

Regional Innovation Reviews

Competitive Regional Clusters: National Policy Approaches

Summary in English

Why are cluster policies still popular?

While the cluster concept is not new and remains subject to debate, national programmes based on a cluster model continue to be prominent and are adapted to an increasingly wide variety of contexts. The goal of the report is not to revisit a theoretical debate regarding definitions but rather to understand why, in practice, there is renewed policy interest in supporting clusters. Programmes use a range of cluster-type definitions and approaches but start from common assumptions about the value of the agglomeration of firms and the importance of linking people, skills and knowledge at a regional level.

A number of basic motivations lie behind support for clusters. There is strong quantitative evidence that many industries remain relatively concentrated in specific regions and those firms and research generators in proximity can out-perform their counterparts located in less rich environments. Countries are seeking to strengthen or replicate the success factors that have encouraged the concentration of innovative firms associated with the knowledge economy. They are also looking for instruments that can help maintain employment and promote restructuring and adaptation in other sectors. Furthermore, clusters are a convenient and pragmatic organising principle by which to focus resources and build partnerships. A clear rationale for the public sector to support clusters concerns the transaction costs and co-ordination costs to bring the appropriate actors together.

Nevertheless, there are risks related to the use of a cluster approach generally, as well as with more specific risks relating to the design of these programmes. Insufficient economic diversification, lock-in (in the sense of being tied by long-term investment strategies to supporting specific sectors and being unable subsequently to change track) or over-reliance on key firms are among the dangers that are associated with the cluster approach. Other concerns relate to how effective the public sector can be in identifying instruments that can help firms to react to very rapid changes in global markets and production systems.

What are the programmes trying to achieve?

National and EU level programmes to support clusters and regional specialisation originate from one of three main policy families: regional policy, science and technology

(S&T) policy or industrial/enterprise policy. All three policy areas have undergone changes in policy orientation away from a top-down and single-sector approach towards policies that favour co-operative, multi-actor and often more place-based approaches. These trends have supported increased policy interest in programmes to develop or strengthen regional specialisation and cluster development with an ultimate goal of improving competitiveness and innovation capacity.

Cluster policies linked to regional policy often focus on so-called lagging regions, including regions undergoing industrial restructuring and geographically peripheral regions. In addition, several initiatives originating in other policy families have incorporated a clear regional dimension, reflecting the recent emphasis in science and technology as well as enterprise policy on the importance of regions (such as regional innovation system concepts).

Several of the more recent cluster/regional specialisation programmes were born from science and technology policy. They promote collaborative R&D to support growth of the most promising technology sectors in regions where these sectors are concentrated. Albeit in theory spatially neutral, in practice such policies often focus on specific geographic areas where key institutions, researchers and firms are clustered.

Industrial policies with cluster programmes tend to focus either on the drivers of national and regional growth or focus on the needs of SMEs. The cluster approach provides a more transparent, inclusive and potentially less trade-distorting framework for efforts to strengthen strategic sectors than the prior policies of supporting large and often state-owned firms. Programmes to support SMEs started as early as the 1980s and tend to focus on building critical mass for export, access to information and technology absorption. Programmes that focus on disadvantaged regions also tend to be closely linked with SME policy.

Most national programmes in OECD countries link more than one policy stream, either explicitly or implicitly. A notable trend is the emergence of innovation as an objective in policies other than those directly related to S&T policy. A few programmes integrate all three policy streams – regional, S&T and industry/enterprise – in some cases involving considerable resources and registering high on the country's public policy agenda. A key question is whether one programme can address all those objectives simultaneously. Over time, these policies have generally transitioned from SME-based programmes to those supporting national competitiveness clusters and they increasingly focus on technology and innovation.

How do programmes pick participants?

The economic rationale for government intervention serves to define the different choices regarding programme targets. Those targets may be *places* (leading regions, lagging regions, hub areas), *sectors* (dynamic, exposed, strategic, social significance) or *specific actors* or groups of actors (universities, SMEs, multinationals, etc.). They could also be a combination of these different target categories. The targets then need to be clearly identified in order to ensure that the resources available for the programme are adequate and that goals are achievable. There are clear tradeoffs to be made in selecting these different targets.

These choices are not always evident. Focusing on leading regions that drive national growth is arguably an efficient means to boost national economic performance. However lagging regions detract from social cohesion and can be a drag on national growth. Supporting dynamic sectors may give them a competitive edge with important technological spillovers for the wider economy, while refocusing exposed sectors to new opportunities can preserve employment and promote restructuring of regional economies. Improving opportunities for certain priority sectors helps to focus resources but often involves predicting the evolution of volatile and fast-moving product markets. On the other hand, providing a blanket cluster programme for all sectors or regions can dilute available resources and focus.

Identification of clusters can be *top-down*, *bottom-up* or a *combination* of the two. Countries identify potential programme recipients mainly through two contrasting approaches: either (1) a statistical method, such as a mapping study, or (2) a process of self-selection, such as a call for proposals. The former is particularly used when the goal is to support national economic drivers. In some instances, national programmes provide only a general framework and rely on regions to identify target clusters within their jurisdictions.

The selection mechanisms used include both *competitive* and *non-competitive* procedures. Competitive selection has the benefit of identifying programmes with the best potential impact given the level of public investment and sends a signal to the market through the label process. Another benefit to this selection mechanism is that groups that come together in a competitive process may build useful relationships even if not selected.

Among the top-down selection procedures, there is a trade-off between *statistical* versus *negotiated* approaches. Policy makers can use statistical mapping or other quantitative measures as strict selection criteria. However, because of methodological issues and definitional problems, these may give results that are contestable. There are also more flexible, even negotiated approaches which take into account a wider range of selection factors but such processes are then subject to other political influences. Several programmes have used a hybrid approach.

