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► **To cite this version:**

Christian Longhi, Sylvie Rochhia. Cluster policy for innovation and competitiveness. Lessons from the French experience. *European Review of Industrial Economics and Policy* , 2012, 5, 10.61953/suptest.2878 . hal-03469460

HAL Id: hal-03469460

<https://hal.science/hal-03469460v1>

Submitted on 7 Dec 2021

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Cluster policy for innovation and competitiveness. Lessons from the French experience

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The new French regional policy seems to be at odds with the past. It encompasses the different dimensions of the public policy: industrial, R&D, innovation, competitiveness policies. Globalization and European integration have swept the old French 'Colbertist' approach, and promoted the implementation of an active cluster strategy. The 'Competitiveness Clusters', complemented by additional devices (Local Productive Systems, Grappes), are the embodiment of this new regional policy, promoting a bottom-up strategy designed to govern public intervention. The paper details this strategy and assesses its first results.

Cluster Policy, Competitiveness Clusters, 'Grappes', Industrial Policy, Regional Policy

1. Introduction

Cluster initiatives are henceforth very popular among policy makers in France, both at the national and the regional or local levels. They encompass the different dimensions of the public policy: regional, industrial, R&D, innovation, competitiveness policies, embodying the fact that, even as the world becomes increasingly globalized, the local level is basically crucial to foster wealth and economic development.

In France, these cluster-oriented strategies are at odds with the past. Regional and industrial policies were both highly centralized, but strictly apart. The traditional regional policy amounted to a top-down support to the lagging regions, to centralized decisions of industrialization ('Aménagement du Territoire') governed by the DATAR,¹ the French *National Agency for Spatial Planning*. The industrial policy was mainly sector based, promoting industrial 'Grands Projets' implemented by 'national champions' gathering most of the R&D and innovation resources and subsidies. This policy vanished, and the rebirth of public policy is gone with the implementation of active cluster strategies. The 'Competitiveness Cluster Policy'² is the embodiment of this new regional policy, promoting a bottom-up strategy designed to govern public intervention; it is nevertheless complemented by additional devices at the national and regional levels, as showed by the following Figure 1.

Figure 1. Cluster policies in France



Source: DATAR 2011.

¹ DATAR: Délégation interministérielle à l'Aménagement du Territoire et à l'Attractivité Régionale.

² Politique des 'Pôles de Compétitivité'.

Public policy constructed models acknowledging the importance of the local context and the necessity to build on existing resources had been implemented in France before the ‘Competitiveness Cluster Policy’. By the end of the nineties, a new tool for regional policy, Local Productive Systems³ (LPS) emerged; it was a first experience of top down pressure, of exogenous – endogenous mix policy, implemented by the DATAR, which is in charge of regional policy and attractiveness of territories. In late 1997, government policy initiated a support to LPS, on a selective basis (European Policies Research Center, 2006). 96 LPS were identified in 1998 and 1999 after two calls for projects, and received public funding (up to €3.6 million) from different sources (local and regional authorities, National Fund for Territorial Development, French state support). In the selective process, the stress was put on geographical concentration of activities and on inter-firms connections and also on pre-existent local organization of cooperation. In a few words, local specific resources must exist prior public support.

This first policy specifically directed towards clusters can be characterized by three main points:

public support is weak, on financial ground, but meaningful in identifying LPS as an important form of economic organization;

public support is really selective, as around 680 potential LPS can be identified and only 96 are supported;

innovation is not at stake with LPS, but some have a positive impact not on R&D as a whole, but rather on the “D” part of R&D (Ginsboger *et al.*, 2006).

Nevertheless the LPS policy was a classical regional policy, as it focused on traditional industries, SMEs, and peripheral regions. The main change with the definition of CC, is that innovation is at the heart of the regional policy, and thus that regional policy is inextricably linked with industrial, R&D and technological policies. As a consequence, the focus on the local resources is even more important than in the LPS, which were of limited scope.

The paper will focus on the Competitiveness Cluster policy, its definition and outcomes. The conditions of fulfillment of such policies based on this device will be raised (2). The characteristics of CC will be highlighted: diversity (3) and localization (4). The results of the policy are contrasted. It can be considered as efficient regarding innovations and implementation of R&D local collective projects in advanced clusters, but the policy cannot resume to this unique device (5). So, other strategies will have to be implemented for clusters more oriented towards development and markets that towards innovation and research. This need has resulted in the creation of the “Grappes” (literally “Clusters”), a policy dedicated to less advanced clusters, and aiming to complement the CC (6). Section 7 will conclude.

2. Competitiveness Cluster: Definition and implementation

The cluster-oriented strategies have been discussed with the debates on the attractiveness of the French economy which stressed the importance of R&D/innovation performance in a knowledge-based economy.

The September 14th 2004, the ‘Inter-ministerial Committee for Spatial Planning and Development’ (CIADT⁴) announced the creation of the ‘Competitiveness Clusters’ (CC) aiming “*at reinforcing the specializations of the French economy, at favoring the emergence of new activities and at reinforcing the attractiveness of the territory*”. The objective was to preserve the national employment and wealth through the creation of territorially embedded CC able to face international competition. The relevance of this strategy has been supported by different reports on the French economy as well as by an important academic literature not addressed in this paper [references are given at the end of the paper].

