

**COMPETITIVENESS OF SMALL ENTERPRISES:
CLUSTERS, BUSINESS ENVIRONMENT AND LOCAL DEVELOPMENT**

*Synthesis of the international meeting held at the Inter-American Development Bank on
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Table of Contents

EXECUTIVE SUMMARY	3
I. BACKGROUND	7
II. THE EXPERIENCE OF THE PRODUCTIVE INTEGRATION PROJECTS	8
2.1 VALIDATION OF THE CLUSTER APPROACH	8
2.2 LESSONS LEARNED WITH THE PRODUCTIVE INTEGRATION PROJECTS	10
2.1.1 <i>Project Design</i>	10
2.1.2 <i>Inter-firm governance</i>	11
2.1.3 <i>Sustainability</i>	11
III. EVALUATION, SYSTEMATIZATION AND DISSEMINATION OF KNOWLEDGE.....	13
IV. FROM A CLUSTER APPROACH TOWARDS A TERRITORIAL APPROACH	14
4.1 INNOVATION, TECHNOLOGY AND ROLE OF UNIVERSITIES	15
4.2 THE ROLE OF THE PUBLIC SECTOR	17
4.3 SOCIAL INCLUSION AND POVERTY ALLEVIATION	19
V. NEXT STEPS.....	21
ANNEX I. WHAT DO WE KNOW ABOUT CLUSTERS?	23
ANNEX II. IDB INDICATORS FOR MONITORING AND EVALUATION OF CLUSTER PROJECTS	25

Executive Summary

By summarizing the presentations and discussions of the participants in the meeting “Competitiveness of Small Enterprises: Clusters, Business Environment and Local Development”, this paper aims to find the common thread that ties the themes of the presentations together. The meeting provided a forum to exchange experiences and promote joint learning between the MIF, UNIDO and other development agencies that have been carrying out projects focused on industrial clusters and productive chains. Discussions at the meeting centered around the validation of the industrial cluster approach and lessons learned; evaluation and knowledge dissemination of these projects; the aspects of the territorial development approach that will be key in future projects; and the main features of a new cluster of MIF projects for territorial development.

The experience, and later the evaluation, of both the MIF and UNIDO projects demonstrated that the application of the **industrial cluster approach has been successful**. This approach has stimulated innovation in products, processes, and productive functions, facilitated the access to new markets, and contributed to building or strengthening local institutions (by creating collective norms and organizations). Moreover, in some of the productive integration projects (PIP), there has been a growth in sales, employment, production, productivity, and exports. However, during the meeting it was discussed that the major challenge to identifying lessons learned about cluster projects is the lack of robust tools to measure whether or not such policies are successful. Notwithstanding this limitation, learning in program design (even if not through a formal evaluation) has been possible based on reflective practices included in many MIF and UNIDO projects, especially with respect to project design, inter-firm governance and project sustainability.

There is a significant effort to overcome the challenges that agencies usually face to evaluate projects of this nature. In order to guide this effort, the IDB has developed a number of indicators to monitor and evaluate these projects at the different stages of their execution (see Annex II). Moreover, there is a sizable stock of tacit knowledge in the executing agencies of the projects that can be systematized and disseminated. Within this logic, in May 2007 a **learning community** was created by some of the institutions involved in this family of projects. This community (also called, *community of practice*) has among its members the MIF/IDB, UNIDO, OECD, CEPAL, ILO, Sebrae, and CNI-Sistema Industria Brasil. One of the first products of the learning community is a learning guide directed to the executing agents of a project as well as to policy makers, facilitators, business leaders, local, bilateral and multilateral organizations.

The experience of the industrial cluster and supply chain projects brought into relief the importance of three factors—project governance, territorial assets, and public-private collaboration—that were overlooked by the cluster approach. These factors need to be included in a more encompassing **territorial approach**, in order to reach broad local development objectives. First, projects operate within a broad institutional framework, which includes local governments, universities, and technological centers. In the previous projects, it appeared clearly that the concept of competitiveness applies not only

to firms and their systems (clusters or supply chains), but also to the geographic context in which they operate. This requires a complex form of governance, involving key actors concerned with the development of the region and selected productive sectors. In this light, local development projects involve a large number of institutional actors and firms, which usually do not have pre-existing mechanisms of coordination, and inevitably are locked in historic patterns of interaction. The challenge is to transform natural rivalries among institutions into competition based on results through institutionalization of cooperative behavior. Therefore, **project governance** assumes an important weight in projects, and it will often demand for more attention during project design. In some cases, project design involves specific activities to increase the capacities of the institutions involved. Second, projects focusing on industrial clusters and supply chains have shown the dependence of firms, especially SMEs, on the local and regional context for many inputs and factors, which ultimately influence overall firm competitiveness (these factors are often called *territorial assets*). Third, the experience of the PIPs also made clear that the competitiveness of SMEs, and therefore of a region, not only depends on associationalism among firms, but also on associations between local businesses and governments. This **public-private collaboration** can play an important role in forging partnerships with the knowledge sector in three key strategic areas: (i) technological development; (ii) in improving the local business climate through the design of the regulatory framework and its implementation (especially towards streamlining public sector regulations); and (iii) in using productive territorial development initiatives as a tool for social inclusion and regional equalization (in many countries, sub-national governments are collaborating with the business and knowledge sectors to boost the competitiveness of SMEs in marginalized, impoverished localities). These three areas in which collaboration between the public sector and the business and knowledge sectors can take place have been thoroughly discussed during the meeting and are described as follows.

The strength and dynamism of local economies depends on the ability of local firms to adapt to changing markets and technologies by continually introducing commercially viable products, services, and production processes—that is, by **innovating successfully**. The ability of innovating depends on the capabilities of local firms to take up new technological and market knowledge and to apply it effectively. Given that any national territory has a number of imbalances in terms of sectors, institutions and “geography,” it is important to work at the local level to foster innovation and, therefore, to support regional systems of innovation. A **regional system of innovation (RSI)** is a mix of institutions, firms and organizations that interact in a sub-national, delimited geographic area in order to give resources to activities that generate, transmit, or consume knowledge that is used for innovation in processes, products and management. Within RSI, universities become a central actor and play an important role in supporting local economic development through their contributions to local industrial innovation processes.

The experience of PIP and UNIDO projects showed the importance of the public sector and of its interaction with the private sector in order to generate sustainable economic development and increased firm competitiveness. This is a fairly new topic, especially in

projects that target small and medium enterprises. However, there are **two basic roles of the public sector** that have gained increasing attention: (1) improving the **business climate** through bureaucratic streamlining: the MIF has been carrying out a family of projects directed to administrative streamlining to create a better interface between the public and private sectors, reduce informality, and improve the business environment; these projects resulted in the reduction of the number of procedures and licenses, better communication between public and private actors, sustainability of the administrative changes, and integration of all levels of government; and (2) **enforcing regulations** (especially labor and environmental regulations): this is an area in which the public sector play a prominent role and in which there is space for collaboration with other actors; ongoing research at MIT found that in many success stories of economic development in Brazil economic development agencies did not play a key role in fostering upgrading, but instead regulatory agencies were central actors and their action set a prior stage for the region development; this research shows an unexpected role of the regulatory agencies for local economic development, and illustrates that the often perceived trade-off between an improved business climate and enforcement of labor, environmental and other regulatory laws can be overcome through collaboration between the business and the regulation side.

