent OECD papers outline that “there is no one model of social capital and no one type of impact on cluster performance” (OECD, 2002).

An increased interest from political institutions in developing specific tools in starting and maintaining the role of social capital as an important resource is unveiled in recent years in these rural areas. The development of this resource at the individual and community levels is the ultimate goal of sustainable rural development (Dwyer, Findeis, 2008). The tools employed by public and private institutions in Europe and US differ substantially regarding the role of institutions but are commonly similar to the output of rural growth. One important aspect affecting the type of social capital in these rural areas concerns the increasing importance of urbanization and the proximity of rural and urban areas. In this aspect as our paper reveals the French rural areas seem quite different concerning their “rurality” compared with the US counterparts.

JEL-Classification: R10, R11, R12

Key words: “Poles d’Excellence Rurale”, U.S. Rural Knowledge Clusters, Social Capital, Innovation.

## **1. Overview of the social capital**

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According to Portes (1998), “during recent years, the concept of social capital has become one of the most popular exports from sociological theory into everyday language”.

There is neither a precise definition for the concept of social capital nor an epistemological consensus for a single or general measure of social capital. Everything depends on the context and the way it is applied.

Several pioneer works of Bourdieu (1986), Coleman (1988) and Putnam (1993, 1995) emphasize the concept of social capital as the work of social networks, people, groups or organizations.

The social capital defined by Putnam as “those features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions” (Putnam, 1993) or as “features of social life—networks, norms and trust—that enable participants to act together more effectively to pursue shared objectives” (Putnam, 1995) is crucial in understanding how these PER are developing by putting innovation pressure on their territories through various networks.

According to Grootaert and van Bastelaer (2002) the concept of social capital can be also defined as “institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development”. These authors distinguished between the forms and scope of social capital. We are interested particularly in the forms or mechanisms of social capital which enable these rural areas to develop.

Thus we prefer to choose a particular territorial level of analysis in order to have a precise image of social capital, its components and effects in this area.

According to Beekman et al. (2009) “the geographic nature of rural communities has consequences for the type of social capital in rural areas”.

For example there is a definition which came from the economic sociology describing very well the social capital in relation with the territorial context: “a set of social relations of which a single subject (...) or a collective subject (...) can make use at any given moment.

Through the availability of this capital of relations, cognitive resources, such as information, or normative resources, such as trust, allow actors to realize objectives which would not otherwise be realized or which could be obtained at a much higher cost. Moving from the individual to the aggregate level, it may also be said, that a particular territorial context is more or less rich with social capital depending on the extent to which the individual or collective subjects of the same area are involved in more or less widespread networks of relations” (Trigilia, 2001).

According to Woolcock et al. (2000) there are at least seven fields which had employed the term of social capital. Among them we could select the ones related to democracy and governance, collective action and economic development, which seem more appropriate for our research.

## **2. What is a PER (Pole d' Excellence Rurale) and a RKC (Rural Knowledge Cluster)?**

The concept of “Pole d'Excellence Rurale” (PER) is a French policy initiative targeting the devitalized rural zones of more than 30 000 inhabitants without any urban area in their proximity. This unique initiative is supported by the local authorities and is based on the government call for proposals launched in France in 2005. Promoting sustainable development through the creation of these PER is a government policy engagement to revive economically the rural areas for the most effective and appropriate way of economic development.

The PER engage the rural areas to be considered as “growth and excellence reserves at national level” and their policy is based on the assumption that even “the less competitive territories dispose of resources which could be valued economically” (DIACT, 2007).

The policy of creating the PER was conducted following the same steps as in the case of the competitive clusters, that is promoting a rural and local competitiveness related to the rural assets and creation and integration of activities into the local tissue<sup>2</sup>.