³ Système Productif Local (SPL).

⁴ CIADT: Comité Interministériel d’Aménagement et de Développement du Territoire. The CIADT, chaired by the Prime Minister, sets the government’s guidelines for spatial planning and development.

The clusters can emerge from *spontaneous occurrences* or from *public policy constructed models* (Mytelka and Farinelli, 2000). The French CC are in fact *in-between*; they are projects defined and run locally by firms on the base of existing resources and territorially embedded competences, but incentives and selection processes are public policy initiatives. According to the terms used by Kiese (2006) to depict the German context, the policy consists on ‘increasing top-down pressures on regions or local areas to position themselves’, i.e. to build projects of development based on their technological capabilities or knowledge bases. These incentives to foster bottom-up designs of the R&D and technological policies, locally embedded, are consequences of the process of globalization of knowledge-based economies. The relative success or failure of this “new industrial policy” implemented in France – opposed to the traditionally distinct industrial, technological, regional policies would provide a better understanding of the changes in the French economy and its capacity to face the contemporaneous economic challenges.

How the new policy aiming at the emergence of CC has been implemented? In fact at its meeting of 14 September 2004, the Inter-ministerial Committee for Spatial Planning and Development (CIADT) decided to issue a *call for projects* in order to select the first competitiveness poles. The call was not designed to meet a very specific focus, so as to give more initiative to candidates and let them build dedicated projects depending on their own characteristics.

“A Competitiveness Cluster is the combination on a given geographic space of firms, training institutions and public or private research centers engaged to generate synergies in the execution of shared innovative projects. The partnerships can be organized towards a market or a scientific and technological domain”; this was in substance the definition given by the DATAR to the potential candidates for the label Competitiveness Cluster attributed to local areas.

In order to receive the label, a project is required to meet a list of specifications defined in November 2004 by the French government. There are four key criteria detailed in the call for projects:

a development strategy that remains consistent with the economic development of the pole’s local area; the territory related to the pole is endogenously defined by the project, and not given a priori according whatever administrative definition; a critical mass is implicitly necessary; a sufficient international visibility, in terms of industry and/or technology; a partnership between the different actors of the project and a structured, operational mode of governance; the capacity to generate synergies in R&D, resulting in the creation of new wealth with high added value.

The aim is clearly to encourage, then to support, projects initiated by economic and academic agents in a given local area, and to foster public – private local partnerships. For the CIADT (2004) bringing together industrial, scientific and academic players in a given local area is supposed to provide a source of innovation (proximity stimulates the circulation of information and skills, thus facilitating the creation of more innovative projects), attraction (the concentration of resources in a local area offers international visibility, as well as the emergence of agglomeration externalities), territorial embeddedness (the competitiveness of the local firms is tied to their local roots, thanks to the presence of skilled individuals and profitable partnerships as described in the district literature).

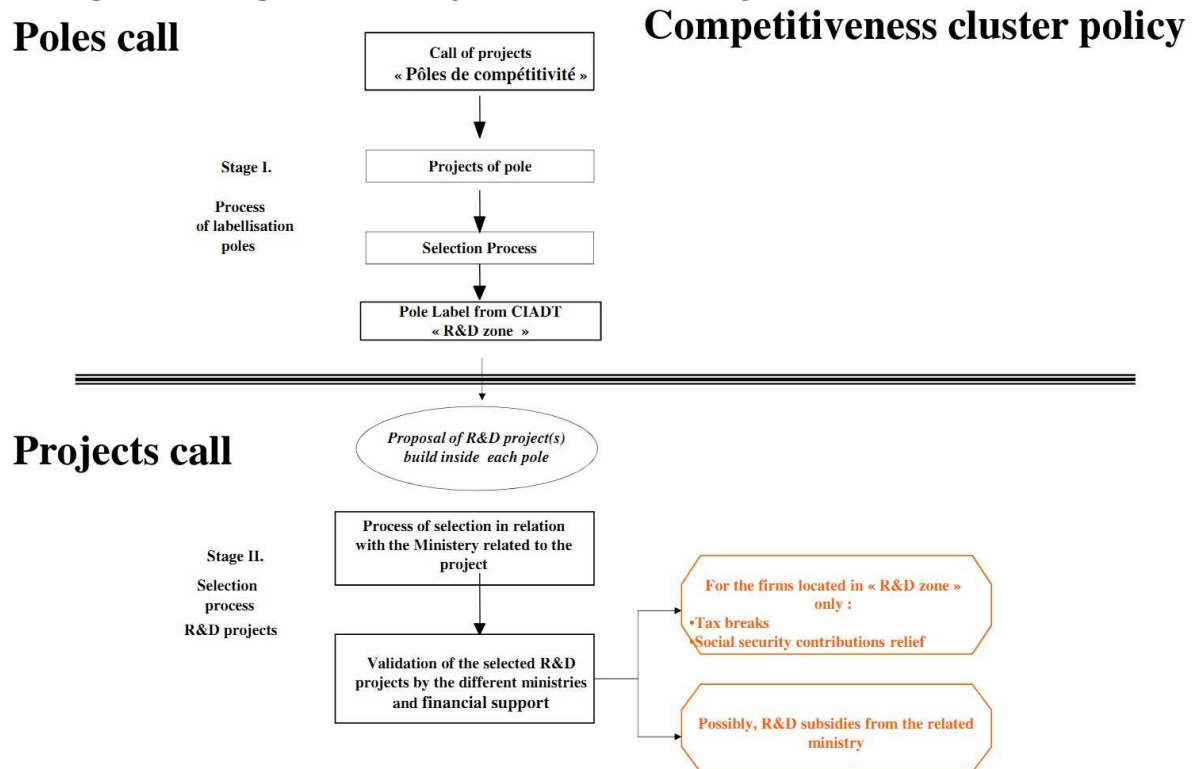
The territory is the basic element of the reform of the State and of the policies implemented in the French economy. More and more the definition of the territory is increasingly defined as being endogenously established through a project – usually of socio-economic development – designed and implemented by the stakeholders. Its frontiers do not exist prior to projects; they are drawn with the project itself, which marks out its geographical perimeter and the scope of its actions. The projects related to Competitiveness Clusters result from