Understanding the pro-poor consequences of cluster programs and their potential contribution for **social inclusion** is particularly important in a region like LAC, where excluded groups are sometimes the majority in many countries. However, the cluster literature has historically tended to focus on issues relating to the competitiveness of firms based on the economic advantages that clustering could engender. What is often neglected by researchers and policymakers is the fact that in many cases small firm clusters cater to, or provide employment for, the poor. Much research still needs to be done in this area, but the evidence of various cluster experiences suggests some initial conclusions. Industrial clusters can have a direct effect on poverty by generating **employment, income** and **well-being** for workers within the cluster. In addition, industrial clusters enhance the ability of small firms to compete in global markets, while at the same time promoting sustainable employment and incomes and, therefore, improving the situation for the working poor. This effect on poverty reduction is explained because SMEs (that are a significant component of clusters) account for a large proportion of manufacturing employment in developing countries, and they are predominant in labor-intensive sectors where mostly working poor are employed.

Building on the experience and lessons learned with the cluster of Projects of Production Integration (PIP) and with UNIDO's projects, and to respond to a growing demand in the region for projects that support regionally based productive development initiatives, the MIF is launching a **new cluster of projects** that focus on **local competitiveness**. The goal of the projects in this cluster is to increase the developmental potential of SMEs in a particular regions by strengthening the competitive factors (territorial assets) of the locality, and, consequently, to improve the developmental potential of the region itself. Territories in these projects are defined as delimited economic regions with similar or shared productive characteristics, which may or may not coincide with a municipal or regional government jurisdiction. Each project will be organized around one or two

strategically important sectors or supply chains of the regional economy. Particular attention will also be paid to the structure of governance for these projects.

I. Background

Over the past five years, the MIF has carried out Productive Integration Projects (PIP) in order to improve the competitiveness of clusters of micro, small and medium sized enterprises through networking promotion.¹ These projects form a group of similar initiatives, called “*clusters of projects*”,² that has generated a network for learning and experience exchange (PIP network). Similar to the MIF, UNIDO has also implemented projects for the development of productive clusters and business linkages in Latin America, Asia and Africa aiming at promoting local entrepreneurial development. In order to exchange experiences and promote joint learning between the two organizations as well as with other development agencies, the MIF and UNIDO organized an international meeting, that was held in Washington D.C. on October 29-30, 2007. This meeting was the last one of a series that, as part of the PIP network, the MIF has annually held,³ and had three objectives. First, review experiences and results of the PIP cluster projects and UNIDO projects including results and best practices. In this context, experiences from the projects were presented in a direct, dynamic, and easy way to understand. Second, identify ways to strengthen the network and, at the same time, to structure a community of learning. Third, present criteria and framework of a second generation of projects, a new MIF cluster, that focuses on territorial development initiatives based on public-private collaboration. Overall, the meeting contributed to the debate over conditions that determine the competitiveness of small businesses—particularly, the impact of policies focused on the promotion of *clusters*, i.e local production systems that facilitate linkages among enterprises for collective efficiency and a local coherent and supportive institutional framework.

This paper highlights the main issues and concepts that were discussed during the meeting. By summarizing the presentations and discussions of the participants, the paper aims to find the common thread that ties all of them. The paper is organized as follows. Section II presents qualitative and quantitative data that validate the approach used in these projects and discusses some of the lessons learned through these projects. Section

¹ The concept of networking or productive integration includes the development of clusters, groupings and productive chains.

² With these project groups, MIF proposes to: (i) identify better practices, (ii) disseminate lessons learned, (iii) develop a network between initiatives and a work framework that allows to emphasize the learning process and measurement of results, and (iv) the public diffusion of reached results.

³ The first PIP network workshop (2003) led to the formulation of a shared conceptual framework and fostered the analysis of several aspects of the project execution process. In the second workshop (2004), the following issues were debated: (i) the start-up phase of projects; (ii) the characteristics of an efficient monitoring system; and (iii) the inclusion of PIP projects in local economic development processes. The third workshop (2005) reviewed issues of: (i) trust building and cooperation among businesses; (ii) market access; and (iii) project governance. Finally, in the last workshop (2006), aspects of project sustainability and diffusion of innovative behaviors were discussed. Most recently in May 2007, the MIF organized in Washington, D.C., a meeting on “Knowledge and Learning from Experience, The Value Chain and Cluster Projects” with the participation of representatives of the Latin-American region as well as of international agencies interested in the topic. The objective of this meeting was to identify in what areas the PIP experience, as well as the experience of other agencies, could be combined for the generation of new knowledge; and to devise guidelines for knowledge transfer through the systematization of existing tools and methodologies.

III discusses evaluation and knowledge dissemination aspects of the projects on industrial clusters and supply chains. Section IV analyzes some of the aspects of the territorial development approach that will be key in future projects. This section emphasizes technological innovation, the role of the public sector, and poverty reduction/social inclusion. To conclude, section V sketches out the main features of a new cluster of MIF projects for territorial development. To complement the paper, annex I reviews the literature on industrial districts and clusters, and annex II lists the IDB indicators used for cluster projects.

II. The Experience of the Productive Integration Projects

2.1 Validation of the Cluster Approach⁴

The new system of production based on “flexible specialization” (Piore and Sabel, 1987) that replaced the fordist mass production systems resumed a form of work organization that had been forgotten for some time and that is common in the Italian industrial districts. The industrial district is characterized by the presence of small firms specialized in one phase of the production that compete with other firms within the same phase, but collaborate with the firms operating in other phases of the production chain to produce the final good. This geographical agglomeration, typical also of *industrial clusters*, can potentially help small firms overcome limitations associated with size, promote technological development, and enhance their ability to compete in local and global markets.⁵

Building on this concept, the MIF Productive Integration projects (PIPs) have adopted a cluster approach, privileging a focus on the internal relationship in the cluster. To date, MIF approved 19 PIPs, totaling US\$44.1. These projects covered 71 business networks or clusters in 16 countries. The main objective of these projects was to improve SMEs competitiveness through the creation of horizontal networks and supply chains. The beneficiaries were groups of SMEs interested in a “competitive cooperation” with other SMEs, in a defined geographical area. Similarly, UNIDO has implemented projects for the development of productive clusters and business linkages in Latin America, Asia and Africa. These projects aimed at promoting local entrepreneurial development by stimulating joint action and collective efficiency among local SMEs. The projects also helped the emergence of a local governance system supportive of private sector initiatives.

