ISBN 978-92-64-03182-1
OECD Reviews of Regional Innovation
Competitive Regional Clusters
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PART I

Chapter 3

How Do Programmes Pick Participants?

This chapter discusses the important steps in policy design for selecting programme participants. First it explores the policy targets since that choice needs to map to the underlying problem the policy seeks to solve. It then reviews the different methods of identifying the potential targets, which may be quantitative or qualitative or a combination of the two. Finally, it analyses the different selection mechanisms used by the programmes and the appropriateness of those methods relative to the policy's goals and targets.

Introduction and key points

The economic rationale for government intervention underlies the different choices regarding programme targets. Those targets may be places, sectors or specific actors or groups of actors. They could also be a combination of these different target categories. The targets then need to be clearly identified to ensure that the resources available for the programme are adequate and that goals are achievable. The choice of selection mechanisms is a key first step and needs to be consistent with the objectives. This chapter will discuss the following themes:

- *Policy targets: what is the real problem?* There is a fundamental choice to be made between targeting leading regions, lagging regions or including all regions. The case studies include programmes focusing on the most advanced regions, others that target lagging regions (often supported by EU Structural Funds) and yet others that include all regions as potential participants. Another basic issue is the choice between dynamic *versus* exposed sectors or simply opening the programme to all sectors. Some programmes focus on only the most advanced sectors or those with specific characteristics (strategic sectors, high growth sectors, etc.). Others target sectors in difficulty or those most exposed to international competition. Some programmes may seek to focus on other sectors, such as those of strong social importance. Several countries have also experienced tension in whether to target small *versus* large firms, as they have different needs yet programmes may try to serve both.
- *Identification methods: analytic and strategic choices*. Countries identify potential programme recipients using three general approaches: 1) a statistical method, such as a mapping study; 2) through a lower level of government; or 3) through a process of self-selection, such as a call for proposals. The first method is particularly used when the goal is to support national economic drivers. In some instances, national programmes provide only a framework and rely on regions to identify target clusters within their jurisdictions. These different approaches can be further characterised as top-down, bottom-up or a combination of the two.
- *Selection mechanisms: matching programme goals with targets*. The selection mechanisms used include both competitive and non-competitive procedures. Competitive strategies are used to identify the strongest projects within a given target group and to measure the motivation of key actors, notably the private sector. The credibility of the selection mechanism and the number of selected participants has an important impact on the "labelling" effect that many programmes seek.

Table 3.1. **Targets and selection mechanisms of case study countries**

	Programme/ policy	Primary performance goal	Target regions	Target sectors	Selection mechanism	Competitive?	Selected (applied)
Canada	NRC Technology Cluster Initiatives	National	All regions	Technologies in high-technology and other industries	Dialogue	No	n.a.
Czech Republic	Klastry	National (excluding Prague)	Lagging regions (all regions except Prague)	All, many restructuring	Self-selection via application, some groups encouraged to participate	Rolling applications til all funds used	All qualified applicants selected
Finland	Centres of Expertise	Regional	Regional urban centres (initially major cities)	Leading (potential for innovation, even if not high technology)	Self-selection via application	Yes	22 (n.a.)
	National Cluster programme	National	No regional focus	Largest sectors in the economy	Mapping results and relation to sectoral ministries	No	n.a.
France	*Pôles de compétitivité*	National ("inter-national" clusters); regional ("regional" clusters)	Leading ("international" clusters); all regions ("regional" clusters)	Leading sectors ("international" clusters); all sectors ("regional" clusters)	Self-selection via application	Yes; multiple tiers	67 (105)
	Local Production Systems (SPL)	Regional	All regions (often not leading)	All sectors grouped in industrial districts, for SMEs	Self-selection via application	Yes	n.a.
Germany	BioRegio	National	Leading	Biotech	Self-selection via application with support by *Länder*	Yes	4 (17) received most of the funding
	InnoRegio	Regional	Lagging (Eastern *Länder*)	Sectors with growth potential	Self-selection via application	Yes	25 (400)
	GA-network initiative (Joint Task)	Joint national-regional	Lagging *Länder*	All	Identified by the *Länder* in the context of a larger regional development strategy	No	n.a.

Table 3.1. **Targets and selection mechanisms of case study countries** *(cont.)*

