

MODULE 1 Cluster Selection



The first stage of the UNIDO cluster development approach is the selection of the cluster or clusters to work with. A well-designed and executed selection process is a precondition for a successful initiative. It permits the identification of clusters where the impact of the intervention can be maximized given available time and resources.

The key adjectives that can be used to describe a well-designed cluster selection process are **shared** and **grounded**.

- **Shared** implies that the selection is the result of a participatory process involving relevant national and regional actors, such as ministries of industry and economy, chambers of commerce, business associations and trade unions, development agencies and so on.
- **Grounded** means that the decision-making process is based upon clear and agreed criteria.

A selection process that follows these principles delivers several benefits. First, it guarantees that the choice of cluster(s) will be informed rather than arbitrary. Second, it creates awareness among local counterparts of the strengths and weaknesses of the clusters being assessed and increases their commitment to the initiative. Third, it helps avoid undue external pressures being exerted – that may result in a biased selection of cluster– and guarantees the continuity of project activities even in the face of a change of priorities on the part of one or more of the counterparts.

This module distinguishes between two sets of criteria in the selection process. The *Identification criteria* for the mapping of existing clusters in a country or region, and the *prioritization criteria* for singling out one or more clusters on which the initiative will focus.

1. Identifying clusters

The first step on the path to cluster selection is the identification of existing clusters. In countries where clusters are well known, identification may be made easier by the existence of databases. Where this is not the case, fresh information will need to be collected. To identify clusters the implementing agency will look for:

- the presence of a number of related enterprises in a given locality;
- their geographical spread – that is, their spatial proximity to each other; and
- the presence of support institutions (BDS providers, business associations, banks and training institutes).



Generally, the selection process relies heavily on qualitative information, since this can be relatively easily gathered. A good starting point is interviews and focus group discussions with national and regional representatives who can usually provide accurate information on which clusters exist and where they are located. Additional sources of qualitative information include staff of development organizations, SME support institutions and counterpart organisations. Policy documents, reports and economic plans can also provide useful information. The type of information being sought at this stage includes the nature of leadership and cooperation within the cluster(s), their internal structure, major growth opportunities and constraints and recent performance and evolution.

Sources of quantitative information may also be consulted. These could include national industrial statistics and population census data, which can provide valuable information on industry based employment and output broken down by province or region. Both figures are commonly used as proxies for the presence of industrial agglomerations.

Other possible sources of quantitative information include business associations, organisations holding databases with data on economic regions (e.g. Mercosur for South America); multilateral development organisations and academic sources.

This screening exercise will generate a preliminary list of existing clusters in a country or region. They can be presented in a table that includes their main basic characteristics (location, industry, size, etc.) and can also be plotted on a map showing their geographical distribution and concentration (e.g. Fig. 1). This list will then be analysed on the basis of prioritization criteria (discussed below) to make a final selection.

2. Selecting clusters

Selection of clusters is generally necessary to:

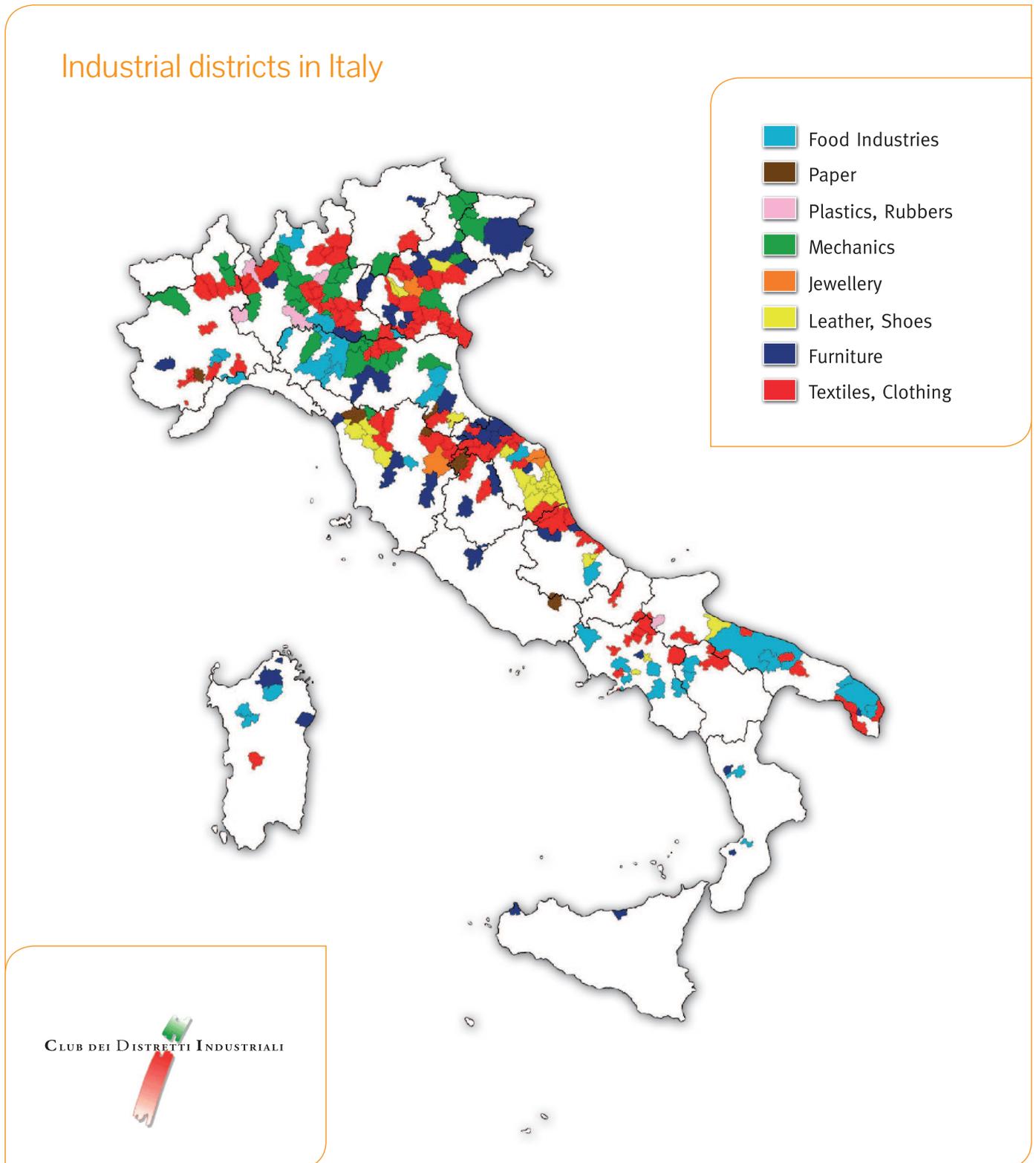
- avoid dispersing efforts and to concentrate on the clusters that have the potential to achieve the greatest results in the available time frame.
- focus on the clusters whose growth can contribute most to the achievement of a set development objective
- be aware of risks as well as benefits related to the selection of one cluster over others.

Private sector based pro poor-growth is an overriding principle of UNIDO approach to cluster development. There are multiple mechanisms by which private sector development can benefit the poor, including employment generation, increased returns driven by productivity enhancements and availability of goods that are more affordable to poor consumers.

Cluster initiatives need, therefore, to make a series of informed choices with respect to: i) which categories of stakeholders are expected to benefit; ii) what pro-poor benefits are anticipated (e.g. employment generation, cheaper consumer goods, etc); and iii) when are benefits expected to materialize - in the short term (immediate access to economic opportunities) or in the longer term (increased competitiveness).

Given the limited nature of resources that are likely to be available, attempting to meet all objectives at once can lead a cluster initiative into a dead end. Moreover, the relatively weak endowment of the poor in terms of assets, skills and capabilities means that trade-offs are likely to arise between the pace of economic growth and the inclusion of poor stakeholders.