The experience, and later the evaluation, of both the MIF and UNIDO projects demonstrated that the application of the cluster approach has: stimulated the innovation of products, processes, and productive functions; facilitated the access to new markets; and contributed to the creation or strengthening of institutions (by building collective norms and organizations). In some of the PIP projects, there has been a growth in sales (Cordoba, Uva Isabella, furniture and textiles in Santiago de los Caballeros, APLs in Brazil), employment (Uruguay, Uva Isabella, Santiago de los Caballeros, Campina

⁴ Presentations by Marco Dini, Carlo Ferraro, Claudio Cortellese, Felix Mitnik, Daniel Hernandez-Ruiz, Giovanna Ceglie, Pastora Sandino, Mukesh Gulati.

⁵ For a more detailed review of industrial districts and clusters, see Annex I.

Grande and Tobias Barreto in Brazil), production (Uruguay, Uva Isabella, Santiago de los Caballeros, Tobias Barreto and Nova Friburgo in Brazil), productivity (Uva Isabella, Santiago de los Caballeros, Paragominas and Nova Friburgo in Brazil), and exports (Uruguay, leather and shoes in Guanajuato, and Santiago de los Caballeros). This growth in some cases has been measured in absolute values, while in others, when data for the sector were available, the growth was measured in relative terms compared with the rest of the sector. For example, the table below shows the important results reached in the Uva Isabella project in terms of employment, production, productivity and sales. The cluster results are measured against the rest of the sector (green cells), with the exception of sales growth, that is measured in absolute terms (yellow cell). Growth was measured over 2001-2004 period (first row) and 2001-2005 (second row).

Uva Isabella - % Growth

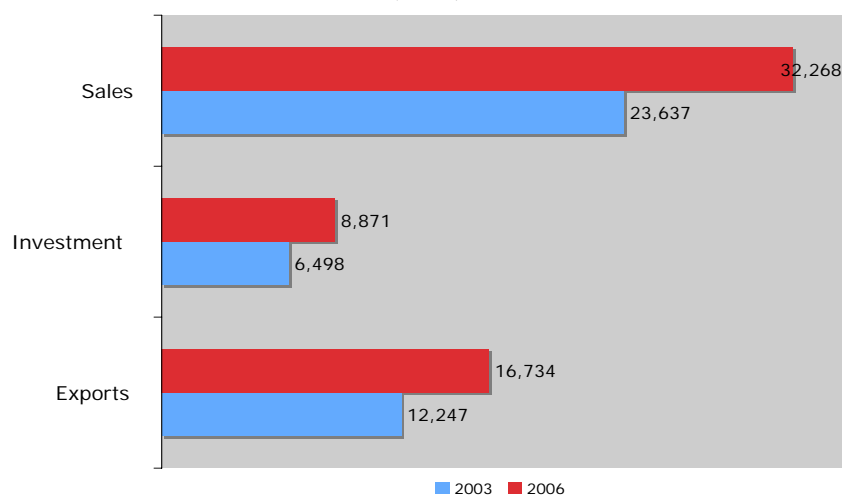
Period	Beneficiary Firms	Employment	Production	Productivity	Sales
2001-2004	320	100% ¹	24% ¹	40% ¹	
2001-2005	320	NA	48% ¹	60% ¹	260% ²

¹Growth relative to the rest of the sector.

²Growth measured in absolute terms for the beneficiary firms.

Similarly, in the UNIDO project in Nicaragua, the analysis of the three clusters in Masaya demonstrates a growth in exports, investment and sales, that on average has been 11-12% per year (see graph below). In the case of the dairy cluster in Chontales, exports increased from US\$5.64 million in 2000 to US\$12.77 in 2006. Moreover, firms in this cluster have improved their production process through new technologies, that in turn helped explore new markets, both in terms of final destination (US, Guatemala, and Mexico) and new products (queso madurado, Morolique pastorizado).

Three Manufacturing Clusters in Masaya (Nicaragua) – Average indicator per firm (US\$)



In some projects the approach yielded an impact in terms of cost-benefits. In Cordoba, for example, the return rate to investment was the highest: for each dollar invested in the

project, there has been seven dollars in social return. Moreover, when considering only the MIF investment, the return rate was US\$14 for each dollar invested. These results were possible because (i) the project was designed on the basis of a rigorous analysis, (ii) MIF was flexible enough to allow a better response to the needs of the private sector, (iii) there was a unit of two people exclusively dedicated to the monitoring and evaluation system, and (iv) because the entrepreneurs were empowered with respect to the use of the resources and to the type of activities to be carried out within the project.

Overall, the cluster approach has been flexible—in that it has been used in different contexts through different executing mechanisms and strategies. Followings are some of the dimensions in which the contexts varied:

- Firm size: from micro to medium.
- Type of sectors: modern vs. traditional.
- Realities: marginal vs. boosting.
- Executing agency of the project: public, such as PROMPYME and COFOCE, private such as APEN and APLARI, mixed, such as ADEL Velez, or universities, like in the case of Los Andes.
- Amount of investment: from US\$150,000 to over US\$1,500,000.
- Scope of the initiative: ranging from one to several productive systems.
- Different strategies adapted to different realities: ranging from the promotion of firm networks, to the promotion of clusters, or even of more complex activity.

2.2 Lessons Learned with the Productive Integration Projects⁶

The lack of robust tools to measure whether or not such policies are successful remains the major challenge to identifying lessons learned about cluster projects. Despite this challenge, learning in program design, even if not through a formal evaluation, has been possible based on reflective practices included in many MIF and UNIDO projects. This learning can help at least improve the likelihood that these programs will be successful in their ultimate goals. This section reviews some of these lessons.

2.1.1 Project Design

Much learning has been accumulated with respect to project design. First, over time it became evident that while designing these types of projects it is critical to balance short with long run goals. This is important because having some immediate, concrete benefits in the short term help keep people involved and motivated, while a long time horizon help consolidate collective action. Also, if in the project design the approach used could be somewhat standardized and rely on a set of tools that have already been experimented elsewhere, successful projects are usually tailored to the specific case that they are addressing. Second, project designers face usually a trade-off between being inclusive by taking into consideration the needs of everybody (wish list approach), and looking for a minimum common denominator by identifying few items that are relevant to all actors. Both approach have negative sides. On the one hand, the wish list, by being inclusive, has the risk to paralyze the project because it could be difficult to reach a consensus

⁶ Based on presentations by Marco Dini, Giovanna Ceglie, Danielle Mazzonis, Aldo Vallejo, Claudio Maggi, Nathalie Cely.