	Programme/ policy	Primary performance goal	Target regions	Target sectors	Selection mechanism	Competitive?	Selected (applied)
Italy	Law 317(91)	Regional	All	Regional level decision	Statistical mapping	No	n.a.
	Technological Districts	National	All regions (includes additional component for southern Italy)	Strategic fields in national S&T policy	Strategic mapping	No	11
Japan	MEXT Knowledge Clusters	National	Leading university areas	High technology	Identified by Ministry in consultation with universities	No	18
	METI Industrial Clusters	National	All regions (explicitly recognises needs of different region types)	Leading	Regional METI officers identified promising cluster projects for consideration	No	19
Korea	Innovative Cluster Cities	Regional	All regions (outside of Seoul); based on existing industrial complex infrastructure	National strategic industries	Strategic selection criteria	No	7 (selection for pilot, should be extended to all 30+ complexes)
Netherlands	Peaks in the Delta	Regional	Regions driving national economic growth	Largest sectors in regional economy of national significance	Analysis by Regional Programme Commission	No	n.a.
	Key Innovation Areas	National	No explicit regional focus but regional implications	Leading (innovation and growth potential)	Analysis by Innovation Platform Council	No	n.a.
Norway	Arena Programme	Regional	All regions	All (sector neutral)	Self-selection via application and dialogue	No	n.a.
	Centres of Expertise (NCE)	National/ regional	All regions	All (sector neutral but R&D important)	Self-selection via application	Yes	n.a.
Spain, Basque Country	Competitive-ness clusters	Region-wide	All sub-regions	Important sectors in the economy; many restructuring	After mapping and public/ private dialogue, industries could apply; after initial selection, clusters petition government	No	Eligible and willing candidates accepted

Table 3.1. **Targets and selection mechanisms of case study countries** *(cont.)*

	Programme/ policy	Primary performance goal	Target regions	Target sectors	Selection mechanism	Competitive?	Selected (applied)
Sweden	VINNVÄXT	National	Leading	Leading (high growth)	Self selection	Yes	Round 1: 3 full and 7 partial recipients (25 selected out of 150 for planning grant) Round 2:5 (23)
	Visanu	Regional	All	Priority in regional development plan	Already identified in regional growth plan; selection by dialogue	No	30 (process support recipients)
	Regional Cluster programme	Regional	All	Priority in regional development plan	Already identified in regional growth plan; selection by dialogue	No	Round 1: 3 selected for projects, 7 for 1-year basic support
United Kingdom	DTI/RDA/DA	National	All	Priority clusters defined by region in regional economic strategy	Regions organise mapping studies or similar (guidelines and support provided by DTI)	No	n.a.
United States, State of Georgia	Georgia Research Alliance	State-wide	All sub-regions containing partner university	High technology	Non-profit or industry/ university professionals select projects with greatest potential positive impact for state	Yes, but rolling	Project by project basis
United States, State of Oregon	Oregon Cluster Industries	State-wide	All sub-regions	Largest sectors in the economy, potential for job growth	Identified via mapping study	No	n.a.
	Oregon Cluster Network	State-wide	All sub-regions	All	Self-selected to become member	No	All accepted

Policy targets: what is the real problem?

The nature of the target is determined by the policy objectives and the geographic scale at which those objectives are to be achieved. The places, sectors and actors to be served by the programme, as illustrated in Figure 3.1, can have very different sets of needs. The targeting may be an explicit choice or a *de facto* choice based on the programme structure and instruments. In

Figure 3.1. **Types of policy targets**

fact, there are examples of programmes that end up serving different types of actors across region types, as revealed in evaluations of programmes in Finland and Japan, and the participation rates by different types of actors in the numerous programmes.

A clear definition of the problem to be solved serves to define the programme targets. Goals such as improving growth are not specific enough to understand the real problem. Raising levels of GDP per capita can be achieved by targeting high value added sectors but this does not necessarily create a large number of jobs. Consequently, there are a number of tensions inherent to choosing among the range of possible targets.

Leading versus. lagging regions. Programmes that have a primary objective of increasing national economic growth will usually focus on the most prominent drivers, which are leading regions and/or sectors. These prominent targets either have the greatest potential to contribute to economic growth given their weight in the economy as measured by jobs or output, or by their potential for higher rates of productivity gain. This emphasis on motor regions or industries can also serve to increase regional disparities by concentrating growth in specific areas of the country. The original structure of the *Pôles de compétitivité* programme in France assumed that national competitiveness requires some focusing of resources in key areas with spillovers from growth poles to other regions. Critics argued that the programme should, on the contrary, aim to promote growth directly in the other regions and that resources should be divided accordingly. However, allocating resources across too many clusters risks diluting the programme impact. The debate about how the programme should be implemented brought out clearly these different perspectives. Only a few of the programmes in the case study countries seek specifically to support lagging regions to address issues of regional disparities and social cohesion. Most national programmes have used EU funding to target lagging regions and sectors.

Dynamic versus *exposed sectors*. Similarly, support for dynamic sectors is designed to increase the competitive edge of these industries in global markets, with benefits spilling over into the national economy. The problem is that identifying growth sectors involves predicting the future. This means that even identifying which are the leading sectors can be problematic. Moreover, providing resources for exposed sectors that must refocus to take advantage of new opportunities has a strong structural logic and often responds to concerns about unemployment. It also moves the programme's focus away from high-growth drivers.

Several programmes target restructuring (exposed) sectors, as opposed to lagging regions. These tend to be industries that are historically key sectors for the country concerned, often heavy industries such as steel or traditional manufacturing industries. In the Basque Country, Spain and the Czech Republic (all regions except Prague), for example, the programmes began primarily in response to a need to restructure key industries. The programmes have since evolved to other industries, including new growth sectors. In most programmes the distinction between targeting restructuring industries and lagging regions is quite blurred.