Fig.1: Example of a clusters map – Industrial districts in Italy





Thus, implementing agencies need to raise awareness and promote discussion among relevant stakeholders (including national and/or regional governments, the local municipality, development agencies and so on) on the preferred strategy to achieve the pro-poor objectives that are agreed upon. The stakeholders are then encouraged to apply the prioritization criteria described next to ensure that the expected benefits of the cluster initiative are maximized.

3. Selection criteria

The potential of a cluster to promote pro-poor growth is the most important prioritization criteria when selecting clusters for development initiatives but not the only one. Assessing the feasibility of the intervention and assessing the potential for replication and diffusion are also important factors when establishing priorities and selecting clusters.

3.1. Expected impact on pro-poor growth

The likely impact of a cluster development initiative on pro-poor growth depends on four categories of variables: i) the features of the production system; ii) the linkages; iii) the support system and iv) the framework conditions in the cluster.

I. Features of the production system relevant to pro-poor growth include:

- the location and size of the cluster;
- the size of enterprises; and their patterns of competition and cooperation;
- the characteristics of the value chain, including value chain governance
- the technology level and capacity to innovate;
- the goods and services produced and how they are marketed;
- the poor as percentage of the cluster population; and
- the environmental context.

The expected influence of each of these features is discussed in detail in Box 1.



Box 1: The features of the production system and the pro-poor impact of cluster development initiatives – Some considerations (I)

Cluster location. This is an important variable when establish priorities. Intervening in a location which is difficult to reach can limit the capacity of project staff to travel to the cluster and provide assistance and may also result in high costs. The choice to operate in a conflict area needs to be considered carefully. On the one hand, cluster development here may produce a considerable pro-poor impact. On the other, it may well imply greater risks and higher costs, which may seriously undermine the potential for success of the initiative. Proximity to other clusters, especially if these are in similar or complementary sectors, may generate significant ripple benefits and facilitate the replication of models and technologies developed.

Size of the cluster. In general terms, larger clusters have greater potential to generate collective efficiency gains and ripple benefits for related industries. However, the trade-off between the size of a cluster and coordination costs needs to be considered. A large cluster is not necessarily preferable to a smaller one, since intervention in the former is likely to entail higher coordination costs.

Size of enterprises. The presence of large enterprises in the cluster generally counts as a plus in the process of selection, since they are often dynamic players in the local economy. Skills, knowledge and technological know-how may also ripple or be transferred from large to smaller scale enterprises. Furthermore, the presence of large foreign-owned firms can be taken as an indicator of the attractiveness of the cluster to international interests. Broadly speaking, the higher the number of SMEs involved in any cluster development initiative, the greater is likely to be its pro-poor impact. Yet, the risk of excessive enterprise fragmentation needs to be taken into consideration. Too many small and micro enterprises with limited growth potential do not necessarily translate into positive outcomes for the poor.

The poor as a percentage of the cluster population. Besides looking at the number of SMEs in the cluster, pro-poor initiatives must also consider what share the poor constitute of the total cluster population. The poor may be involved as self-employed entrepreneurs, employees and suppliers of inputs and services. Consideration also needs to be given to how marginalized or vulnerable groups (such as women, scheduled castes and minorities) are involved at all stages of the production processes within the cluster. Initiatives that are strongly driven by poverty reduction concerns and by the need to generate short-term gains for the poor generally focus on clusters where the poor constitute a large majority of the stakeholders and in which there is little or no discrimination against their participation.



Box 1: The features of the production system and the pro-poor impact of cluster development initiatives – Some considerations (II)

...The poor as a percentage of the cluster population (cont). Clusters with a large share of poor population and little discrimination are often rural, informal, and operating in traditional sectors such as handicrafts, hand-weaving and traditional food production. The decision to prioritise such clusters convey to risk. One is that they are likely to require the deployment of greater resources over a longer timeframe. The other one is that in this cluster it may be particularly difficult to achieve sustained growth and deliver long lasting poverty reduction benefits, especially where there is strong national and international competition.