public-private agreements and their governance is led by the private economic actors, firms and professional associations.

Clearly, processes and benefits related to proximity are not deterministically ensured; there is even a risk to repeat errors of the past, particularly in the area of technopolis projects, and still believe that merely gathering of different resources in the same place will be sufficient to foster development or innovation. The key factors of success (Castells and Hall, 1994), which have been repetitively proved to be ineffective in the academic literature (Garnsey and Longhi, 2004) are still used by some policymakers.

In order to cope with this important issue, the CC policy has been designed as a two steps process. Indeed, the gain of the label ‘CC’ is not an end in itself, on the contrary. A ‘Cluster’ has been defined as a “forum for the creation of collective projects” between companies, research centers and academic institutions. The ultimate end is thus to create incentives to improve the interactions between the actors in the definition and emergence of R&D and innovation processes, to feed a process of collective learning (Keeble *et al.*, 1998) in order to build specific local capabilities. The process designing the policy is illustrated in the Figure 2.

Figure 2. Design of the Competitive Cluster Policy



This design is very demanding for the territories. In fact, the CIADT has launched the call for projects. If a project of cluster is selected, it gains the label “CC”, and is eligible to the different budgets opened for these clusters. But this does not mean it is automatically granted with a budget: the R&D projects are specifically financed, and not clusters as such. They have thus to organize their governance in order to foster the definition of R&D projects by the members (two firms at least, and a research institution). The governance of the cluster has to stimulate and select projects, which will compete in the calls for R&D project launched twice a year by the government. The selection of the financed R&D projects is thus ultimately made by national institutions.⁵ The financing process is thus a multi step process. The weak number

⁵ An Inter-ministerial Working Group headed by the CIADT and the Ministry of Finance, and combining the different ministries and public organisations that provide support to the competitiveness clusters. R&D projects can also compete in other national (National Research Agency for instance) or regional calls, where they have always to face a selection process.

of projects presented and the failure of some CC show that some actors had perhaps not clearly understood the nature of the policy. The gain of the CC label is not a guarantee of financing, it is only a prerequisite to compete for subsidies. It is not also permanent, it will have to be confirmed through the evaluation of the policy after a period of 4 years. The fact that the basic element is the R&D project is an incentive to share, to learn collectively, and change the local nature the interactions

2.1. First phase: the 'Competitiveness Cluster' call

The first step of the process is related to the call for obtaining the label 'CC'. The CIADT has defined a threefold assessment in its selection process:

at the regional level under the responsibility of the regional prefects,
by an inter-ministerial working group composed of the various ministries concerned by the project,
by an independent audit carried out by a group of qualified persons in the fields of business, research and higher education.

The role of the Prefects, the State representatives at the local level, embodies the top-down pressures put on economic stakeholders of the regions to position and to define their development projects themselves. Surprisingly, as this was a first experience of extended collective response of local stakeholders on a common project of development, the call has been a real success.

At the meeting of 12 July 2005, the Council attributed the label of Competitiveness Cluster to 66 local areas out of a total of 105 applications. The 5 July 2007, the CIADT labeled in a second round 5 new Competitiveness Clusters out of 18 applications. These last projects seem to be evidence some evolution in the policy, on which we will turn. The number of CC has thus increased to 71, which is a very important number if they are effectively location gathering significant interrelated resources of economic activities and R&D in specific areas.