around a set of activities. On the other hand, the minimum common denominator approach may focus on marginal needs, in that they may be the only ones common to everybody. Therefore, the two approaches need to be balanced. Third, once the objectives of the project have been identified, the experience suggests that the nature and size of the possible activities/interventions of the projects have to be presented very clearly to the local actors, in order to avoid creating false expectations. At the same time, during the implementation of the project, the executing agency has the task to keep the project on track with the stated goals and strategy in order to maximize the impact of the single activities and avoid dispersing the effect of these activities. Fourth, in the design and preliminary phases of a project, a participatory process proved to be effective in a number of ways. On the one hand, it is clear now that no single actor alone, not even the state, is able to answer all questions. Therefore, a joint effort is needed with the contribution of different actors, public and private, and the participation of the direct beneficiaries. On the other hand, involving local actors facilitates the process of taking ownership of the project because these actors usually play a role in the programs and activities of the project. This circumstance has also the positive effect of inducing the development of local skills, important for the sustainability of the project and for future activities. Finally, given that the process of cluster development can be long, slow, complicated and can involve a variety of actors, in these projects more than in others it is required some flexibility in the procedures of the institutions that finance and implement the program.

2.1.2 Inter-firm governance

Another set of lessons from this family of projects concerns the governance among firms of a cluster or a productive chain. Inter-firm governance is the ensemble of motivations, incentives, and mutual trust that together represent the “intangible assets” of an initiative of cluster or firm network. This governance is determined by the nature and distribution of leadership within the chain and in the outside environment, by the willingness of firms to associate, and by the quality and depth of the economic-productive relationships among the actors of the chain. Inter-firm governance within a productive chain or cluster is important because (i) it can influence the distribution of the benefits among the actors of the chain (large firms vs. small firms), (ii) help manage divergent interests along the chain, (iii) determine what type of collective action the group of firms can undertake, (iv) increase or decrease transaction costs for collective strategies or activities, and (v) influence the sustainability of the project. This type of governance is influenced by internal and external factors. Among the internal factors, there are leadership, ability of the firms to compete, level of cohesion among firms, firm inclination to associate, and the existence of participation and decision rules. In terms of the external factors, the nature and structure of the inter-firm governance is influenced by (i) market dynamics, (ii) access to critical factors, and (iii) institutional, territorial, and regulatory environment.

2.1.3 Sustainability⁷

Probably the main lesson learned for the sustainability of cluster projects concerns the sustainability of collective action, which is at the heart of any cluster projects. Based on the experiences of these projects, collective action is sustainable (i.e., lasts even after the

⁷ Based on presentations by Danielle Mazzonis, Aldo Vallejo, Marco Dini, Giovanna Ceglie, Pastora Sandino, Lorena Solorzano.

end of the project) when it involves: processes of collective efficiency (new ways of buying, producing, selling or training human resources); new knowledge whose growth depends on collective work; and new forms of cooperation among firms and between them and institutions (universities, municipal governments, international organizations, etc.). In particular, firm associations tend to last when firms go from planning processes together to planning strategies together; when associations involve actors that can keep alive the collective activities already started or that can generate new opportunities for increased competitiveness; and when there is a mechanism of inter-firm governance. The sustainability of collective action also depends on the actors that are carrying them out: if a collective action is carried out mostly by a group of firms, then sustainability is achieved through a major emphasis on the economic results of the action; conversely, if the action is carried out by a local institution, directed to the territorial coordination in order to reach collective benefits, then sustainability is possible by empowering local actors and reaching consensus among them.

Another factor that can make a project for cluster development sustainable is actually to look outside the boundaries of the cluster. Indeed, the key of successes in many of these projects has been going outside the logic of the individual and discontinuous project and moving into a policy-oriented logic, often tapping into existing policies at the national level. For example, in the case of *Exporta El Salvador*, having the program inserted in the National Strategy for Exports has been important for inter-institutional coordination and governance. This design created institutional capital that could lead towards the production of collective goods. Broadly, in order to ensure the sustainability of institutional promotion, discontinuous projects need to be transformed into government policies (at the local or national level), like in the case of COFOCE in Guanajuato, SEBRAE in Brazil, and ADEC in Córdoba.

Finally, the experience of both MIF and UNIDO has shown the centrality of the human factor—the success of these projects largely depends on the people that carry them on, their skills and their motivation. Therefore, in all of the projects there has been a huge emphasis in human resources development. To ensure the success, and therefore the sustainability, training of human resources has to be a continuous and enduring effort, which needs to be fed through the identification, analysis and dissemination of good practices and methodologies. Having local actors trained allows these same people to follow the implementation of the project (ensuring continuity and closeness) and provides them the opportunity to use their newly acquired skills in similar projects involving clusters and supply chains. In particular, local entrepreneurs that have been leaders and part of these collective initiatives are often motivated to undertake collective activities with other enterprises.⁸

⁸ The sustainability of collective action, such as consortia, depends also on the availability of professionally skilled human resources. In particular, in order to have sustainable consortia that last over time, it is indispensable to have managers and directors that are trained in commercial issues, with experience in the sector and with ability of facilitate and manage a group of firms—all aspects that are difficult to combine. Hence, the importance of training potential managers of consortia.

III. Evaluation, systematization and dissemination of knowledge⁹

Notwithstanding the many examples of policy that promote and support industrial clusters, there is little evidence (hard data) to convince the skeptics of this approach. Evaluations are not available for many programs, although several use some sort of evaluation or monitoring component for on-going funding decisions. We do not have enough evidence because many tangible results are expected in the long term, while many cluster development initiatives are relatively recent, and because there is an intrinsic complexity in measuring concrete impacts of these projects. There are three main challenges for monitoring and evaluating these initiatives. First, the presence of multiple goals set at different times—goals in the long, medium and short run¹⁰. Second, there is a multitude of key actors for the success of such initiatives: individual firms, government (at all levels), firm association, agencies and local institutes (technology, health, training, etc.), and universities. Finally, there is a challenge in terms of collecting data and information because each one of these actors has and can supply relevant information for monitoring and evaluation. The problems related to this last point are that SMEs often do not have good information (or do not want to share it). Moreover, secondary sources of data are usually of low quality, with inadequate historical series, and control groups are not used because of expense. Given all these constraints, the IDB has developed a number of indicators to monitor and evaluate these projects at the different stages of their execution (see Annex II). Past experience suggests that this typology of projects should be evaluated, if possible, by measuring the performance of a cluster that benefited of such a program against the performance of a similar cluster, in a different geographic area but in the same country, that did not benefit of a similar program. Also, it should always be evaluated the performance of the cluster as a whole, and not measuring the impact on individual firms.

