

# EUROPE

– Reflections on Social Capital,  
Innovation and Regional Development:  
*The Ostuni Consensus*



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# Contents

Preface — KRZYSZTOF PAWŁOWSKI	7
Introduction — MIKEL LANDABASO, ANTONI KUKLIŃSKI, CARLOS ROMÁN	8

## PART I

### REGIONAL DEVELOPMENT MODELS, POLICY ISSUES AND SOCIAL CAPITAL

MARIO PEZZINI: Trends and policy challenges for OECD regions	25
A. MAIRATE: The reform of cohesion policy: old and new challenges	38
ANTONI KUKLIŃSKI: Towards a new model of regional policy	45
JEAN-MARIE ROUSSEAU: The social dimension: an essential factor in sustainable regional development	53
ANGEL ARBONIES: Viruses in Regional Development constrain creation of knowledge regions	64
BÉNÉDICTE MOUTON: Social capital for regional innovation promotion: empirical evidence from Innovative Actions of the European Regional Development Fund (1994–2003)	73
CARLOS ROMÁN: Why Social Capital? What Social Capital?	80
FRANK MOULAERT, JACQUES NUSSBAUMER: Regional Production and Reproduction: The Social Region Frank	93

## PART II

### SOCIAL CAPITAL, INNOVATION NETWORKS, CLUSTERS AND LEARNING REGIONS

MIKEL LANDABASO: The regional economic development relevance of social capital	107
MARIO MARINAZZO: Managing knowledge at local community level to enable social capital's contribution to innovation	117
LYDIA GREUNZ: Knowledge spillovers innovation and social capital	124
KNUT KOSCHATZKY: Social capital and cooperation within innovation systems	134

EDWARD J. MALECKI: Networks, Knowledge and Capital: The Role of Hard and Soft Networks in Regional Development	143
RICHARD J. NUNES, MANUEL HEITOR, PEDRO CONCEIÇÃO: Technological Change and the challenges for Regional Development: building ‘social capital’ in less-favoured regions	152
PHIL COOKE: Social Capital, Embeddedness, and Regional Innovation	162
STUART ROSENFELD: The Social Imperatives of Clusters	176
SERGIO ARZENI, DINA IONESCU: Social Capital and Clusters of Enterprises: some essential questions	183
BJØRN ASHEIM: The Learning Firm in the Learning Region: Innovating through Cooperation and Social Capital Building	193
PAOLO PASIMENI: Social Capital, Culture and Innovation: a different perspective “The Ostuni Consensus”	203 220
<b>POST SCRIPTUM</b>	
MIKEL LANDABASO: Post Scriptum one to the Volume	223
ANTONI KUKLIŃSKI: Post Scriptum two to the Volume	232
The Authors of the Volume	233

# PREFACE

In 2004 the Wyższa Szkoła Biznesu—National-Louis University has decided to establish a New European Publication Forum defined as Recifer Eurofutures Publication Series—REUPUS.

The first two volumes of the New Series were published in 2005:

*Europe—the global challenges*  
*Europe—the strategic choices*

Now in the beginning of 2007 I have the honor and pleasure to introduce to the Third Volume of the REUPUS Series:

*Europe—Reflections on Social Capital*  
*Innovation and Regional Development—The Ostuni Consensus*

The volume is opening a new perspective in the discussions related to the Future of Europe—the perspective of an important paradigm shift in the domain of regional development and regional policy.

Let me express my words of appreciation and gratitude to the eminent Authors and Editors of the volume for the open-minded and very often brainstorming contributions which create the intellectual and pragmatic framework of the New Volume.

*Krzysztof Pawłowski*  
Rector of WSB-NLU

Nowy Sącz  
January 15<sup>th</sup> 2007

STUART ROSENFELD

# THE SOCIAL IMPERATIVES OF CLUSTERS

## Introduction

Companies choose to cluster because they realize that being near others that are like them yields economies of scale, or “externalities” and that these externalities are significant market advantages. Clusters produce two classes of advantages: “hard” externalities based on traded interdependencies and “soft” externalities based on un-traded interdependencies. While the former is more easily measured and the basis for many of the early cluster-based economic development formulations, there is good reason to believe that in today’s economy the latter may be the stronger force for clustering.