What instruments do they use?

In general, the instruments used in these programmes are of three distinct types: (1) engagement of actors, (2) collective services and (3) larger-scale collaborative R&D. In terms of engaging actors, key issues include: the role of facilitators, the level and type of interaction desired, the existence of a formal cluster initiative, and the spatial considerations of the cluster. For the programmes that emphasise collective services (*e.g.*, business advice, skill development or joint marketing) a key consideration is how to target services in a way that does not substitute for private provision. Finally, collaborative R&D projects through cluster programmes tend to involve more than one research institution or university in co-operation with several firms and often tap into external R&D funding sources and programmes.

In general, the funding patterns of these programmes can be broken down into three basic categories. The first category for instruments to engage actors tend to spend less

than 100 000 EUR per cluster per year for three years or less. A second category of spending includes programmes that emphasise service delivery and support for collaborative projects, including “light” R&D, with spending from between 100 000 to approximately 1 million EUR per cluster annually over several years. A third category for “heavy” R&D projects includes projects that spend over 1 million EUR per cluster annually for periods up to ten years. Overall it does appear that the level of funding for the majority of these programmes is relatively modest, albeit they may be used to leverage additional funding sources.

Which level of government should do what?

Governance frameworks and the spatial nature of the benefits of clusters both play a role in the development and implementation of policies to effectively promote regional specialisation and clusters. For such programmes, there are economic rationales for all levels of government (local, regional, national and in some cases supra-national) to support them. These different rationales are based on different perspectives on the value of clusters, for example, as the basis for EU competitiveness policy or a national growth programme at a macro level versus as a local employment hub for regions.

With the blurring of distinctions among objectives, especially since innovation is a core aim for different policy streams, central level co-ordination is becoming increasingly important. Strategies at the central level to ensure co-ordination include inter-ministerial or inter-agency committees that conceptualise, design or even implement programmes jointly. Overarching national plans that include these programmes also serve to co-ordinate efforts at the central level, as do different groups promoting public/private dialogue such as competitiveness councils.

The articulation of national and regional roles in these policies is clearly dependent on the institutional frameworks. The programmes reviewed are embedded in a variety of constitutional frameworks that range from a federal structure with very strong sub-national governments as well as unitary countries in regionalised, decentralised or centralised forms. Unitary countries may simply develop the programme at the national level. Federal countries and certain unitary countries have to rely on financial incentives to engage their more autonomous sub-national governments. Strategies to develop policy coherence across levels of government for cluster-based policies include several common approaches to vertical governmental relations.

What have we learned?

One of the major challenges to clearly identifying what we have learned about cluster policy is that we lack robust tools to measure whether or not a policy or programme was successful. Evaluations are not available for all programmes, although several use some sort of evaluation or monitoring component for on-going funding decisions. Possible evaluation methods concern (1) the performance of a cluster or cluster initiative and (2) evaluations of the impact of a particular policy intervention. Both merit stronger analytic frameworks. Despite these challenges, policy learning, even if not through a formal evaluation, has provided some very useful input on programme design and cluster processes. There are also many lessons to be learned in programme design, based on the

practices across OECD countries, that could help at least improve the likelihood that the programmes will be successful in their ultimate goals.

A first set of lessons learned concerns the degree to which these programmes are appropriate, realistic and flexible enough to achieve their goals. First, there needs to be a compelling reason for why a cluster policy, as opposed to another policy that may be open to all firms, is the most appropriate to achieve the desired goals. Often the stated goals of these cluster-type programmes are broad or vague, seeking generally to enhance competitiveness or innovation capacity. This lack of clarity in turn makes it difficult to select the right targets and establish programme funding levels and duration that are adequate to meet those goals. Given that these clusters may be in different lifecycle stages, region types or sectors, programmes are more likely to be successful when there is a certain degree of flexibility.

A second set of lessons learned relates to policy coherence within and across levels of government. Because these policies are emanating from at least three policy streams, it becomes even more important for policy makers to have a clear understanding of what other policies exist and how they can work together or in a complementary fashion. Given the importance of clusters to a particular region's economic health, as well as their importance for national competitiveness goals, the policies are developed at different levels of government. The interests of each level, as well as their respective resources and capacity, are important considerations in the articulation of national and regional level programmes.

A third set of lessons learned is about the risks involved in such policies, which are often related to insufficient private sector engagement. The long-term effectiveness of such policies depends on the private sector continuing to act after a programme ends. Even during a programme period, it is the private sector that is best equipped to react in a timely manner to market changes. Several programme evaluations have noted the excessive public sector role and the unsuccessful public sector exit strategy. There are also general risks for supporting clusters. One common problem is the ability of the public sector to "pick winners." Other risks include locking in existing clusters and technologies, making it more difficult for other clusters or technologies to develop. Careful policy design can help mitigate these risks if they are addressed explicitly.

© OECD 2007

Reproduction of this summary is allowed provided the OECD copyright and the title of the original publication are mentioned.

Multilingual summaries are translated excerpts of OECD publications originally published in English and in French.

They are available free of charge on the OECD Online Bookshop
www.oecd.org/bookshop/

For more information, contact the OECD Rights and Translation unit,
Public Affairs and Communications Directorate.

rights@oecd.org

Fax: +33 (0)1 45 24 99 30

OECD Rights and Translation unit (PAC)
2 rue André-Pascal
75116 Paris
France

Visit our website www.oecd.org/rights/