Patterns of inter-enterprise competition and cooperation. Competition among cluster enterprises can be a strong driver of enterprise growth. However, this is not always the case. Price-based competition could undermine the cluster's pro-poor growth potential since enterprises that compete mostly on the basis of price – as opposed to those competing on the basis of quality - are unlikely to invest in innovation. Low prices usually translate into cost-cutting practices that may be biased against the poor.

When prioritizing clusters it is also of interest to search for evidence s of cooperation among enterprises and other stakeholders. Cooperation will facilitate achieving collective efficiency gains. The existence of formal or informal business networks or forums where cluster stakeholders meet and talk can be signals of cooperation. Before the intervention cooperation tends to be rare but evidences of seeds of cooperation indicate that a cluster development initiative is likely to be well received

Skill levels and gaps. The availability of appropriate skills is a major determinant of the potential for innovation and growth in a cluster. Whether the average workforce is skilled or unskilled, highly specialized, trained in vocational schools or rather endowed with traditional skills will affect how the initiative influences the cluster's performance. While a high level of skills is likely to allow a swifter and less resource intensive upgrading of the clusters, the impact upon pro-poor growth may be larger in initiatives focusing on upgrading a cluster from a low-skills base.

The **goods and services produced and how they are marketed**, affect the growth potential of a cluster. In general terms, clusters that are achieving rising sales to growing markets as a result of quality enhancement have strong growth potential. Conversely, clusters serving shrinking markets and where competition is on the basis of price are more likely to struggle to achieve sustainable development.



II. Linkages, both back and forward, between enterprises and other actors inside and outside the cluster affect the potential of a cluster development initiative to contribute to pro-poor growth. More and more stable linkages within the cluster are likely to increase the potential pro-poor growth impact of an initiative. When prioritizing clusters it may be therefore useful to search for evidence of stable relationships between buyers and suppliers in the **value chain** and also to examine the nature of those relationships.

The existence of relational linkages (those which are not reinforced by a formal contract) may be an indicator of a high level of trust between buyer and seller. This type of linkage is likely to be stable over time and to allow a greater flow of information and assistance to the benefit of cluster producers than contractual linkages.

It is also important to explore the linkages in the value chains in which enterprises in the clusters are embedded. This may involve assessing the nature and dynamics of the relationships between cluster enterprises and enterprises and/or institutions that, although not in the cluster, affect their performance (e.g. the relationship between cluster enterprises and providers of inputs located outside the cluster).

III. Support systems, especially the availability of training and educational support for the cluster. While an in-depth analysis will be carried out in the diagnostic study, at this stage it is necessary to ask whether a training system exists that can be relied upon to improve the cluster's skill base. Thus, cluster selection process needs to explore the existence of vocational schools and universities and the presence of ad hoc training programmes.

Where a cluster initiative is specifically oriented towards promoting innovative clusters, the selection process entails a stronger focus on the existence of additional components of the support system, such as research laboratories, patent offices, sector-specific training institutes and so on.

In addition, the implementing agency may explore the presence of other support institutions and service providers such as banks, local government, business associations and NGOs and the extent to which they are active in providing services to and lobbying on behalf of cluster stakeholders.

IV. Framework conditions refer to a set of external conditions over which cluster initiatives generally have little influence but which may constrain or facilitate cluster development.

The first is infrastructure; the availability and quality of electricity and water supply and of roads and transport facilities have a strong impact on the capacity of the cluster to increase production and access markets. Second, the policy environment; the existence of policies and incentives for private sector development together with investment promotion policies will favourably impact on the success of the initiative. Both of these need to be explored.