The challenges for evaluation are enormous, but considering the increase in the resources invested in this type of initiatives around the world, there is a growing need to show concrete results. For this reason, today there are improvements and learning among executing agencies, financial institutions and public agencies about how to deal with these challenges. In particular, there is a huge capital of tacit knowledge in the executing agencies of the projects that can be systematized and disseminated. Within this logic, in May 2007 a learning community was created by some of the institutions involved in this family of projects. This community (also called, community of practice) has among its members the MIF/IDB, UNIDO, OECD, CEPAL, ILO, Sebrae, and CNI-Sistema Industria Brasil. The main objectives of the community are to identify areas of knowledge resulted from the experience with these projects, and developing learning guides and methodologies in order to disseminate this knowledge through the systematization of tools and products already developed by the member institutions. This

⁹ Based on presentations by Gabriel Casaburi, Giovanna Ceglie, Alfredo Giró Quincke and Laila Chloe, Francisco Albuquerque.

¹⁰ Goals in the long run include: local development, economic growth, export increase, better employment, increase in productivity and innovation for local firms; in the medium run: increase in the coordination among institutions, increase in the cooperation among firms, better business environment for local firms; and in the short run: mobilization of local actors, initial adhesion and leadership development of the private sector, execution of planned activities.

work will lead, on one hand, to make recommendations to repeat similar projects in different contexts and scopes, to find potential partners and to identify innovative areas for future projects; on the other hand, it will make available to all member organizations and their networks, experts that have developed significant knowledge and experience in the area in order to develop future projects on clusters, business network and local economic development. One of the first products of the learning community is a map with the state-of-the-art of the knowledge materials built with the contribution of the members of the community. All participant organizations have made available the materials that they produced on their own (learning guides, books, papers, reports, training kits, manuals, methodologies, websites, etc.) and that could be useful to share with the entire community. The second product fruit of this knowledge sharing is a learning guide directed to the executing agents of a project as well as to policy makers, facilitators, business leaders, local, bilateral and multilateral organizations. The goal of the guide is to provide technical knowledge and tools to approach the planning, execution, monitoring and evaluation of strategies of local economic development.

IV. From a Cluster Approach towards a Territorial Approach¹¹

The experience of the industrial cluster and supply chain projects brought into relief the importance of three factors—project governance, territorial assets, and public-private collaboration—that were overlooked by the cluster approach and that need to be included in a more encompassing, territorial approach in order to reach the ultimate goal of local development. The first factor concerns the broad institutional framework within which the projects operate, including local governments, universities, and technological centers. In the previous projects appeared clearly that the concept of competitiveness applies not only to firms and their systems (clusters or supply chains), but also to the geographic context in which they operate. This requires a complex form of governance, involving key actors concerned with the development of the target region and the selected productive sectors and their mutual agreement to collaborate. These actors can be representative of local governments, of the local productive sectors (business association, but also individual firms that have a leadership role in the region), and of knowledge institutions. In this light, a local development project involves a large number of institutional actors and firms, that usually do not have a mechanism of forced coordination, and inevitably have an historic background, with all the actors (firms and institutions) coming to the table with their luggage of experience, culture, understandings and conflicts. The big challenge is to transform natural rivalries among institutions into competition based on results through a cooperative behavior. Therefore, project governance assumes an important weight in projects, and it will often demands for more attention during project design and in some cases specific activities to increase the capacities of the involved institutions.

Another element that projects focusing on industrial clusters and supply chains have shown is the dependence of firms, especially SMEs, on the local and regional context for many inputs and factors, which ultimately influence overall firm competitiveness. These factors, also identified as *territorial assets*, include the raw material and natural resource base of a region, the local pool of skilled and specialized labor, the region's pool of R&D

¹¹ Based on presentations by Claudio Cortellese and Robert Daughters, Karen Maguire, Renato Caporali.

institutions, and the provision of public goods in the region.¹² The experience of the PIPs also made clear that the competitiveness of SMEs, and therefore of a region, not only depends on associationalism among firms, but also on associations between local businesses and governments. This public-private collaboration can play an important role in forging partnerships with the knowledge sector in key strategic areas, such as technological development, logistic systems, and environmental control; in improving the local business climate through the design of the regulatory framework and its implementation (especially towards streamlining public sector regulations); and in using productive territorial development initiatives as a tool for social inclusion and regional equalization (in many countries, sub-national governments are collaborating with the business and knowledge sectors to boost the competitiveness of SMEs in marginalized, impoverished localities). These three areas in which collaboration between the public sector and the business and knowledge sectors can take place are discussed in the following sub-sections.

4.1 Innovation, technology and role of universities¹³

The strength and dynamism of local economies depends on the ability of local firms to adapt to changing markets and technologies by continually introducing commercially viable products, services, and production processes—that is, by innovating successfully. Not all local economies adapt with equal success. The outcome depends on the capabilities of local firms to take up new technological and market knowledge and to apply it effectively. Given that any national territory has a number of imbalances in terms of sectors, institutions and “geography,” there is a need to work at the local level to foster innovation and, therefore, to support regional systems of innovation.

A regional system of innovation (RSI) is a mix of institutions, firms and organizations that interact in a sub-national, delimited geographic area in order to give resources to activities that generate, transmit, or consume knowledge that is used for innovation in processes, products and management, that in turn will foster the competitiveness of firms in a specific locality. Programs directed to RSI aim at supporting technological upgrading in processes of productive integration (horizontal integration, value chain or clusters) in order to improve the competitiveness of local firms.¹⁴ These projects typically involve: (i) incentives for private investment in R&D in order to produce local innovation; (ii) support to and development of linkages among the institutions that form the RSI (universities, technological and innovation centers, firm associations), between them and international technological centers and between them and the local productive fabrics; (iii) technological transfer from abroad or from other regions; (iv) creation of an environment conducive to technological innovation; and (v) local/regional marketing.

¹² The term “public goods” here refers to: the region’s economic infrastructure networks, its pool of social capital, and a good local and regional government that supports effective business growth, for example through streamlined business permitting and regulation procedures.

¹³ Based on presentations by Mark Drabenstott, Juan José Llisterri, Miguel Barceló.

¹⁴ The main actors involved in these programs are: foundations; firms grouped in clusters, value chains, or sectors; individual firms (as leaders or participants); university and research centers; centers for local/regional technological development; laboratories; local/regional governments.

In the context of RSI, universities play an important role in supporting local economic development through their contributions to local industrial innovation processes. Universities contribute to local innovation processes in a variety of ways. At present, the major focus of universities is to aid with technology transfer. Many universities are seeking to exploit their laboratory discoveries by patenting and licensing intellectual property to local firms. But often this is not the most important contribution. In addition, universities can help to: attract new human, knowledge, and financial resources from elsewhere; adapt knowledge originating elsewhere to local conditions; integrate previously separate areas of technological activity; and unlock and redirect knowledge that is already present in the region but not being put to productive use. In addition, very often the university's most important contribution is education and serving as a public space for ongoing local conversations about the future direction of technologies and markets.