Other sector types. Cluster programmes may also target sectors for reasons other than strictly economic growth or job creation/retention. For example, Sweden's Visanu programme supported cross-sectoral clusters and the creative industry which also had the benefit of serving clusters with a stronger female labour force participation rate. These sectors supported were in addition to the clusters prioritised in regional growth programmes. One of the goals of the Italian Technological Districts is to support sectors associated with social goals such as environmental industries, safety and health. Another example of a cluster target for more social goals is the introduction by the West Midlands RDA of a clothing cluster initiative. Unlike some other UK regions, notably the northwest and Yorkshire, the textile industry is not traditionally strong in the region. However, the arrival of immigrants from Asia has promoted the development of a strong though relatively low-profile clothing manufacturing cluster. The aim of this initiative was to broaden the scope of the priority clusters to take account of new economic actors, immigrants.

Small versus *large firms*. Several countries have experienced tension in how to target both small and large firms in the same programme given their different capacities and needs. The involvement of large firms is appealing, particularly in cases where the objectives emphasise research intensive industries. The Italian Technological Districts, for example, were designed so as to draw in the most dynamic technology user firms in the region, as well as to leverage private sector investment coming mainly from large firms. Supporting small firms is more easily justified on the market failure arguments mentioned above, but can also limit the impact of programmes in situations where the

participation of large firms is important if the programme is to have a real impact on the regional economy. If there are no size restrictions, tensions may arise when trying to serve all firm sizes and types with the same programme and instruments. However, interaction between firms of different sizes in the context of a public programme (as opposed to a market relationship) is not straightforward. The level of service needs, the ability for technological absorption and the resources available for R&D are just a few of the important distinguishing factors by firm size. The tension occurs in the design of the instruments and the power dynamics in clusters. The nature of the cluster type (*i.e.*, hub and spoke, Marshallian or satellite) also structures cluster power dynamics by firm size.

This challenge of simultaneously serving small and large firms has been observed, for example in the French *Pôles de compétitivité* programme and the work of UK RDAs. In France, the application process was designed to attract the clusters that drive national economic growth. Therefore, that process was dominated by large firms that may or may not have actively included small firms in their proposals. However, ultimately 52 clusters that did not have an international focus were also selected for a lesser level of support. Small firms have expressed confusion as to their place in these different categories of clusters as well as the relationship between this programme and the prior SPL programme, which specifically targets small firms. The UK RDAs are expected to include representatives of business in their governing boards and to engage individual businesspeople in the formulation of policy. In practice, it is often easier to get representatives of large firms than it is to involve managers of SMEs. Moreover, the interest of policy makers in showing that programmes attract private sector funding could encourage participants to favour the interests and opinions of large firms over those of smaller firms.

Identification methods: analytic and strategic choices

The identification of potential programme participants for cluster programmes is a challenge for several reasons. The first is the difficulty of quantifying the existence and workings of a cluster. Differences in results of identification methods stem largely from the differences in methodology but also reflect different perspectives on what policy should be targeting. This section will describe different issues regarding quantitative and qualitative identification methods, notably the pros and cons of the different approaches and their appropriateness for the different programme types. One of the major distinctions is between top-down and bottom-up identification strategies.

Analytic differences in quantitative identification. There are two basic approaches to mapping of clusters focused on either industry sector concentration alone or a combination of concentration and interdependence. See Box 3.1 for a more

Box 3.1. **Quantifying clusters**

Quantification methods usually compare the ***concentration of different industries*** in specific regions with the national average. This analysis then assesses to what extent each sector is under- or over-represented with respect to the nation as a whole. It may further measure either the performance of the region as a whole or look at the aggregate performance of individual firms. The location quotient or similar statistic is the metric used to identify such over-representation. A principal drawback of this approach is that it depends on industry classifications, which tend to be clear for traditional manufacturing industries but inadequate for broad and rapidly evolving industries such as biotechnology. Standard industry classifications are also poorly adapted to take account of the fuzzy boundary between manufacturing and service employment in many high-technology sectors. Studies of the spatial location of industry in France looked at employment zones (local labour market areas) and analysed where particular sectors were over-represented, with this concentration being not dependent (or not only) on one or more large firms. One such study identified 144 existing clusters in France plus a significant number of emerging clusters (EC, 2002). Another study using a different set of criteria identified 680 potential industrial districts (Lainé, 2001).

The other approach is to look in more depth at the ***productive linkages*** between firms, both within specific sectors and between firms in related sectors in a given region. This analysis is clearly a more difficult task as it requires an understanding of the different components of a value chain and the interactions among suppliers and customers. In practice, this means combining the location quotient – type methodology with something that shows cross-linkages.