In conclusion, there is no hard and fast rule on which combination of criteria are to be used to identify the clusters where the implementing agency can expect to have the greatest results. In the end, the core task is to ensure that the criteria are combined and weighted to best align with the specific development objective set for the cluster.

Box 2: Clusters are embedded in Value Chains

Enterprises and their networks rarely stand alone as isolated entities managing the entire production process. They tend rather to be actors within a value chain (Fig 2).

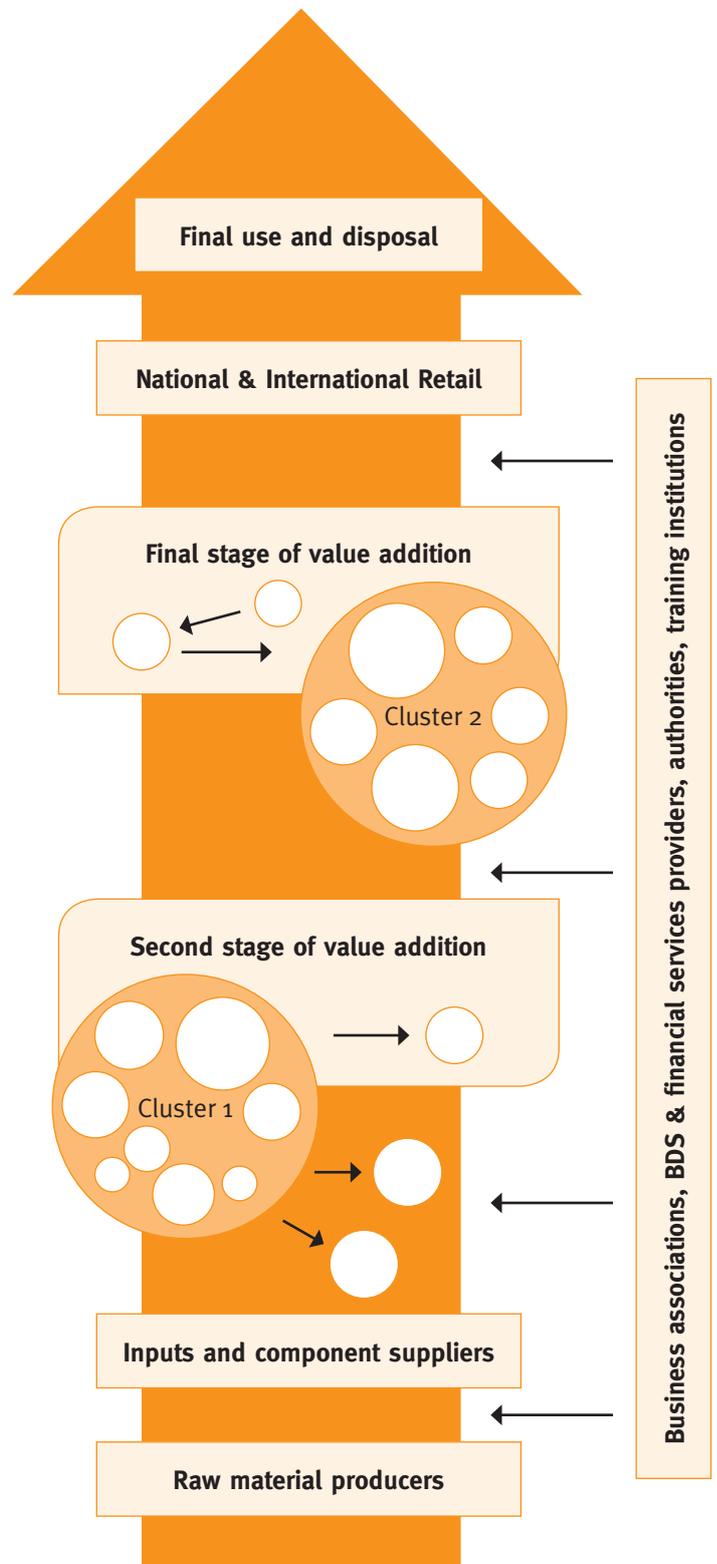
Value chains usually reach beyond the cluster boundaries, in that one or more stages of the value addition process happen outside of the cluster

This is the case, for example, with enterprises sourcing their inputs from external suppliers or servicing external national or international markets.