Companies want knowledge and information that goes beyond what they can get in their libraries, Internet, and telecommunications. Clusters represent a mediating environment that supports inter-firm relationships and higher levels of un-traded interdependencies, i.e., social capital. In clusters with high levels of social capital, knowledge and innovation is transferred much more readily. Tacit information and knowledge about new technologies, markets, or services is gleaned from personal friendships among managers and entrepreneurs and collaborative business arrangements. Knowledge flows or “leaks” unintentionally and “technologies spread to smaller companies, for example, “through swapping of employees within a common pool of skilled and technical labor developed around the region’s core technology.”<sup>1</sup> The ability to draw on these social networks helps companies make more informed decisions about investments, services, and suppliers. This paper summarizes

1. a few research studies that assess the value companies place on social capital and un-traded interdependencies;
2. the value of cluster associations as structures for social capital and as sources of intelligence; and
3. concerns about exclusionary forms of associative behavior.

## Valuing information

Although the reduced transaction costs that result from the relative ease of trading and entering into joint activities with nearby firms is assumed to be the primary reason for clustering,

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<sup>1</sup> Peter B. Doeringer and David G. Terkla, “Business Strategy and Cross-Industry Clusters,” *Economic Development Quarterly* 9 (August 1995) 225-237.

proximity to sources of applied knowledge and innovation has been found to be equally important to companies. In fact, many place greater value on informal trading of information and knowledge locally than they do on formal business transactions. Unlike formal business trades, however, information trades work best in a social environment that supports reciprocation. It is based on at least a modicum of trust, and the more proprietary and related to a particular market advantage the information is, the stronger the necessary levels of trust. Since companies operate in a competitive environment, they want to hold on to their comparative advantages. Only when they see greater advantage in unity, cooperation, or reciprocation do they share knowledge.

Much of the research on social capital was conducted in the early 1990s when many nations and regions were promoting multi-firm business networks as a competitive strategy. It is important to note that *both* cluster *and* network programs have been predicated on building social capital and encouraging collaboration among firms.

Surveys of companies' proclivity to network and reasons for doing so were conducted in the United Kingdom, the northwestern region of the United States, and Australia's New South Wales. In all three places, survey research found that learning and access to knowledge outranked the "harder" activities such as joint production or marketing in reasons for entering into networks. In the U.S., a private foundation supported the development of four regional "cluster associations," two in wood products, one in engineering, and one in crafts. In each case, the prospective members of the association placed a much higher value on "access to information and learning" than they did on "hard" networks that would produce new products or markets (Table 1). In the less populated regions of the U.S. where these associations formed, relationships among firms had been weak. Prior to the intervention of the associations, companies had few venues for discussing business issues with peers. The pre-initiative survey was reinforced by similar findings in "post-initiative" surveys. They did in fact gain more informally than through joint activities. In Australia (Table 2), the results were not quite as strongly expressed, but sharing know-how outranked every other reason for taking part in a networking arrangement. In the United Kingdom, collaborative learning far outranked any other factor in importance of network participation (Table 3).

Other academic research found that individual friendships among employees within industries leads to the word of mouth exchange of technical information in clusters. A study of specialty steel found that over a year 85 percent of engineers were asked for technical information by colleagues in other firms, and that one in five was asked more than ten times. In some cases, purely personal objectives overruled economic concerns but more often the information helped the recipient without weakening the competitive position of the employer of the source.<sup>2</sup>

It is important to note that a recent research study found monetary relationships among firms *stronger* than non-monetary knowledge-based relationships, although it addressed the issue in a different way. The study asked firms whether social capital leads to greater innovativeness<sup>3</sup> And found that most social capital results from monetary exchanges and that innovators tend to have more external sources of knowledge (to the cluster).