In fact, the selection process has been very loose. From the 97 existing LSP previously described, 12 have been labeled as CC (*Cosmetic Valley*, *Arve Industries* or *Micromécanique...*, out of 21 applications), 14 have been integrated in a CC (like *Plastics Vallée d'Oyonnax* for the CC *Plasturgie* or *Mecanic Vallée* in Aquitaine for the CC *Aerospace Valley*) (Perrat, 2007). As will be discussed below, major discrepancies observed in the capacity of CC to implement R&D projects are probably related to this selection process: LPS are more oriented towards production than towards R&D cooperation, and have indeed difficulties to meet the new requirements of the policy. Given the large number of CC labelled, one can expect that a lot of them have in fact the socio-economic structure of LPS.

The CIADT also decided that a general evaluation of the policy should be held by the end 2008. In order to measure the fulfillment of the projects, the evolution of the partnerships, the quality of the governance, the number of R&D projects realized. The confirmation of the label CC requires that effective results are achieved. The evaluation process, run by independent experts, intends to provide a guaranty of efficiency and robustness of the innovative capacities of the clusters, which is pivotal regarding attractiveness.

The evaluation of the first phase of the policy, done in 2008, measured different targets: existence of a governance structure, number of R&D projects..., most of them quantitative. The support framework was confirmed for the policy; the total support for the CC set at €1.5 billion over 3 years (2006-2008) was considered as having fulfilled the objectives,⁶ and was renewed for a new period.

Regarding the clusters individually, the conclusions of the evaluation access that:

⁶ The budget of €1.5 billion set by the CIADT on 12 July 2005 and dedicated to the competitiveness clusters had three sources: the Ministries through an interministerial fund (830 M€), the Research Agencies (National Research Agency [ANR], Agency for Industrial Innovation [AII], OSEO [Innovation agency for the SMEs], 'Caisse des Dépôts et Consignation) (520 M€) and Tax breaks (160 M€). Additional funding is expected from the regional and local governments.

39 CC achieved the objectives assigned;

19 only partly achieved these objectives, and showed possibilities of improving their results;

13 were invited to reform deeply to meet the requirements of the policy.

In fact, 6 of these 13 were finally cancelled, and 6 new created in 2010 after a call dedicated to environmental technologies and green business.

This has resulted in the map of the CC in 2011 given in Annex 1.

After this evaluation process and the resulting affirmation of the overall success of the policy, the policy has been renewed over the period 2008–2012. A new phase of evaluation has been implemented, and a report has recently been given (BearingPoint France SAS – Erdyn – Technopolis Group-ITD, 2012) which deals with the overall policy, not the individual clusters. The evaluation is based on a survey conducted in the different clusters, on a declarative way. The conclusions are positive and in January 2013, the French government has confirmed a third period of financing of the CC policy. In this new period, the clusters should affirm the ambition to diffuse the innovative products or services born from their activity to markets, to turn to more economic opportunities, and to better participate to the efforts of reindustrialization.

2.2. Second phase: the projects call

Competitiveness Clusters are not an end in themselves. They are defined as “forums for the creation of collective projects” between companies, research centers and academic institutions. Their ultimate end is thus to create incentives to improve the interactions between the actors in the definition and emergence of R&D and innovation processes, to feed a process of collective learning (Keeble *et al.*, 1998) in order to build specific local capabilities. R&D projects are thus their core activity and constitute the main factor of their so called competitiveness.

The projects should involve all the local potential actors in a process of growing innovative capabilities and competitiveness of the firms, especially the SMEs which face traditionally in France a problem of access to the R&D resources. The project should also boost the research institutes through public – private partnerships. Indeed they have to include at least two firms and a research institute of the cluster in order to pretend to a label from the CC. These projects are the engine of the working of the clusters and thus the pre-conditions of the success of this policy. The subsidies to the CC are not pre-determined, they flow from the R&D projects that have been selected in the different calls, as it will be shown. The CIADT has also defined non-R&D projects (training, property investments, ICT infrastructures, monitoring economic developments, promoting local areas, international expansion, etc.), as their definition and implementation could be pivotal to the competitiveness of the firms and the local area’s economic development. In the second period of the policy (2009–2012) platforms dedicated to innovation complementing the projects are also financed through specific call, and the strategic governance of the clusters reinforced. The relations between different complementary CC are also encouraged.

Indeed, a basic element regarding the CC is their governance. Following the criteria imposed by the CIADT, each cluster is represented and led by its own legal entity, but this entity is required to give preference to industrial, scientific and academic stakeholders in its governance structure. The local governments concerned with the project are also duly represented, but in opposition to the whole history of regional development in France – a top-down process of industrial decentralization led by the government policy – the projects of clusters are defined by the firms and the governance of the clusters is also defined and run by the firms, according the specificities of each local context. The government is involved through the incentive process it has defined, through a selection process, and though the top-down pressures and organizational role exerted by its local representatives when necessary. The governance legal entities are usually organized in association.

The main missions of the association are to define and implement the overall development project of the cluster, and to foster, evaluate and select (“label”) R&D projects submitted for public financing dedicated to the CC. In addition the governance structures will have to organize relations with other national or international clusters, in order to insert the local system into global innovative networks and to allow the firms to benefit from the externalities related to these networks. The organization of this governance has been an important effort asked to the firms, as they had to invent the whole processes and rules. The criteria to evaluate and select projects had to be drawn and important resources invested in the governance process; this important implication has prevented SMEs to be totally involved, insofar as they often ignore the mechanisms and opportunities offered. In contrast with the “*Grands Programmes*” or the Defense budget, usually large firms oriented, all the actors are theoretically eligible to the R&D budgets; specific actions should be defined to associate small firms, but this aspect of the policy is certainly the more difficult to implement.