The **cluster report for the UK** Department of Trade and Industry (DTI) is a good example of a multi-faceted initiative to quantify clusters and place them geographically using both quantitative and qualitative information. The assessment first identified regional concentrations using location quotients showing over-representation in different sectors and significant concentrations of employment in specific sectors/branches. These regional concentrations were then reviewed using a data set that gave more specific firm-level information about the activities of the larger firms in the regional cluster, which gave clues as to the linkages across sectors/branches. The information was completed with interviews and input from other sources. This final step was important insofar as it enabled some conclusions to be drawn about the nature of the clusters in terms of the subjective criteria, such as:

1. Stage of development (embryonic, established or mature).
2. Depth: deep (complex linkages, multiple institutions), shallow (co-location, few linkages, or unknown).
3. Employment dynamics.
4. Significance: internationally significant, containing internationally competitive industries, nationally significant, large but concerned with domestic markets, regionally significant, or local concentration.

Source: EC and Enterprise Directorate-General (2003b), "Background Paper on Methods for Cluster Analysis", prepared for the Trend Chart Policy Workshop Innovative Hot Spots in Europe: Policies to promote trans-border clusters of creative activity held in Luxembourg, 5-6 May 2003.

detailed explanation of these methods and their drawbacks. They are more commonly used for programmes coming out of industrial policy as opposed to science and technology programmes. Such studies seek to identify at a minimum the largest statistical clusters, meaning those clusters that have the greatest weight in the economy in general or in traded sectors. In some studies, a more detailed competitiveness analysis is used to determine how promising the largest clusters are in general and for the particular country. Spain's Basque Country Competitiveness programme, Finland's National Cluster programme in the late 1990s, and more recently the Czech Republic and Oregon Clusters Initiative have all used the statistical concentration approach in their identification process, at least as a first step.

The statistical cluster mapping studies indicate co-location, but follow-up studies are needed to assess the actual linkages among actors. This information is necessary to develop instruments most adapted to the cluster needs. Several programmes have begun with this basic mapping for identification and then elaborated on this. The Czech Republic, through the Klastry programme, has followed up with the regions and completed over 40 additional mapping studies that go into more depth. These more detailed studies are often part of a programme's initial phase in cluster development. The results of an analysis of this kind in Sweden in 2003 were taken into consideration by some Swedish agencies for their programmes in identifying clusters, but were complemented by other sources of information. A similar but more elaborated approach was used in the United Kingdom as described in Box 3.1. Several other programmes include in their eligible expenses studies to better understand the cluster's linkages.

Relying on a lower level of government. For a national policy, another strategy for identifying programme targets is simply to rely on another level of government, or decentralised central level government agents, to do so. As discussed later in Chapter 5, this type of strategy also helps support policy coherence across levels of government. For example, in Sweden the national government has required that regional governments include cluster and innovation systems as part of their regional growth programs (RTPs). Therefore, the regions, which have better information on the regional economic situation, could help the national level identify potential targets for their programmes. A similar strategy is used in Germany by the GA-networking initiative. The *Länder* identify the most prominent networks as part of their regional strategy for funding under the GA programme. The Japanese Industrial Cluster programme relied on the national ministry's regional officers, in consultation with local and prefectural authorities, to identify the most promising projects for consideration. In the United Kingdom, the DTI provides guidance but the regions identify priority sectors or clusters and determine the levels of support and types of instruments in accordance with their broader Regional Economic Strategy (which is submitted to the DTI and other central ministries for review and approval).

The Italian Law 317, by contrast, was designed as a statistical model that set out clear and very specific criteria for defining an industrial district type cluster that a region may support. These criteria were based on the level of concentration (in terms of employment and number firms) of a particular industry in a given labour market area. This model could then be applied by any region in order to define industrial districts that would then be eligible for support through a variety of SME support measures. As the process of decentralisation advanced, Italian regions gained responsibility for enterprise support and then a number of regions either used their own formula or replicated that of the central government as a means of selecting clusters.

Self-identification. Many programmes simply rely on cluster self-identification, a bottom-up approach. In most cases the universe of potential programme participants is delimited by certain eligibility criteria. Those criteria may concern the number and type of actors required in the cluster (including regional public support), geographical location or the scope of projects or collaboration that can be funded. The challenge is ensuring that the potential targets are made aware of the opportunity to self identify, such as via a request for proposals.

Selection mechanisms: matching programme goals with targets

Selection mechanisms tend to be either competitive (based on an open competition, a call for proposals or similar) or non-competitive (the recipients are designated). Selection can also be characterised as top-down or bottom-up. There are strategic reasons for using these different types of mechanisms based on parameters such as programme goals, policy maker knowledge about the universe and quality of potential participants, and ambitions for leveraging additional funds. Different selection mechanisms may also entail varying transaction costs which can be compared with the benefits of different options. A summary of these options is outlined in Table 3.2.

Competitive selection (including bottom-up). Most of the programmes that have a strong innovation focus used a competitive selection process. This is consistent with the purpose of such programmes, which is to support the highest quality proposed projects that are promising sources of economic growth. In the case study countries, such programmes include Sweden's VINNVÄXT (150 applicants), the French *Pôles de compétitivité* programme (105 applicants), Germany's BioRegio, InnoRegio and BioProfile programmes, and Norway's new Centres of Expertise.