Cluster enterprises need to be fully aware of their linkages to actors outside of the cluster so as to avoid becoming excessively inward-looking and losing sight of all the market opportunities that potentially exist.

External linkages can be a valuable source of learning within the cluster as well as improve access to high-value markets

Fig. 2: Clusters in Value chains





3.2. Intervention feasibility

The expected impact on pro-poor growth is the main criterion used in the prioritisation of clusters but not the only one. Another important criterion to establish priorities is the feasibility of the intervention. For the success of a cluster development initiative it is fundamental to examine whether the most important preconditions for a cluster development initiative to perform well are given or not. These conditions include:

- **Local leadership and commitment.** This refers to the involvement and empowerment of local stakeholders. The presence of local leadership is important at all stages of the intervention. At the beginning, it facilitates launching the initiative; enabling, for example, the establishment of a group of private and public stakeholders to promote the approach among other cluster actors. During implementation, it enables the mobilization of resources and the transfer of responsibility to local actors. Later on, towards the end of the initiative, local leadership promotes sustainability and continuity.
- **Cost of the initiative.** The analysis of opportunities and constraints undertaken as part of this analysis will give an idea of the different types of support required by the cluster. On this basis a rough cost estimate can be made and compared with the resources available. As a rule of thumb, a modest but successful intervention is preferable to an over-ambitious one that cannot be completed due to the high investment required over the available resources. When the cluster is recipient of other forms of development assistance, it is necessary to assess whether these resources would complement and reinforce or replicate those proposed for the cluster initiative. Overcrowding of and competition between different sources of assistance should generally be avoided.
- **Policy complementarities.** A cluster development initiative is ideally an integral part of a wider national or regional development programme. Even when it is not officially a planned intervention within a broader socioeconomic development plan, it is important to ensure that the initiative fits and contributes to the overall national and/or regional development goals. The fit or expected contribution to overall development goals is thus an important criterion to be taken into account when attempting to establish priorities among possible cluster development initiatives.

3.3. Potential for replication and diffusion of benefits

This set of variables refers to how likely it is that the intervention will generate benefits beyond both the geographical and the economic boundaries of the cluster where the original initiative is implemented. The aim is to attempt to identify potential benefits for other industries and locations at three levels:

- **Ripple benefits.** These refer to benefits accruing to supporting and related industries within or near the cluster. These can accrue to sectors both upstream and downstream from the cluster's main value chain or to complementary actors in the production process. So, for instance, a cluster focused on the production of sofas, which includes furniture and textile components, can generate ripple benefits for economic actors in both industries. The potential for such effects must be taken into account in cluster selection since this will increase the diffusion potential of the intervention and thereby potentially benefit a greater number of entrepreneurs and poor people.
- **Extra-regional effects.** These are a form of ripple benefits that go beyond the cluster's geographical boundaries. These may be ripples of the type described in the previous paragraph, but taking place outside the cluster. Alternatively, the cluster initiative may promote the development of business support models or services that subsequently become available to other industries in other locations (e.g. training programmes, logistical services, production processes, technologies etc.).
- **Potential for replication.** Cluster initiatives often start with pilot activities in one or a limited number of clusters but with the ultimate aim of scaling up. Thus, the extent to which lessons learned from the project are likely to be applicable in other contexts needs to be explored. This is especially true: i) if there are other nearby clusters that share similar social and economic conditions; ii) there are other clusters elsewhere in the country in the same sector as the cluster being considered; or iii) if the cluster is particularly well-known in the country. It is also important to explore the level of interest and commitment shown by national policy makers since this is likely to have a major impact on the chances of wider replication.