3. The Competitiveness Cluster diversity

Different interpretations can be given to the huge number of clusters labeled by the CIADT. Given the described multi-step process, this huge number can mean that the CIADT’s will was to give a chance to a maximum number of areas that have mobilized resources to build cluster projects. The definition and selection of R&D projects will ultimately determine the public financing. Again, the CC label is not an end in itself; it is the beginning of the process. The very low number of R&D projects proposed for financing by many clusters shows that they had not necessarily understood the basic process at stake in the new industrial policy; or that the installed configuration of the interactions implies some time to invent and implement efficient local governance.

Another particularity of the French case is the different nature of the CC defined by the CIADT. Basically, there are three main categories:

Global (or worldwide) competitiveness clusters: six CC were labeled ‘global’ in the first call: *Aerospace Valley* (Midi-Pyrénées), *Lyonbiopole* (Rhône-Alpes), *Medicen Paris Region* (Paris), *Minalogic* (Rhône-Alpes), *Secured Communication Solutions* (Provence Alpes Côte d’Azur), *System@tic* (Paris). A new has been added, on *Finance*, located in Paris. Aeronautics, ICT and biotechnology are the main technological domains.

CC with global vocation: ten clusters have this label.

National oriented CC: fifty were labeled national in the first call, four were added in July 2007. Six projects failed and were replaced in 2010.

The clusters are related to different main domains of activity: Aeronautics-Space-Defense, Sea /Bio-agriculture, Food-processing / Transport (auto, train), Logistic /Biotechnology, Health / Energy / ICT, Image, Networks / Chemical, Plasturgy, Textile / Mechanics, Microtechnics / Risk / Finance.

4. The geography of the Competitiveness Clusters: clusters?

The CC have a precise geographical definition. Indeed they are defined by a project of development and a precise mapping: the attribution of the subsidies and tax-breaks are conditioned by the localization in precise areas, whose definition is given in their decree of creation. According to the CIADT, “the local concentration of research and innovation activities in one or more domains is often a key success factor for competitiveness clusters”. To encourage such concentrations and the search for critical mass, the access to subsidies for firms participating to collaborative projects is conditioned by the location in a R&D area (“Zone R&D”) defined for each labeled project.

Different unusual characteristics of the territory follow: it can be considered as endogenous, discontinuous, and ‘slice made’.

The maps presented in Annex 2 and 3 highlight these characteristics. They represent the R&D zones of two CC, ‘*Secure Communication Solutions*’ (SCS) and ‘*Risques*’, both located in the south east of France. The first for instance is based on resources located in two high tech locations, the parks of Sophia-Antipolis and Roussey, and related to ICT, ‘from microelectronics to usages’. As shown in the map, these two locations are roughly distant of 200 kms –the relevant distance is thus related to the technological domain, and not to geography–, but the areas are not restricted to the parks, they include large parts of the department (NUTS 3 areas) they belong, around the cities of Nice and Marseille (certainly also a way to involve as many public institutions and local governments as in the new policy, and prevent its rejection). The perimeter of the cluster is *endogenous*, defined with the CC itself, and it is *discontinuous*; the continuity is related to technological resources, to competences associated to the project, and not to physical geography. This is true for all the labeled CC.

Another characteristic of the CC refers to a ‘*slice made*’ view of territories. As show by the maps in the Annex 3 and 4, the two CC roughly lie on the same physical territories. They are based on different technological resources and knowledge bases the territory holds. For instance six different CC are belonging to the technopolis of Sophia Antipolis. This multiplicity of independent CC, of ‘slices’, associated to the same territory can lead to a complex view of its governance, and a difficulty to apprehend the strategy implemented locally.

Recent evolutions following the evaluations ordered by the government address this geographical dimension. The ‘zone R&D’ have been for instance one of the scarce element of criticism raised by the last evaluation (BearingPoint France SAS – Erdyn – Technopolis Group-ITD, 2012). But more importantly the second phase of the policy (2009-2012) supports cooperation between the different Competitiveness Clusters, and indirectly a policy of ‘*filières*’. More and more R&D projects associate different Clusters.⁷ The policy gets back to the ‘networked polycentrism’ advocated by the DATAR since 2000 (Guigou, 2000).

5. Outcomes of the policy

The R&D projects are basically the core of the activity of the CC. They concretize the whole targets of the new industrial policy, to foster innovation and performance on the one hand, to foster the interactions and interdependences between the firms, the research or training institutions at the local level on the other hand. The incentives implemented, subsidies and tax breaks, are conditioned by the involvement in labeled R&D projects, i.e. projects gathering at least two firms and one research institution and selected by the governance structure to be involved in the calls for R&D projects launched twice a year by the government for the labeled CC.