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<sup>2</sup> Stephen Schrader, "Informal technology transfer between firms: Cooperation through information trading," *Research Policy* 20 (1991) 153:170.

<sup>3</sup> Philip Cooke and Nick Clifton, "Social Capital and Small and Medium Enterprise Performance in the United Kingdom, to be published in P. Nijkamp, R. Stogh, and H. deGroot, *Entrepreneurship in the Modern Space Economy* (Dordrecht, Kluwer, 2003).

Table 1

## Survey of members of four business associations in Minnesota and Washington states, 1995

Reason for joining network	Very High	High	Very Low/Low
Access to Information	44%	39%	17%
Learning	31%	48%	21%
Joint product development	16%	31%	53%
Joint marketing	23%	31%	46%
Improving quality	15%	45%	40%

Source: Stuart Rosenfeld, *Research Policy* 25(1996) 247:263

Table 2

## Survey of Firms' Reasons for Joining Network in New South Wales, Australia, 1995

Reason for joining network	Percent
Share know how	16.7
Joint tendering opportunities	13.9
Share training programs/costs	9.7
Enter overseas markets	9.0
Increase market share/sales	7.6

Source: Fulop & Kelly, *Survey of Industry: Network Initiatives in NSW, Final Report*, University of Western Sydney, 1995.

Table 3

## Survey of Relative Value of Participating in a Network in the United Kingdom, 1998

Output of Network	Index of Relative Importance
Collaborative learning	0.74
Process development	0.48
Joint marketing, sales, or distribution	0.44
Purchasing/subcontracting relations	0.36
Product development	0.28
Technology transfer	0.24

Source: Robert Huggins, *Business network policies and economic development*, Pontypridd, UK, 1998.

## Building a Social Infrastructure

Most cluster practitioners believe that a successful cluster requires that the companies have some formal organizational structure. Over the past few years, the centerpiece of nearly every consultant-driven cluster strategy has been the "cluster council," or "cluster association." This emphasis on organizational frameworks emerged because (a) planners and economic developers have come to acknowledge the benefits of local exchanges of information and knowledge and (b) most societies lack the socioeconomic structure to support efficient and extensive exchanges.

The importance of economy-oriented social structures is not new. A tight social fabric was considered fundamental to the functioning of the classical Italian industrial districts. Sebastiano Brusco<sup>4</sup> noted that “local know-how is passed on by doing things and seeing how other people do things through informal chit-chat” and workplace knowledge is rooted in places where “people are linked by the bonds of shared history or values...and where codes of behaviour, lifestyles, employment patterns and expectations are inextricably implicated in productive activity.” Associations exist in Italian industrial districts. In fact, the earliest information about inter-firm collaboration from Emilia Romagna was transmitted by the National Confederation of Artisans, a trade association representing nearly all of the region’s small and mid-sized enterprises. But the social structure in northern Italy is embedded in the community and the associations appear to be valued more for their collective services than their contributions to social capital.

The informal industry-focused atmosphere described by Brusco, however, has become far less common in modern industrialized regions, existing only in a limited number of places. Silicon valley has such social attributes. So does central North Carolina and northeastern Mississippi. Regional associations were not necessary for them to develop strong furniture clusters. But most of the large modern regions that are adopting cluster-based strategies have become much more diversified over time, labor has become much more mobile, and communities have become more heterogeneous. People living in new urban centers have too little shared history and culture to form bonds that can support the exchange of production-based knowledge. Further, as work becomes more knowledge based, the functions and skills become less transparent to the community at large. As a result, most regions use clusters to build a “diversified specialization” strategy, claiming multiple and generic clusters that include a large percent of the region’s workforce.