Even when lagging regions are a possible or explicit target, some programmes include a competitive selection progress to identify the best public investments within the target group. Germany's InnoRegio, while targeting the lagging Eastern *Länder*, selected only 23 out of 444 applying networks. Other programmes open to lagging regions also included a competitive process. The

Table 3.2. **Rationale for different selection mechanisms**

Mechanism	Rationale
Competitive	• When best participants not clear upfront • Gauge motivation of participants • Value of labelling effect • Longer–term spillovers for groups not selected
Limited number	• Clear prioritisation of resources • Value of labelling effect
Top-down	• Clear targets (strategic, quantitatively identifiable) • Coherence with other programmes
Bottom-up	• When best or possible participants not clear upfront • Information best obtained by self-identification • Gauge motivation of participants
Combination	• Best choice in a pre-defined universe • Lower level of government best placed to select • Collaboration across levels of government required • Special additional considerations in cluster selection

French SPL programme used a competitive process in the several rounds of funding. The Finnish Centres of Expertise, across both leading and lagging regions, compete periodically for designation and annually for funding.

The structure of these competitions often recognise that, although there may be a critical mass of firms, many potential applicants to a competition would need time to prepare an effective application. As such, some programmes are based around a pre-selection or multi-stage selection process. For example, the Czech Klastry programme provides Phase 1 funding to the initiating group to identify other potential partners for a cluster initiative. Funding therefore covers studies and other expenses in the development of the group prior to the funding of more substantial collaboration. The first round of VINNVÄXT funding also included a two-stage process such that a subset of candidates received funding to further develop their proposals.

One of the explicit goals of Norway's Arena programme is a highly flexible procedure for selection that allows different points of entry. If an idea for a project needs development, the group may enter at Stage A and receive funding for a preliminary study. If the group is a bit more advanced, it may enter at Stage B directly with a preliminary project. If the initiative were truly advanced, it may enter at Stage C for a main project. A similar staged process was also used for the InnoRegio Programme in Germany.

Limited selection via credible mechanisms. While a competitive selection process can contribute to the importance of a labelling effect, the number selected in the process must also be limited. Those programmes seeking to support leading regions or industries are often more strict in the selection process and the numbers funded. The Norwegian Centres of Expertise is seeking specifically to limit the number of selected clusters such that the

labelling effect would be important enough to attract international attention. The Swedish VINNVÄXT programme in its first round selected only 3 full recipients and 7 partial recipients out of 150 initial applicants, with the second round selecting only 5 out of 23. While France did select a very large number of clusters, they developed a four-tier labelling system to distinguish among them: 6 were "international", 9 were "internationally oriented", 15 were "inter-regional" and 37 were "regional".

The capability and credibility of the bodies that make selections plays a role in the programme's public perception and hence the effectiveness of this label. The involvement of private actors appears to be an important source of credibility in this process. The Georgia Research Alliance, for example, serves as an expert body to select the most relevant research projects to support growth in Georgia. While state legislators vote to allocate the funding to the GRA, its Board members are representatives from universities (many are private entities) and industry. Most countries have selection committees comprised of both public and private actors. In cases where the selection process is performed entirely by civil servants, the process is more subject to debate. In France, for example, the lack of private sector involvement in the selection committee has been raised by the policy's critics. However, France does have a committee to ensure the integrity of the cluster label. In Sweden, the fact that the programme designation was national, and not only regional, was observed in evaluations to play an important role in cluster legitimacy.

One additional benefit of competitive selection procedures is that sometimes, even for candidates that do not get selected, the process in and of itself resulted in network building and action plans. Sweden's VINNVÄXT programme only accepted a small fraction of the applications received. When Sweden's subsequent Visnau programme was introduced, many of these groupings who had already worked together on a VINNVÄXT application applied to Visanu and were selected. Some networks have also worked together to reapply for subsequent VINNVÄXT funding rounds. The same result was found in Germany. Unsuccessful applicants to the BioRegio and InnoRegio programmes have gone on to develop their projects on the basis of other funding mechanisms. The momentum that was generated by the BioRegio competition led to the expansion of support to biotechnology via the BioProfile programme to a larger number of regions, many of which had been unsuccessful applicants for BioRegio.

Top-down selection. There are several technology- and innovation-focused projects that used a top-down selection process for strategic reasons. Finland's National Cluster programme had allocated R&D funds to the largest statistical clusters in its recession recovery efforts. In Italy, the Technological Districts were selected on the basis of criteria such as the availability of a well-structured project, the coherence of the project with the strategic fields of the national S&T policy, and the participation and leadership in the district of public and private

stakeholders. The Korean Innovative Cluster Cities selected are consistent with the national industrial vision of strategic industries, the pilot locations selected being the most promising. Finally, Japan's two cluster programmes were both top-down in the sense that the selection was led by officials of the central ministries and followed the strategic lines set out in policy documents for industry and science. However, in the case of the Japanese Industrial Clusters programme, the top-down approach to a selection procedure was tempered by a bottom-up element: regional level staff of METI made the selection.