However, there are several problems associated to the role of universities in local economic development: innovation is usually scattered across separate research centers, economic benefits flow to unknown locations, competitive needs of regions are often not understood by universities, and it is not clear which type of innovations might help firms. Also, the university's role in local innovation processes depends on what kind of industrial transformation is occurring in the local economy—new industry formation, industry transplantation, industry diversification, and industry upgrading are each associated with a different pattern of technology take-up. Consequently, universities need a stronger awareness of the pathways along which local industries are developing and they should seek to align their own contributions with what is actually happening in the local economy. This means developing an understanding of the particular circumstances and needs of local industries, and of the strengths and weaknesses of their own institutions. In other words, this means seeking a fit between local industry needs and internal university capabilities.

22@Barcelona

The 22@Barcelona project represents an example of how to regain the productive vocation of a *brownfield*,* the Poble Nou District in Barcelona, and to create a pole of science, technology and culture. The aim of the project is to transform the industrial area of the Barcelona Poble Nou District, which for over one century was the driving force of the local economy, into a new model of a knowledge environment that promotes collaboration between university, technology and the business world through new forms of partnerships and synergies. The 22@Barcelona project, approved by the Barcelona City Council in 2000, involves the transformation of 200 hectares of industrial land in the center of Barcelona into an innovative productive district, aimed at concentrating and developing knowledge intensive activities. As a strategy for economic revitalization, the 22@Barcelona project creates an environment conducive to the development of the most innovative activities of the knowledge economy—activities that count on human talent as their main productive resource, whatever economic sector they may be in. These include: research, life science, design, engineering, culture or multimedia among others. These activities are characterized by their intensive use of information and communication technologies and of physical space.

After completing a first phase of urban renewal, the 22@Barcelona project has moved into a new phase of intensively fostering economic and cultural renewal: near to forty projects are

currently under way, in sectors such as the media, ICT, medical technologies or energy sectors. The idea is to develop areas of excellence in those sectors in which Barcelona could take a leading role in Europe, by concentrating firms, public entities and science and technology reference centers from these areas of knowledge in the same physical territory. Since 2000, almost 930 companies have located their headquarters or offices in the area, most of them in the ICT, Media, bio and energy sectors.

Media cluster

Barcelona Media Park is one of the most representative projects of the 22@Barcelona District, with its ambition to stand as a center of reference to the audiovisual sector as a whole. It draws together the main private and public players of the sector with the aim to improving their competitive edge and international projection. The goal of Barcelona Media Park is to boost the levels of production, culture and research amongst the Barcelona and Catalan media sector, with the establishment of a vast multidisciplinary center. It is the result of the cooperation of different public and private sector reference centers which together offer technical facilities and office space for sector related activities, including university and continuing training, research and technology transfer centers, audiovisual enterprise incubators and services, short-stay halls of residence for students, teachers and business people, as well as spaces for shows and other events aimed at fostering interaction with the surrounding environment.

* *Brownfields* are abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contaminations.

4.2 The role of the public sector¹⁵

The experience of PIP and UNIDO projects showed the importance of the public sector and of its interaction with the private sector in order to generate sustainable economic development and increased firm competitiveness. Future projects need to take the public sector into account and recognizing its role, not just as a welfare state, but as an actor that creates the conditions for economic development. This is a fairly new topic, especially in projects that target small and medium enterprises. However, there are two basic roles of the public sector that have gained increasing attention: improving the business climate through bureaucratic streamlining, and enforcing regulation (especially labor and environmental regulations).

In a context of widespread informality—in Latin America between 60% and 90% of firms are informal—and unfriendly environment to business competitiveness, the MIF has been carrying out a family of projects directed to administrative streamlining precisely to create a better interface between the public and private sectors, reduce informality, and improve the business environment.¹⁶ These projects resulted in the reduction of the number of procedures and licenses, better communication between public and private actors, sustainability of the administrative changes, and integration of all levels of government (national, provincial/state, and municipal). The main lesson learned with these projects is that firms decided to register because, as a consequence of their formalization, they could access a number of services for business development. Therefore, the conclusion implied by these projects is that it is not enough for local

¹⁵ Based on presentations by Bibiana Vázquez, Judith Tendler, (Drabenstott Llisteri)

¹⁶ These projects followed four different types of streamlining: “one-stop shop”, multi-service center, online services, and outsourcing.

governments to simplify bureaucratic procedures, but they also have to offer business services based in a strategy for local development and territorial competitiveness. Another set of lessons learned relates to the scope of these projects. In order to have results that are significant, sustainable, and effective, bureaucratic streamlining should (i) apply to the entire population/business community, (ii) should be the only system in force (in other words, there should not be a co-existence of the new, reformed system with the old system) and, (iii) should always count on the support/participation of the central government (despite implemented locally) and have a national vision so that its results will not be strictly local and discrete.

The second area in which the public sector play a prominent role and in which there is space for collaboration with other actors is enforcement of regulation. Public agencies inspectors (being them labor, environment, or other public inspectors) are usually seen as corrupted or at best highly costly for firms. On the other side, businesses are perceived as doing the minimum to comply with regulation and they usually do not see the inspectors as potential partners. An ongoing research at MIT has found that this is not the case in many success stories of economic development in Brazil. This research studied 26 cases throughout Brazil, involving industrial clusters and not, but all involving sectors that had an important share of the total employment in the region and in some cases even a large portion of the total Brazilian production. In these cases, while economic development agencies did not play a key role, the regulatory agencies were there first and their action set a prior stage for the region development. The main *interim* findings of this research are the following: (i) when there was an improvement in the enforcement of the law by prosecutorial, environmental, labor and other regulatory agencies, in some case competitiveness was not undermined, but in some cases it was even enhanced; (ii) these inspectors used a “pedagogical” approach in enforcing the rules, as opposed to a merely repressive one, and inspectors set at the table with the business side to understand the technical reasons that did not let the firms comply with the rules and seek out solutions without increasing costs and jeopardizing competitiveness; (iii) in some cases, the conflict, and its mediation, between the two sides (inspectors and business) was central in order to reach the positive outcomes (although, formal “conflict mediation” was rarely used); (iv) inspectors had a long process of engagement with the firms and often generated the support and involvement of the technical agencies to solve the problem; this created a sort of a community of learning in the region, a community that started with a task (solve a problem) and then became topic-oriented, that also helped spreading the standards; and (v) sometimes dedicated civil servants were linked together by a sense of collective professional identity for the protection of poorer or less-protected citizens, whose legal rights were being violated, especially by spreading out and sustaining some of the improvements found in one case/territory. Overall, this research showed an unexpected role of the regulatory agencies for local economic development, and illustrated that the often perceived trade-off between an improved business climate and enforcement of labor, environmental and other regulatory laws was overcome through collaboration between the business and the regulation side.