Therefore regions that want to build economic development policies around clusters believe that they need to create the social environments that encourage the associative behaviors within each “cluster” that Brusco describes in Italian industrial districts. It is the rare regional cluster-based plan that does not call for an organization to represent its region’s clusters. In many parts of the world, membership organizations now are expected to represent the collective interests and even demonstrate the very existence of clusters. Clusters that have either organized themselves into some type of membership-based association or that use existing associative venues to actively promote learning and networking, plans claim, will be more effective in acquiring external economies. Membership associations are expected to add value to clusters in a variety of ways. They can:

1. deliver “real” services at reduced costs to members, as northern Italy’s National Confederation of Artisans (CNA) does for small companies, allowing them to focus on core competencies.
2. influence political decisions—the primary function of most American associations.
3. provide access to knowledge and networking opportunities through conferences and other events that give members a venue to meet and connect.
4. facilitate networking, a primary purpose of many of the organizations formed under the U.S. network programs of the early 1990s, some of which evolved into cluster associations.
5. conduct research or planning for members. They can help them identify market opportunities or address common problems.

Three types of cluster-specific organizations have evolved in the United States. The first is intended to give a cluster an identity and presence and provide a forum for identifying common needs and lobbying for more supportive public policies. The state of Mississippi formed CITMS to represent its small but vital communications and information technology cluster.

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<sup>4</sup> Sebastiano Brusco, “Global Systems and Local Systems,” International Seminar on Local Systems of Small Firms and Job Creation, Paris: Organization for Economic Cooperation and Development, June 1995.

The second is mainly a vehicle to deliver real services to groups of firms more efficiently. The new men's sock testing lab and the industry-wide e-commerce website established by the Hosiery Technology Center in the Catawba Valley of North Carolina give companies access to markets, advice, and sophisticated equipment that no single one of them would have been able to obtain alone.

The third type represents a class of employees within an industry—generally a professional or labor organization with local chapters. This gives employees the opportunity to exchange information about employment and their professions. The exchange of knowledge in the optics and imaging cluster around Rochester, New York occurs through professional associations.

Most regional cluster plans support the first type, trying to form a new organization that gives the cluster its identity and provide a means to initiate and organize “demand-driven cluster initiatives.” The biggest danger in building cluster associations is that they become confused with the cluster itself and not just an element of a larger cluster-based strategy. Measures of success of the cluster association, such as membership or grants received, are mistaken for measures of success of the cluster. Cluster activities are defined exclusively by the actions of the association. Moreover, they are believed to be dependent on a broker or facilitator.

The “Green Book,” an analysis of cluster activities, claims that 89 percent of all cluster initiatives have a facilitator to manage the activity, most of which do this at least part time and have an office. The majority of the initiatives surveyed were financed by government and a third were led by government. Less than one in five was financed by industry. Advocates forget that neither “membership” in an organization nor cooperation is required to be part of the cluster. For decades, many clusters developed and thrived without a single representative association. “Free riders” are important members of the clusters. Simply by virtue of geography, they are able to realize all of the non-exclusive external economies that accrue to members of cluster associations.

## The Potential Weaknesses of Social Capital

Two restrictive characteristics of social capital can reduce its value to a cluster: membership limitations and insularity, or lock-in.

The social capital that serves a cluster does not automatically benefit all firms, people, and places equally. A report from the Organization for Economic Cooperation and Development hypothesizes that “the increasing importance of individual learning within the knowledge based economy produces new forms of social inequalities, through the intensification of the disadvantages experienced by those denied access to learning opportunities.”<sup>5</sup> The Aspen Institute noted that cluster-based initiatives aimed at low-income populations are defined “not simply by absence of resources but by the absence of marketplace relationships that can create opportunities of value to both participants and employers.”<sup>6</sup>

Associations may have exclusionary guidelines. Some limit membership (although most do not). Some meet in places not easily accessible to everyone, or they may operate internally as a “club” in which some insiders gain access to tacit knowledge while others do not. Tightly controlled associations can act as “gated communities” where those not considered part of the “business community” operate at a distinct disadvantage.