Statistical methods versus *negotiated approaches (or a combination of the two)*. While some selection processes are based solely on statistical mapping, several programmes have used the flexibility of a dialogue or negotiated process. The statistical selection is based on objective criteria less subject to political influence but it can miss clusters important for other reasons. Programmes based on a mapping include the former Finland National Cluster programme and the Oregon Cluster Industries approach, in both cases seeking to target the largest sectors. Several programmes used a combination of a preliminary cluster identification followed by a dialogue for a final selection so as to preserve some flexibility and ensure participant motivation. After Spain's Basque Country competitiveness assessment, the region promoted a public/private dialogue to select the pool of initially eligible sectors. Interestingly, that dialogue gave a list that was different from the Porter-inspired competitiveness exercise, albeit there were some areas of overlap. It was then up to the firms themselves to decide if they would go forward as a formal cluster. One identified cluster had even declined to participate in the beginning of the programme but later chose to join. Since that first selection round in the early 1990s, other clusters have self-identified to authorities and, if convincing, have became part of the cluster programme.

Sweden and Montreal have also used this dialogue/negotiation process in cluster selection. The Visanu and Regional Cluster programmes in Sweden used a dialogue method to select participating clusters, but did not rely solely on those clusters already prioritised in regional growth plans or identified by a statistical mapping. The process was also used to adjust for the complexity of large urban areas, which made it more difficult for projects in the Stockholm and West Gotia regions to be selected under VINNVÄXT given the importance of regional consensus on priority sectors to the selection process. A recent process in Montreal, a city with strong industrial specialisations in aeronautics and pharmaceuticals, took the form of a cluster audit (Box 3.2). The city was looking to establish a more comprehensive cluster development strategy to take into account different categories of existing clusters as well as to identify new opportunities. On the basis of the statistical analysis of established and emerging clusters, the metropolitan authority (CMM) worked with a range of actors to develop a consensus around the main priorities for resource allocation.

Box 3.2. **Cluster audit in Montreal**

The first task for policy makers was to identify the key characteristics of clusters and understand their different dynamics and potential. This work was undertaken in Montreal through the Metropolitan Strategy for Economic Development by Area of Excellence (*Stratégie métropolitaine de développement économique par créneaux d'excellence*). Montreal's economy is based on strong specialisation in a number of sectors. The preliminary research phase identified 15 possible clusters to focus on in Greater Montreal: agriculture/bio-food, professional and business services, tourism/leisure, aerospace, information technology, life sciences, nanotechnology, metals and metal products, fashion/textiles, transportation/distribution, plastics, composite materials, printing/publishing, chemicals, and environmental industries. These were divided into three categories: existing/traditional clusters, emerging clusters and diffused clusters (those not geographically concentrated).

The point of departure in the case of Montreal was that the strategy should take a metropolitan-region perspective. Unless cluster initiatives are specifically structured to engage actors throughout the metropolitan region, they run the risk of heightening the tensions that exist between smaller municipalities in the region and the new mega-city of Montreal itself. A second principle of the cluster strategy was that it should address problems of duplication among institutions, streamlining interventions according to an agreed set of priorities. Given the potential for conflict between proponents of specific locations or specific institutions, it was important that the process of identifying priority clusters and priority measures was both transparent and focused. In this respect, the initiative to engage a working group to elaborate a development strategy based on clusters "of excellence", appears to be an important step forward. While there is a great deal of activity around the different clusters – various cluster-based associations and committees – there had not been until then an overview of the range of clusters in the metropolitan region that both diagnosed strengths and weaknesses and proposed concerted policy action. The ultimate aim of the group is to follow an open methodology by which the results are verified and lead to agreement regarding the policy actions as well as the level and type of public investment.

Source: OECD (2004), *OECD Territorial Reviews: Montreal, Canada*, OECD Publications, Paris.

ISBN 978-92-64-03182-1
OECD Reviews of Regional Innovation
Competitive Regional Clusters
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Bibliography

Andersson, Thomas *et al.* (2004), *The Cluster Policies Whitebook*, International Organisation for Knowledge Economy and Enterprise Development, Malmö, Sweden.

Barkley, David and Mark Henry (2001), *Advantages and Disadvantages of Targeting Industry Clusters*, REDRL Research Report 09-2001-01, Regional Economic Development Research Laboratory, Clemson University, Clemson, SC, September 2001.

Beffa, Jean-Louis (2005), "*Pour une nouvelle politique industrielle*" (Towards a New Industrial Policy), Report submitted to the French Government January 15, 2005.

Blanc, Christian (2004), "*Pour un écosystème de la croissance*" (An Ecosystem for Growth), Report submitted to the Prime Minister, National Assembly.

Brusco, Sebastiano (1982), "The Emilian Model: Productive Decentralisation and Social Integration", *Cambridge Journal of Economics*, Vol. 6(2), pp. 167-184.

Bergvall, Daniel *et al.* (2006), "Intergovernmental Transfers and Decentralised Public Spending", *OECD Journal of Budgeting*, Vol. 5, No. 4, OECD Publications, Paris.

Coe, N.M., M. Hess, H.W.C. Yeung, P. Dicken and J. Henderson (2004), "Globalizing Regional Development: a Global Production Networks Perspective", *Transactions of the Institute of British Geographers*.