4.3 Social inclusion and poverty alleviation¹⁷

Understanding the pro-poor consequences of cluster programs and their potential contribution for social inclusion is particularly important in a region like LAC, where excluded groups are sometimes the majority in many countries. In the region, more than 30% of the entire population is afro-descendants, 10% indigenous people (majority in Peru, Bolivia, and Guatemala), 10% are handicapped and many are HIV/AIDS affected. In addition, there is a high percentage of poor women. Moreover, despite women's important presence in the local economy, they face severe challenges: 1) many jobs occupied by women tend to be less secure, with low salary, part time; 2) they often are in the informal economy; and 3) even when women occupy the same jobs as men, they receive lower salaries, both in the formal and informal sector. Finally, they are often micro-entrepreneurs, in economic activities with low barriers to entry, which creates a context of fragility, with a likelihood of market saturation and low incomes.

However, the cluster literature has historically tended to focus on issues relating to the competitiveness of firms, especially small and medium enterprises (SMEs), based on the economic advantages that clustering could engender, and the ways in which local institutions and local governance can add to these advantages through joint action.¹⁸ What is often neglected by researchers and policymakers is the fact that in many cases small firm clusters cater to, or provide employment for, the poor. Broadly speaking, people concerned with cluster development are usually concerned with things such as growth and competitiveness, collective efficiency, local institutions, social capital, global buyers, and, more recently, the ties between local clusters and global value chains. On the other hand, people concerned with poverty reduction are generally concerned with income, employment, vulnerability, risk, participation, empowerment, social protection, and social provisioning. In other words, there is a theoretical dichotomy between these two sets of framework. In order to bridge them, there are some important questions that need to be answered, such as whether clustering raise employment for the poor, reduce vulnerability and risk for firms *and* labor, promote compliance with labor, social, environmental standards and CSR, and whether cluster upgrading has positive outcomes for the poor.

Much research still needs to be done to answer these questions, but the evidence of various cluster experiences suggests some initial conclusions. Industrial clusters can have a direct effect on poverty—generating employment, income and well-being for workers within the cluster. Industrial clusters enhance the ability of small firms to compete in global markets, while at the same time promoting sustainable employment and incomes and, therefore, improving the situation for the working poor. This effect on poverty reduction is explained because SMEs (that are a significant component of clusters) account for a large proportion of manufacturing employment in developing countries, and they are predominant in labor-intensive sectors where mostly working poor are employed. At the same time, it is important to recognize that the gains from

¹⁷ Based on presentations by Khalid Nadvi, Judith Tandler, Jacqueline Mazza, Francisco Albuquerque.

¹⁸ This discussion on clusters has recently recognized that competitiveness does not depend only on internal linkages within a cluster, but also on linkages with actors external to clusters, in particular with global value chains (GVC) into which clustered firms may be inserted.

clustering can be unevenly distributed. Certain types of clusters can have more direct impact on poverty.¹⁹ Moreover, cluster growth produces winners and losers among firms and workers—particular categories of workers, especially women and unskilled workers, can lose out as clusters upgrade. For a poverty reduction agenda, it is critical to note which types of firms, and workers, gain over time, and which lose out, and pay close attention to the latter when supporting clusters for technological, market or product upgrade.

Although many cluster development initiatives address such concerns by targeting their activities to poorer or marginalized groups, most cluster development programs do not explicitly factor poverty concerns into their goals. Thus, the challenge in making cluster development more pro-poor involves:

- Poverty targeting: identifying poverty groups and paying attention to their needs.
- Focusing cluster gains to the poor: identifying key agglomeration benefits for the poor and fostering cooperative strategies.
- Recognizing cluster differences: identifying winners and losers and ensuring that marginal groups of workers and producers are not weakened.
- Promoting social protection: using formal and informal interventions to strengthen social provisioning around poverty concerns (e.g. health and occupational hazards).
- Emphasizing labor standards and improved work practices as a pro-poor endeavor within corporate social responsibility:
 - Improving *work organization*: raising productivity *and* empowering labor
 - Promoting *labor* standards: ethical sourcing as a territorial advantage
- Detecting *artisan craft* niches: using geographical indication as territorial advantage.

In addition, more social inclusion calls on a change not only in policy outputs, but also in the “inputs”, in *how* excluded groups can participate in society and be part of the policy making process. This requires much attention in the design of regional/local development projects, that should include (i) community participation in the design, execution and evaluation of the project, (ii) attention to barriers to access and participation of excluded groups (especially to buy land, access to credit, and physical access for people with physical disabilities), and (iii) involvement of a series of institutions and services that are linked to marginalized groups. Finally, including poverty reduction goals into industrial cluster projects implies to bring the labor dimension back in. Projects should not only implement a policy for the local productive system, but also for the local labor market to create a territorial system of training for human resources according to the productive profile of each locality. The evidence suggests that guaranteeing inclusion and participation of vulnerable groups into the strategies for local economic development and employment is the best way to balance economic development and social equity.

¹⁹ These include some rural clusters and, in the urban informal economy, clusters with a preponderance of SMEs, micro-enterprises and homeworkers, clusters in labor-intensive sectors and clusters that employ marginalized and poorer groups of workers, such as women, minority groups, migrants and unskilled labor.

V. Next steps²⁰

Building on the experience and lessons learned with the cluster of Projects of Production Integration (PIP) and with UNIDO's projects, and to respond to a growing demand in the region for projects that support regionally based productive development initiatives, the MIF is launching a new cluster of projects that focus on *local competitiveness*. The initiative also responds to the MIF II mandate aimed at “developing innovative business and entrepreneurial models or networks that contribute to the process of development; engaging the public and private sectors in collaborative endeavors; advancing socially responsible approaches to doing business”.

The goal of the projects in this cluster is to increase the developmental potential of SMEs in a given region by strengthening the competitive factors (*territorial assets*) of the locality, and, consequently, to improve the developmental potential of the region itself. For the purpose of these projects, ***territory or locality*** is defined as a delimited *economic region* with similar or shared productive characteristics—economic base, interdependent productive sectors, skilled labor pool, economic infrastructure, and other comparative advantages. In some cases, a target territory may not coincide with individual municipal or regional government jurisdictions. Each project will be organized around one or two strategically important sectors or supply chains of the regional economy. Particular attention will also be paid to the structure of governance for these projects. Typical components and activities of these projects are:

1. Strengthening the local productive development network of private and public stakeholders

Projects in this cluster will promote and implement a broad range of activities that build and strengthen the public-private network and institutional framework, which together promote productive development in a given territory. In general, they consist of institutional and human resource development actions as well as methodologies and other tools—grouped into two broad lines: (i) networking and collective action among enterprises and other stakeholders; and (ii) development of social capital assets in the region.