<sup>5</sup> OECD, *Innovative Clusters: Drivers of Innovation Systems*, Paris: Organization for Economic Cooperation and Development, 2001.

<sup>6</sup> Peggy Clark and Steven L. Dawson, *Jobs and the Urban Poor: Privately Initiated Sectoral Programs*, Washington, DC: The Aspen Institute, 1995.

Social capital also aids or inhibits an individual's employment and advancement opportunities. Employment, promotions, and deal making are all very dependent on interpersonal relationships and word-of-mouth communications. Most employers, especially in small companies, rely on referrals and recommendations from people they trust rather than taking the time to sift through the massive information available in job banks or employment services.<sup>7</sup> Channels through which information about economic opportunities flow are constricted in places where social and business connections are weak.

People in communities or neighborhoods that are not home to key producers, suppliers, or services and are not part of the current labor market are unlikely to know of new job opportunities in the cluster. In "Photonic Valley," a name given the optical cluster in northeastern Massachusetts, older residents are likely to be employed in low skilled jobs such as janitorial services for the high-tech industries in the surrounding area. In Florida's Palm Beach County, which uses a cluster analysis to frame economic development, existing programs serving low-income residents are not linked to clusters and therefore the residents were unprepared to take advantage of opportunities afforded by tight labor markets.<sup>8</sup> Without guides and incentives, employers are unlikely to find their ways into these communities for training or recruitment. And lacking intermediaries that can relate to both firms in the clusters and communities to serve as guides and make connections, the community or neighborhood will derive little benefit from the cluster. Effective intermediaries can help develop the "bridging relationships that cross social, cultural, and geographic boundaries". These are more difficult to form and sustain than bonding relationships but ultimately they are more useful because they expose participants to new knowledge, potential partners, and employers/employees.

A second danger is regional insularity and parochialism. Poorer and socially isolated regions and populations too often have insufficient access to benchmark practices, innovations, markets, and jobs outside of their region or neighboring regions. While social capital is the medium that transports information and accelerates imitation *inside* a cluster, competitiveness is highly dependent on new information and ideas *outside* the cluster. The most successful clusters have lead firms or associations that either attract or are part of global networks and markets and that employ people who are active in international professional associations and maintain extensive personal networks. These firms regularly benchmark themselves against the best practices anywhere in the world. Because the knowledge comes from a diverse set of sources, the wider the managers cast the net, the more likely a prize, i.e., innovations that can be applied locally, will be caught.

## Summary

It is clear that the social attributes of clusters are vital to their success and that companies value the knowledge and learning associated with inter-firm relationships. Social capital often proves to be the difference in competitiveness of clusters that are "overachievers"<sup>9</sup> and those that are "underachievers" which exist but lack synergy. The major economic policy issue facing those designing cluster-based development strategy is evaluating the need and devising the best role for the public sector in creating a social structure for the cluster. And the major social issue is

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<sup>7</sup> Robert Reich, *The Future of Success: Working and Living in the New Economy*. (New York: Vintage Books, 2000).

<sup>8</sup> Foster-Bey, John, Stuart Rosenfeld, Paul Pryde, and Vance Gragg, *Linking Low-Income People to Economic Opportunity in Palm Beach County*. Final Report to the John D. and Catherine T. MacArthur Foundation. Washington, DC: The Urban Institute, 1999.

<sup>9</sup> *Overachievers: Business Clusters that Work*. Carrboro, North Carolina: Regional Technology Strategies, Inc., 1996

taking some responsibility for ensuring that social capital is fairly distributed and accessible. The former generally takes the form of cluster associations but must refrain from limiting clusters by membership. Clusters are defined by access to external economies, not by meetings or events. The latter are enhanced by intermediaries that can bridge cultural and social boundaries and find connections that benefit both those who have resources and those who do not. Inclusion of all segments of the region's community in the cluster ensures that the potential of wealth creation is fully realized, without pockets of poverty and unemployment that can undermine the region's progress.

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