Conference Board of Canada (2004), *Clusters of Opportunity, Clusters of Risk*, The Conference Board, Ottawa, Canada.

Cooke, Philip (2004), "Regional Knowledge Capabilities, Embeddedness of Firms and Industry Organisation: Bioscience Megacentres and Economic Geography", *European Planning Studies*, Vol. 12, pp. 625-641.

Cortright, Joseph (2006), *Making Sense of Clusters: Regional Competitiveness and Economic Development*, The Brookings Institution, Washington, DC.

Cortright, Joseph and Heike Mayer (2002), *Signs of Life: The Growth of Biotechnology Centres in the US*, The Brookings Institution Center on Urban and Metropolitan Policy, Washington, DC.

CzechInvest (2003), *Cluster Funding: A comparative study of the methods for financing uses in the establishment of industrial clusters in the EU and countries about to join the EU*, unpublished report.

Department of Trade and Industry, United Kingdom (DTI) (1998), *Competitiveness White Paper: Our Competitive Future – Building the Knowledge Driven Economy*, DTI Publications, London.

DTI (2001), *UK Business Clusters in the UK: A First Assessment*, DTI Publications, London.

DTI (2004), *A Practical Guide to Cluster Development*, a report to the Department of Trade and Industry and the English RDAs by Ecotec Research and Consulting, DTI Publications, London.

Dunning, John (1992), "The Competitive Advantage of Countries and the Activities of Transnational Corporations", *Transnational Corporations*, Vol. 1.1.

Enright, Michael (1998), "The Globalisation of Competition and the Localization of Competitive Advantage: Policies toward Regional Clustering", Paper presented at the Workshop on Globalisation of Multinational Enterprise Activity and Economic Development, University of Strathclyde, Glasgow, Scotland, 15-16 May 1998.

Ernst, Holger and Nils Omland (2004), "Vitalisation of Industry through the Promotion of Knowledge Intensive New firms: The Case of German Biotechnology", Presentation made at the Japan Institute for Labour Policy and Training, Tokyo, Japan, 26 March 2004.

Ernst and Young (2005), *Étude relative à l'implication des PME et des SPL dans les Pôles de compétitivité* (Study of the Involvement of SMEs and Local Production Systems in the Competitiveness Clusters), Draft report to the DATAR.

EC and Enterprise Directorate-General (2002), *Regional Clusters in Europe: Observatory of European SMEs* (No. 3/2002), European Commission, Brussels.

EC and Enterprise Directorate-General (2003a), "Background Paper on Cluster Policies", prepared for the Trend Chart Policy Workshop, *Innovative Hot Spots in Europe: Policies to promote trans-border clusters of creative activity*, held in Luxembourg, 5-6 May 2003.

EC and Enterprise Directorate-General (2003b), "Background Paper on Methods for Cluster Analysis", prepared for the Trend Chart Policy Workshop, *Innovative Hot Spots in Europe: Policies to promote trans-border clusters of creative activity*, held in Luxembourg, 5-6 May 2003.

EC and Enterprise Directorate-General (2003c), *Thematic Report: Cluster Policies*, Brussels.

EC and Enterprise Directorate-General (2003d), *Theme-specific Country Report – Denmark*, European Trend Chart on Innovation.

EC and Enterprise Directorate-General (2004a), *Annual Innovation Policy Trends and Appraisal Report – Denmark*, European Trend Chart on Innovation.

EC and Enterprise Directorate-General (2004b), *Annual Innovation Policy Trends and Appraisal Report – Germany*, European Trend Chart on Innovation.

Gordon, I. and McCann (2000), "Industrial clusters: Complexes, agglomeration and/or social networks?", *Urban Studies*, Vol. 37(3), pp. 513-532.

Holm Dalsgaard, Mette (2001), "Danish Cluster Policy: Improving Specific Framework Conditions", in OECD (2001), *Innovative Clusters – Drivers of National Innovation Systems*, OECD Publications, Paris.

Higher Education Policy Institute (2004), "Research and regions: an overview of the distribution of research in UK regions", Centre for Policy Studies in Education, University of Leeds.

Kodama, Toshihiro (2004), "Cluster Promoting Initiatives in Japan", presented at the conference *Innovation and Regional Development*, sponsored by the OECD, EU Erik Network and the Tuscany Region, Florence, Italy, November 2004.

Krugman, Paul and A.J. Venables (1990), "Integration and the Competitiveness of the Peripheral Industry", pp. 55-77, in Bliss, C. and J. Braga de Macedo (eds.), *Unity with Diversity in the European Economy*, Cambridge University Press/CPER, Cambridge/London.

Lainé, Frédéric (2001), "Une approche statistique des systèmes productifs locaux" (A Statistical Approach to Local Production Systems), in *Réseaux d'entreprises et territoires : Regards sur les systèmes productifs locaux* (Networks of Firms and Regions: Local Production Systems), DATAR, la Documentation Française, Paris.

Loughlin, John (2000), "The Regional Situation in the Year 2000", Assembly of the European Regions, Brussels.