The government created an Interministerial Fund (FUI⁸) to endow the calls and finance the projects. According to the CIADT, “the fund’s purpose is to support applied research products targeting the development of products or services with the potential to be launched on the market in the short to medium term”. The FUI has a budget of €720 million for each period of

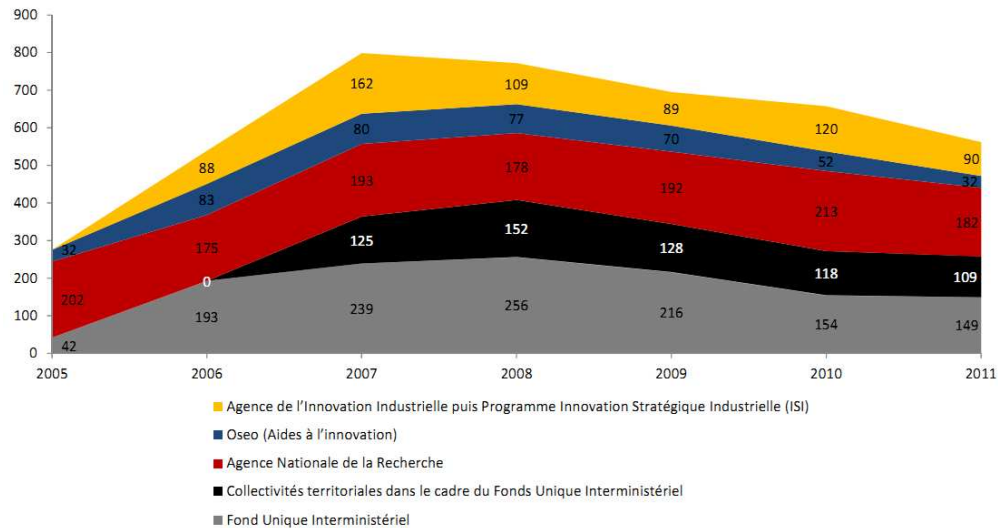
⁷ Some steps towards this policy had already been made. The Competitiveness Cluster Elastopôle for instance, in the rubber industry, associates areas belonging to the Centre, Auvergne, Ile de France, Pays de la Loire, that is four NUTS 2 regions. Clearly, the whole national resources of the rubber industry have been associated to the definition of the competitiveness cluster. In this last call the CIADT has also acknowledged interest for three new projects, but has considered that their international visibility and their critical mass were not enough important to allow a competitiveness cluster label. The CIADT has thus associated these projects to existing poles. For instance on *Open Source* (Ile de France) has been associated to the global pole “*System@tic*”, another on *Tropical Health* (Guyanne) associated to *Lyon Biopole* (Rhône Alpes).

⁸ FUI: Fonds Unique Interministériel.

implementation of the policy; its contributors are the Ministries of Industry, Defence, Infrastructures, Agriculture, Health and Spatial Planning. The Fund is complemented by the budget of the Research Agencies up to €1500million.⁹

The following Figure 3 gives evolution of the overall budget of the policy over the different periods of implementation