Compared to the French Pole d’Excellence Rurale” PER, the U.S. Rural Knowledge Clusters (RKC) are made of “innovative, interrelated groups of firms located outside metropolitan areas, deriving competitive advantages through accumulated, embedded, and imported knowledge among local actors and institutions” (Munnich et al., 2002). These Rural Knowledge Clusters are historically developed clusters in rural areas with specializations in particular industries or technologies and with several types of interrelationships: local companies with similar and/or competing products or technologies, complementary relationships (buyer-supplier), or analogous technologies (Munnich et al., 2002).

### **3. Social capital within the “Poles d’Excellence Rurale”**

Rosenfeld et al. (2000) outline the fact that there is some research coming from Europe which outlines the importance of policies encouraging economies of remote places.

Depending on these policy interventions there are several models of and taxonomies clusters which can be defined. One policy of particular importance is that of considering the social capital (Putnam, 1993) as a resource where clusters account for “innovation and learning focusing on a range of social interactions, organization memberships, and institutional relationships” (Rosenfeld et al., 2000 )

According to Staber (2007), “theoretical interest in the role of social capital in clusters is matched by the growing enthusiasm in public policy circles for those social features of clusters that are believed to make them a viable response to the pressures of globalization”.

Thus government policies concerning rural development and innovation are more and more turned to investments in social capital seen as a key factor in promoting rural competitiveness. According to Calois and Schmitt (2008), Rizzi et al. (2010), social interactions and their byproducts (trust relations, reciprocity and exchanges) (Beekman et al., 2009) start at individual level and diffuse at a superior level through relationships and cooperation. Thus a fundamental dimension for social capital immerses from the territory as every territory disposes of its own characteristics (Rizzi et al., 2010). For example, in rural areas this approach of social capital is of a particular importance since development is based on local networks functioning on ‘bottom–up’ policies (Calois and Schmitt, 2008). According to Beekman et al. (2009) the rural areas are “traditionally known for tight social ties and strong community sense” while “the urban areas, social networks are sometimes thought to be of less relevance”.

The concept of social capital can be used both as a civic social capital and governmental capital (institutional social capital). Both sides have rich roots within the French PER as we look to the different typologies of rural territories and activities that characterize these areas. Moreover these PER are French government initiatives which favor the infusion of institutional social capital through some particular processes as the rural excellency, territorial engineering and private-public partnerships (see Table 1).

These functional characteristics refer to interlocking networks of relationships between individuals, groups and institutions which can form the social capital and can behave in three

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<sup>2</sup> Opposed in this aspect to the competitive cluster, the PER prioritizes a “project management developed by several actors” called a “private-public partnership” where different territorial entities are considered as the principal target for the project.

directions: the first and the second one act like a diffusing network of economic and social advantages throughout the rural territory and the third one, which implies a network of private and public partnerships in order to achieve a bottom-up policy on local involvement communities and actors.

In the first case, the “rural excellency” characterizes the functional core of a PER and is related to the “diffusing effect” of specific comparative advantages of economic and social nature. We mention here the governance as one type of “rural excellency” which allows governments to “outsource” some of its welfare functions to local rural communities (Bifarello, 2002). In the second case this process is supposed to initiate a competition between different rural territories followed by a selection among the “best territorial engineered territories” within the process of “territorial engineering”.

In the third case, the “private-public partnership” of a PER implies a bottom-up policy involving local communities and actors with a certain democratic legitimacy and thus supporting partnerships between local actors somehow in opposition with government “topdown” policies.

The main objective of the first call for proposals for the PER was launched in December 2005 in order to support innovative projects, creating direct and indirect jobs in rural areas.

Concerning the rural excellency, is “the relevance of a label attached to a project (when the sign of quality rather distinguished a product or service). In question is also the nature of the relationship and consistency between the label and the reference to a rural excellency, because if one can judge legitimate to assign a label to a project it may be only since it performs and produces the conditions for excellence. This excellence should therefore involve primarily the quality of the process who chaired the assembly of the project. This quality is at the same time on the approach adopted, the nature and relevance of the criteria that define it (interest goals and program content, continuity of territorial governance, public-private partnerships, consistency and clarity of financing plans)” (Bouvier et al., 2008).