2. Business development initiatives in strategic sectors or clusters of the territory

This component includes activities that more directly support organizational strengthening of businesses, product development, and improvement of production processes, through joint private-private actions between firms with similar interests. This component is also expected to promote initiatives considered important for the competitive development of strategic sectors and productive chains in a given territory. Funding for specific activities will be made available according to the following criteria: (i) the initiative should be collectively designed and submitted by at least three entities, including business enterprises and knowledge institutions; (ii) preference will be given to proposals that are innovative for the region or locality; and (iii) the initiative should be environmentally sustainable and comply with domestic standards and regulations.

3. Matching grant facilities for joint private-public initiatives in territorial competitiveness

This component will encourage joint venture initiatives between private and public sector

²⁰ Based on presentation by Claudio Cortellese and Robert Daughters.

stakeholders aimed at improving a region's competitive position in the larger national and international markets. It is one of the central activity areas of the program and involves: directly enhancing the capacity for public-private cooperation, strengthening a region's pool of social capital, and generating a greater appreciation for the benefits that can be gained from collective action.

4. Development of lessons learned

The purpose of this component is to implement a system to monitor and evaluate results, and to systematize lessons learned so that the program can be up-scaled or replicated to be consistent with the new MIF Mandate. Some activities that should be included are: (i) determination of a baseline and implementation and maintenance of a monitoring system; (ii) local events and seminars for dissemination and knowledge sharing; (iii) participation in outside events; and (iv) systematization, validation, and dissemination of the experience.

Annex I. What Do we Know about Clusters?

With the widespread use of A new system of production, based on “flexible specialization” (Piore and Sabel, 1987) followed the fordist mass production systems that prevailed in the period following World Word II. This new system brought drastic changes in the organization of production: a shift from standardized production to production that is flexible in order to offer small batches of products that are different in their design and/or in the materials used, and a shift from a system of production that is vertically integrated to a practice of sub-contracting some phases to outside, small firms (to reduce costs and increase competitiveness through a diversified offer of products). This flexible system of production not only has influenced the work organization of large firms (that now work with a network of small sub-contractors), but it has also resumed a form of work organization that had been forgotten for some time (but had persisted in Italian industrial districts).

The industrial district is “a socio-territorial entity, characterized by the active coexistence of a community of people and of a population of industrial enterprises in a naturally and historically defined delimited geographical area. In the district... community and firms tend to mutually intertwine” (Becattini, 2000, p.58-59, own translation).²¹ This form of organization usually results from a “progressive and relatively localized division of the core productive activities of the district and of those that are complementary and instrumental to it” (Bellandi -Sforzi, 2001, p.43, own translation).²² The industrial district is thus characterized by the presence of small firms specialized in one phase of the production that compete with other firms within the same phase, but collaborate with the firms operating in other phases of the production chain to produce the final good. Therefore, the emphasis on the territory not only has a geographic meaning, but it also refers to the locality where multiple economic and social transformations took place. The territory then becomes a space with shared knowledge, where the actors (both public and private) have learned to value their competences and those of their locality. The organization of the industrial district fits very well into the flexible production and international competition because the existence of many small firms, specialized in different phases of the production chain, allows for a variety of combinations of firms, which together are able to offer differentiated products. The integration of *contextual* (local) knowledge and *codified* (external) knowledge makes product and process innovation possible, and as a result, significant participation in the global market.

Similar to the concept of industrial district, Michael Porter defines an *industrial cluster* as “a geographically proximate group of inter-connected companies and associated institutions in a particular field, linked by commonalities and complementarities” (2000: 254).²³ This geographical agglomeration can potentially help small firms overcome limitations associated with size, promote technological development, and enhance their

²¹ Becattini, G., *Il distretto industriale*, Rosenberg&Sellier, 2000.

²² Bellandi, M. and Sforzi, F., “La molteplicità dei sentieri di sviluppo locale”, in Becattini, G., Bellandi, M., Dei Ottati, G., Sforzi, F. (a cura di) *Il caleidoscopio dello sviluppo locale. Trasformazioni economiche nell'Italia Contemporanea*, Rosenberg&Sellier. Torino, 2001.

²³ Porter, M. E., “Location, Clusters and Company Strategy”, in Clark, G. L., Feldman, M. P., and Gertler, M. S., (eds.), *The Oxford Handbook of Economic Geography*, Oxford University Press, Oxford, 2000.

ability to compete in local and global markets. The prospect of these gains has fostered a growing academic literature on clusters, that has demonstrated that they are particularly relevant to developing countries (Nadvi and Schmitz, 1999).²⁴ This emphasis on clusters motivates significant policy initiatives within industrial development strategies. Scholarly research has shown that industrial clusters are common in a wide range of developing countries and sectors, and has shown that clustering has helped small enterprises to overcome growth constraints to compete in distant markets, nationally and abroad. Specifically, SMEs operating in such clusters gain a competitive advantage from: the proximity to sources of raw inputs, the availability of customized business development services, the abundance of clients attracted by the cluster tradition in that industry, and the presence of a skilled labor force. Geographical proximity also creates possibilities for local cooperation, between firms and through local institutions. In addition, clusters are also said to be characterized by a strong sense of common social identity, often based on shared norms or common notions of community that lie in ethnic, religious, regional or cultural identities. Consequently, this can strengthen “social capital” that reinforces cluster ties and fosters trust between local actors. These findings have some important policy implications. First, successful clusters cannot be created from scratch, but outside assistance can have some impact when there is a critical mass of enterprises and skills that can be strengthened. Second, to be effective, interventions need to be customer-oriented, collective, and cumulative. Finally, a deep understanding of cluster dynamics has shown that private joint action alone is insufficient, and that public agencies can play an important role as catalysts or mediators.

²⁴ Nadvi, K. and Schmitz, H., “Clustering and Industrialization: Special Issue”, *World Development*, vol. 27, no. 9, 1999.

Annex II. IDB Indicators for monitoring and evaluation of cluster projects²⁵

- In the long run, three years after the end of the project, impact results can be measured through: increase of local GDP, which should be higher than the increase in the national GDP; increase in the productivity/sales/exports on average of the cluster compared to its baseline and/or a control group; increase in sales/productivity/employment of the firms that were direct beneficiary of the program.
- At the end of the program, it is possible to measure intermediate results (medium run) through increase in the percentage of firms in the cluster that follow competitive strategies (in terms of quality, management, eco-efficiency, marketing, among others); increase in the cooperation among institutions (increase in the number of non-firm actors involved in activities for improving cluster competitiveness); increase in the cooperation among firms (increase in the number of activities for improving competitiveness that involve more than three firms); share of firms participating to the program that show an improvement in their competitive position.
- In the short run, that is, during the implementation of the project, monitoring is directed to assess whether an institutional arrangement is created to ensure the interaction of all involved actors, whether strategic plans are designed and approved with the consensus of all stakeholders, the number of firms that participate to the project activities (also measured as a percentage of cluster firms), and the total of subsidies disbursed for competitiveness improvement.

²⁵ Based on the presentation by Gabriel Casaburi.