Figure 3. Competitiveness Cluster policy: sources of financing

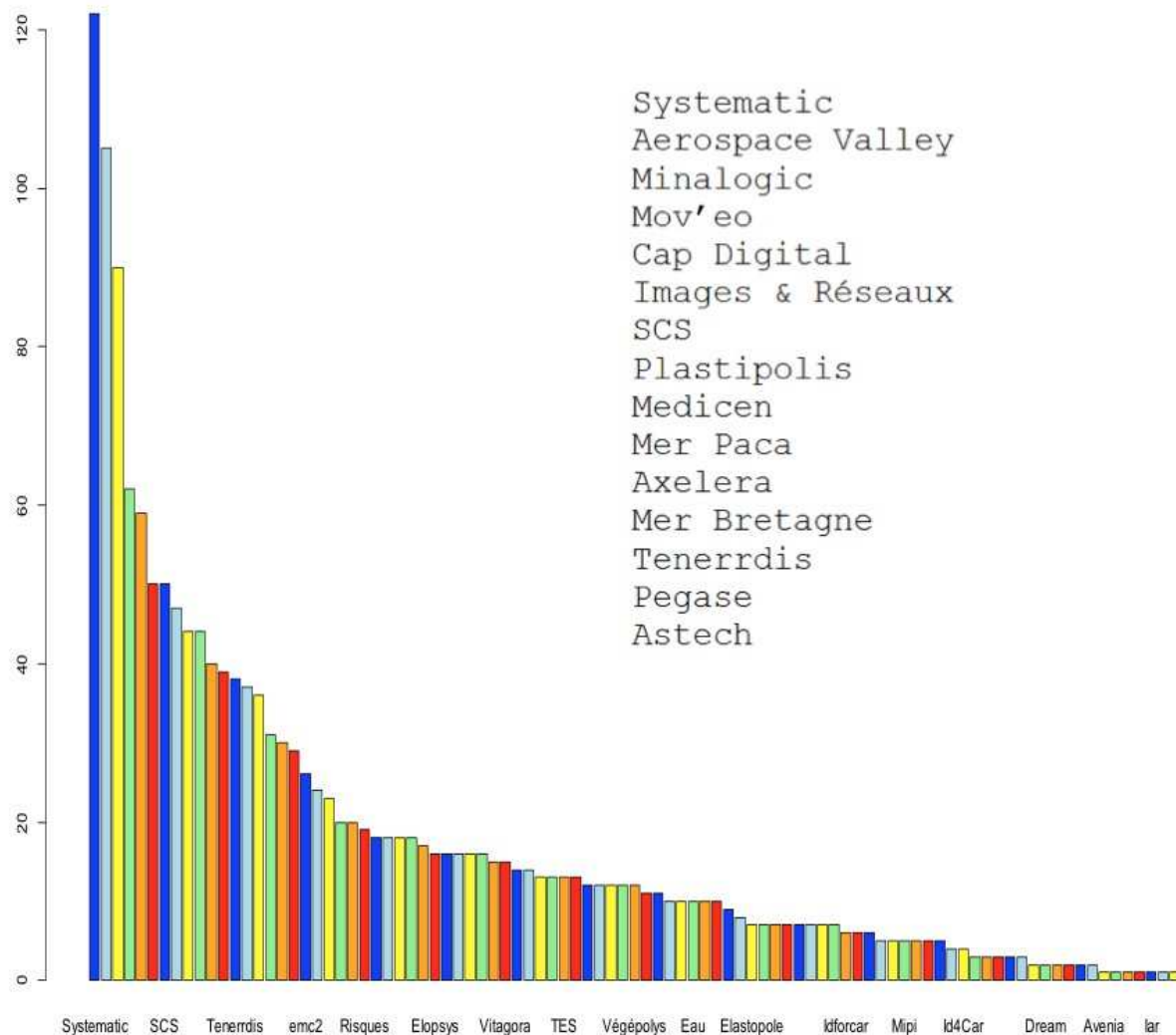


Source: BearingPoint France SAS – Erdyn – Technopolis Group-ITD, 2012.

Fourteen calls have already been launched by the Fund and 1659 participations of the different CC in the selected R&D projects can be noticed (the fifteenth has been launched; in addition to the R&D projects, some other devices inducing cooperation are financed and object of a call, platforms for instance, see <http://competitivite.gouv.fr/>). This result summarizing the different calls has two faces: a positive, as a significant number of projects has been implemented, and a negative, most of the CC belong on few or no projects at all, that is to say, they do not have any economic reality and so they can be considered as vacant spaces regarding R&D. And one can expect, the distribution of the R&D projects among the CC is heavy tailed, some CC concentrate most of the FUI projects.

Figure 4. Distribution of the Competitiveness Clusters participation in the R&D projects

⁹ The Competitiveness Cluster is important as an incentive to cooperation and involvement of the SMEs and research institutes in the process of innovation, even if limited in terms of budget. In 2004 for instance, the internal expenditure of R&D ('DIRD') in France amounted to €35.5 billion, and the Defense subsidies to private R&D amounted to €1.7 billion (DEEP, 2006); these amounts of expenditure and subsidies are roughly steadily repeated each year. The 'Programme national investissements d'avenir' ('Invest for the Future' Program), an important element of the public policy amounts to €35 billion, including 17 for supports to industry and innovation.



Source: Authors calculation from <http://competitivite.gouv.fr/>.

As emphasized, there is an important discrepancy between the number of projects financed and the number of CC concerned (the outcomes in terms of budget would certainly increase these discrepancies);

The five best ranked CC represent 27% of the participations in projects, the ten best ranked 41%.

The Global CC amount to 24% of the participations.

Some CC which are not 'global' are very efficient, like *Move'o* (62), *Cap Digital* (59), *Images&Réseaux* (50), *Pégase*, recently created (37).

The proportion is the same when considering alternative mode of financing, in particular ANR¹⁰ (National Research Agency) which is focused on basic research, but also regions, as the performing firms regarding FUI belong to the healthier regions and the most innovative eco-systems. The less successful CC are usually made of clusters of SMEs in traditional industries, sometimes former LPS, without enough resources dedicated to R&D and without links with research. These clusters have not benefited from their CC label, as the social capital and the resources to be dedicated to the creation of cooperative R&D projects were lacking.

6. 'Grappes' and Regional Clusters

The 'Grappes' (literally Clusters) of firms have been created to complement the CC policy and provide a solution in terms of public policy focusing in innovation to these territories unsuited to cooperation dedicated to R&D. A 'Grappe' is defined as a network of firms

¹⁰ ANR: Agence Nationale de la Recherche.

consisting mainly of SMEs and VSEs, deeply rooted locally, often on the same 'filière' of production or the same sector, mobilized on a common strategy or project of development. A total of 126 'Grappes' (over 450 applications) were labeled after two calls for proposals launched in October 2009 (42 clusters selected) and June 2010 (84 clusters selected). The success shows that such a device was necessary; previous existing LPS have been labeled under this new policy. This device is certainly more adapted to local context of SMEs or even large firms specialized in production and services than the Competitiveness Cluster policy.