Lublinski, Alf Erko (2003), "Does Geographic Proximity Matter? Evidence from Clustered and Non-clustered Aeronautic Firms in Germany", *Regional Studies*, Vol. 37, pp. 453-467.

Lundvall, Bengt-Åke and Björn Johnson (1994), "The Learning Economy", *Journal of Industry Studies*, Vol. 1, pp. 23-42.

Markusen, Anne (1996), "Sticky Places in a Slippery Space: A Typology of Industrial Districts", *Economic Geography*, Vol. 72, pp. 293-313.

Martin, Ron and Peter Sunley (2003), "Deconstructing Clusters: Chaotic Concept or Policy Panacea?", *Journal of Economic Geography*, Vol. 1, pp. 5-35.

Ministry of Economy, Trade and Industry (METI) (2005), *Report on Industrial Cluster Programme*, evaluation report submitted to METI by the Industrial Cluster Study Group.

National Governor's Association (NGA) (2001), *National Governor's Guide to Cluster-Based Economic Development*, Washington, DC.

Organisation for Economic Co-operation and Development (OECD) (1999a), *Boosting Innovation: The Cluster Approach*, OECD Publications, Paris.

OECD (1999b), "Report on Innovation and Territories: Upgrading Knowledge and Diffusing Technology in a Regional Context", OECD internal document DT/TDPC(99)8, 17 May 1999.

OECD (2001), *Innovative Clusters: Drivers of National Innovation Systems*, OECD Publications, Paris.

OECD (2004), *OECD Territorial Reviews: Montreal, Canada*, OECD Publications, Paris.

OECD (2005), *Building Competitive Regions: Strategies and Governance*, OECD Publications, Paris.

OECD (2006), "The Changing Nature of Manufacturing in OECD Countries", OECD internal document DSTI/IND(2006)1, 13 February 2006.

Pietrobelli, Carlo and Roberta Rabelloti (2002), *Business development service centres in Italy, An empirical analysis of three regional experiences: Emilia Romagna, Lombardia and Veneto*, Prepared for the Restructuring and Competitiveness Network, United Nations ECLAC, Santiago, Chile.

Porter, Michael (1990), *The Competitive Advantage of Nations*, The Free Press, New York.

Porter, Michael (1994), "The Role of Location in Competition", *Journal of the Economics of Business*, Vol. 1, No. 1.

Porter, Michael (2003), "The Economic Performance of Regions", *Regional Studies*, Vol. 37, pp. 549-578.

Power, D and M. Lundmark (2004), "Working through Knowledge Pools: Labour Market Dynamics, the Transference of Knowledge and Ideas, and Industrial Clusters", *Urban Studies*, Vol. 41, pp. 1025-1044.

Reich, Robert (1991), *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*, New York, Alfred A. Knopf.

Rissanen, Juho and Jukka Viitanen (2001), *Report on Japanese Technology Licensing Offices and R&D Intellectual Property Right Issues*, The Finnish Institute in Japan.

Roelandt, Theo J.A. and den Hertog, Pim (1999), "Cluster Analysis and Cluster-based Policy Making in OECD Countries: An Introduction and Theme", in *Boosting Innovation: The Cluster Approach*, OECD Publications, Paris, France, pp. 9-23.

Romer, Paul M. (1990), "Endogenous technological change", *Journal of Political Economy 98(5)*, pp. 71-102.

Rosenfeld, Stuart (2001), "Networks and Clusters: The Yin and Yang of Rural Development", in the conference proceedings *Exploring Policy Options for a New Rural America*, Federal Reserve Bank of Kansas City, Kansas City, Missouri, pp. 103-120.

Saxenian, AnnaLee (1994), *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, Harvard University Press, Cambridge, MA.

Sforzi, Fabio (1990), "The Quantitative Importance of Marshallian Industrial Districts in the Italian Economy", in Pyke *et al.*, *Industrial districts and inter-firm co-operation in Italy*, IILS, Geneva.

Sölvell, Örjan, Lindqvist, Göran and Christian Ketels (2003), *The Cluster Initiative Greenbook*. Ivory Tower AB, Stockholm, Sweden.

Storper, Michael (1997), *The Regional World*, Guildford Press, New York.

Storper, Michael and Anthony Venables (2004), "Buzz: Face-to-Face Contact and the Urban Economy", *Journal of Economic Geography*, Vol. 4, Issue 4, pp. 351-370.

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Case Studies

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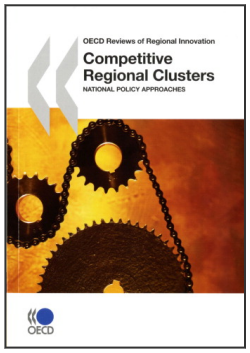

From:

Competitive Regional Clusters

National Policy Approaches

Access the complete publication at:

https://doi.org/10.1787/9789264031838-en

Please cite this chapter as:

OECD (2007), "How Do Programmes Pick Participants?", in *Competitive Regional Clusters: National Policy Approaches*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264031838-6-en

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