The call for proposals in the case of the PER is made on projected economic perspectives, innovation and sustainable development. It concerns different evolutions related to natural endowments and urban proximity (access to markets). According to Lardon and Pin (2007), the concept of “territorial engineering” represents the foundation of the PER and involves a competition and a selection among the “best territorial engineered territories” Thus the selection for the PER is made among the “best territorial engineered territories”.

That is, this process is called territorial engineering and engaged these rural areas in a sort of competition for their proper selection.

Thus one type of rural excellency of major importance is the territorial governance running through the PER. The PER must satisfy certain criteria in order to be implemented. The policy for the PER on a specific territory is a-priori based on “expected rural spillovers” on the rest of the rural territory and on “leverage effects” on other territories.

According to Basile et al., (2009) it concerns the identification of the subjects of the governance of rural development processes. We can identify several dimensions like “the planning procedure, the management and the monitoring practice and, finally, the control and the accountability of actors” (Basile et al., 2009). As the rural development is considered most of the time as an endogenous process we can question on the role of external institutions on governing such processes. The call for proposals is decisively directed by the government and a private-public partnership is implemented in order to proceed to the creation of this PER. Thus this partnership which involves the state and the civil rural communities in constructing common projects of development is commonly referred as private-public partnership.

As Basile et al. (2009) mention, we can observe a “formal institution that governs the process by means of formal rules and decides the resource use”, the type of resources and use for the traditional activities in these rural areas.

According to Beugelsdijk and Smulders (2009) the concept of social capital was developed in order to study the link between socializing and economic performance. For Grootaert and van Bastelaer (2002) the social capital is defined as “the institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development”.

Table 1: Comparison between a Rural Knowledge Cluster and a Pole d’Excellence Rurale

<b>Rural Knowledge Cluster (RKC)</b>	<b>Pole d’Excellence Rurale (PER)</b>
<i>definition and goals</i>	
“A Rural Knowledge Clusters are innovative, interrelated groups of firms located outside metropolitan areas, deriving competitive advantages through accumulated, embedded, and imported knowledge among local actors and institutions”	A “Pole d’Excellence Rurale” is an initiative sustained by public, private and associative partnership which try to highlight a territory in one of these four comparative advantages (see below) The goal of a PER is employment creation by encouraging research, professional training and use of new technologies
<i>competitive advantages</i>	
“Current factors related to supply or demand conditions, related industries, or local rivalry that give local firms a market advantage” “An historical base of knowledge about an industry or technology that has given rise to current sources of competitive advantage”.	Rural excellency: spatial diffusion One industry(ies) or technology which is source of competitive advantage Access to natural resources Low costs Different competitive advantages related to different typologies of rural territories and activities
<i>agglomeration effects</i>	
“Rural knowledge clusters compensate for disadvantages of scale by developing specializations in particular industries and technologies” “Firms within rural knowledge clusters are bound together in important ways that make their proximity beneficial. These interrelationships may take a variety of forms – local companies may be making similar and/or competing products or technologies, they may be complementary relationships (buyer-supplier), or they may use analogous technologies to make products for different market segments”	A variable degree of socio-economic activities Different degrees of rural localization A project management developed by several actors » called a « private-public partnership » A high degree of factors related to physical space Traditional activities and social forms of organization Local visibility
<i>spillovers</i>	
“Within rural knowledge clusters, local institutions play an important role as catalysts in promoting and nurturing competitive advantages. They help to create, diffuse, and import knowledge that drives innovation, and also mediate relationships and foster cooperation among highly competitive firms. These institutions are often formally organized, such as educational, civic, and governmental institutions”.	Expected rural spillovers based on competition between different territories (territorial competition)/ selection among the “best territorial engineered territories”: - for the employment: economic benefits expected in the territory, evaluation of direct and indirect jobs, project's contribution to the creation and the resumption of activities and businesses - for the sustainable spatial development: impact on resources, water, biodiversity, landscapes,

	<p>impact areas ( land use), social and territorial cohesion</p> <p>- For anchoring in a rural area, including areas of rural revitalization</p> <p>Horizontal links between firms</p>
<b><i>innovation</i></b>	
<p>“Formal and informal institutions that develop around clusters to support the creation, diffusion, and import of knowledge”</p> <p>“High degree of entrepreneurial activity, spin-offs, and continuous product innovation and differentiation”</p> <p>“Rural knowledge clusters exhibit a substantial, localized base of knowledge that is embedded within people and institutions in the community”.</p>	<p>Economic innovation but also social and organizational innovation:</p> <p>Rural Excellency</p> <p>Territorial Engineering</p> <p>Private-public partnership</p>
<b><i>call for proposals/selection</i></b>	
<p>“Historically grounded: history and context are important in the development of rural knowledge clusters”</p> <p>No request for proposals and no government intervention</p>	<p>Different evolutions related to natural endowments and urban proximity (access to markets)</p> <p>Selection among the “best territorial engineered territories”</p> <p>The request for proposals was made on projected economic perspectives, innovation and sustainable development</p>
<b><i>comparative advantages</i></b>	
<p>“Firms within rural knowledge clusters are bound together in important ways that make their proximity beneficial. These interrelationships may take a variety of forms – local companies may be making similar and/or competing products or technologies, they may be complementary relationships (buyer-supplier), or they may use analogous technologies to make products for different market segments”</p>	<p>Promoting natural, cultural and tourism resources</p> <p>To bring out the bio-resources in a food-chain</p> <p>Supply of local services and residential economy</p> <p>Development of industrial and hand-made manufacturing</p>
<b><i>geographical scale</i></b>	
A variable local geographic area	A variable local geographic area
<b><i>local, regional, national and international promotion</i></b>	
Local, national and international promotion	Local promotion

Source: Munnich et al. (2002) and author

#### 4. Social capital within the Rural Knowledge Clusters (RKC)

The rural clusters have different social structures and they can be differentiated in four categories depending on their influence on local economy and the type of intervention: clusters of distinction, clusters of competence, clusters of opportunity and more recently clusters in balance (Ford Foundation, 2009). According to Munnich et al. (2002) “local institutions play an important role as catalysts in promoting and nurturing competitive advantages” and also “help to create, diffuse, and import knowledge that drives innovation”. Moreover the institutions which intervene for maintenance are also “informal in nature, for example, a culture that fosters trust and cooperation, or risk-taking and entrepreneurship” and can “pre-date the development of activity around a rural knowledge cluster, while others form specifically around existing clusters to facilitate their growth (i.e. trade associations, applied research centers)” (Munnich et al., 2002).

Knowledge is crucial when considering the social capital as an asset for the development of RKC. As Munnich et al. (2002) stated, the local institutions can play a very important role in developing the competitive advantages and creating endogenously and exogenously knowledge through innovation, relationships and cooperation between firms (see Table 1). The exogenous knowledge developed by governmental, civic and educational institutions is completed by “a substantial, localized base of knowledge that is embedded within people and institutions in the community” (Munnich et al., 2002).

## **Conclusion**

Our paper outlines differences and similarities of the concept of social capital in two different types of rural cluster, the French “Poles d’Excellence Rurale”(PER) and the U.S.

Rural Knowledge Clusters (RKC) by making a synthesis of social resources and variables considered as vital for both types of clusters (see Table 1). While in the French PER government intervention and local assets seems to achieve fruitful results through specific social mechanism like the rural excellency, territorial engineering and private-public partnerships, in the U.S. counterparts the development of these clusters is historically embedded on local communities on what we call local knowledge made of “high degree of entrepreneurial activity, spin-offs, and continuous product innovation and differentiation” (Munnich et al., 2002).

Further research should emphasize these bilateral comparisons of social capital resources on concrete examples of successful rural clusters and try to measure this type of capital with specific indicators.



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