The 'Grappes' provide practical services to firms, especially to help them to establish innovative strategies in their markets and to improve their competitiveness. They promote cooperation with other public and private stakeholders, including training, management of employment and skills and innovation.

While CC are focused on R&D and technological innovation, 'Grappes' are focusing on actions closer to the market. However, some 'Grappes' develop partnerships with CC in areas of similar or complementary activities, to implement the technological innovations of the later on markets. A budget of about €24 million is provided for the 'Grappes' policy, supplemented by support of the 'Caisse des Dépôts' and OSEO, as well as local governments. Support to each cluster is of €200,000 in average.

CC and 'Grappes' are thus the two complementary devices promoted by the government and the DATAR to feed innovation in the French economy.

This cluster oriented policy is finally supplemented by the Regions, which are in France also in charge of economic development. All have developed their own strategy of regional clusters, very different from one region to the other, as the local economic and technological contexts are also various. Nevertheless, the regional clusters generally intend to promote the economic attractiveness of territories, to contribute to the emergence of 'filières', even in their international dimension, to create interactions between education, research and firms. The label they provide guarantee a long term financial and technical support, as well as an increased visibility for the local context.

The PACA region for instance has been very active in policies dedicated to economic development, innovation, ICT. A regional cluster policy developed by the region is the 'PRIDES'¹¹ (Regional Clusters for Innovation and Economic Development), dedicated to innovation in a broad sense (technological, business, organizational...), uses of ICT, international development, 'RSE'; 29 PRIDES have been created, closely linked with the other cluster policies. For instance, most of the Competitiveness Clusters are also PRIDES, with the same governance and strategy. This is also the case for 'Grappes'. This complementarity allows avoiding dispersion of the resources. Some PRIDES are also standing alone, and contribute to the economic development and innovative strength of the region. An evaluation process is also run to assess the efficiency of the PRIDES and the achievement of their commitments.

7. Concluding remarks

"Cluster" and "Competitiveness" are two of the most popular buzz words, to take words Fagerberg (1996) has used in another context. Since the 1990s, and after the E.U. regional policies guidelines in Europe, the cluster concept has become highly fashionable among regional scientists and policy-makers alike.

In France, the two words have even been merged to name the policy, considered as the New Industrial policy. The budgets allocated are not very important regarding public funds for R&D in France, but they represent incentives to build local R&D cooperative projects associating large and small firms, institutes of research, and tools to foster externalities, innovation and growth. The policy has been in fact effective in high-tech clusters, and less

¹¹ PRIDES: Pôles Régionaux d'Innovation et de Développement Economique et Solidaire.

adapted to more traditional ones. Complementary tools have been designed, at the national or regional levels, to remedy to this unbalance, but still based on clusters. The ambition of this cluster strategy was in fact to change the organisational design of the innovation process in France, from top-down policy implemented in large firms, towards endogenous interactions and interdependences of local heterogeneous actors, large firms, SMEs, universities and research institutes.

Developments are at work after a first phase of the policy. Incentives are sent for the involvement of different CC in each of the R&D projects, to benefit from potential CC complementarities, and effectively, more and more R&D projects associate different clusters. The policy seems to achieve in some sense the old 'networked polycentrism' strategy designed in 2000 by the DATAR to benefit both from concentration, externalities and complementarities, to foster national wealth from efficient clusters.

This process is finally indirectly deepened by the other programs implemented by the government, exceeding highly the cluster policies in terms of budget. For instance, the 'Investments for the future' program, which represents €35 billion, is not explicitly cluster oriented; it is dedicated to universities, research, ICT, industry, SMEs, and allocated through different calls. The objective is always to finance 'excellence' (for instance, Labex for laboratory of excellence, Equipex for equipment of excellence...). The "Investments for the Future" program tools have come to fit into territories where CC were already an important element of the regional dynamics, illustrating a deep anchorage of the policies for innovation in the same metropolitan areas. The "Investments for the Future" program also aims to broaden the strategic view of CC and in this regard, is consistent with the second phase of the policy (2009-2012). The competitiveness clusters received under that program an additional contribution of €500 million and there are many of them involved in the calls for projects of the program. The projects financed shown in Figure 6(Annex) mould the location of the worldwide Competitiveness Clusters, and increase the concentration of the resources dedicated to R&D. In January 2013 the government has officially stated that the "Investments for the Future" will be mobilized to support the industrialization process of the CC projects when deciding to pursue the CC policy over a new period.

In fact, these programs are all based on the same observation: the attractiveness of territories and the economic revival require a high degree of co-operation between various actors in both institutional and private sectors. But if they globally aim at the same objective, the question is whether these government measures will be adequate, sufficient or whether additional ones will be needed. In other words, the issue of the consistency between the CC policy and the "Investments for the Future" program remains. The interactive mechanisms are rather complex because they involve different administrative levels, the presence of various institutions and organizations, the use of several programs. Now, the difficulty lies in how lasting regional economic cooperation can be achieved without making the incentive system more complicated.

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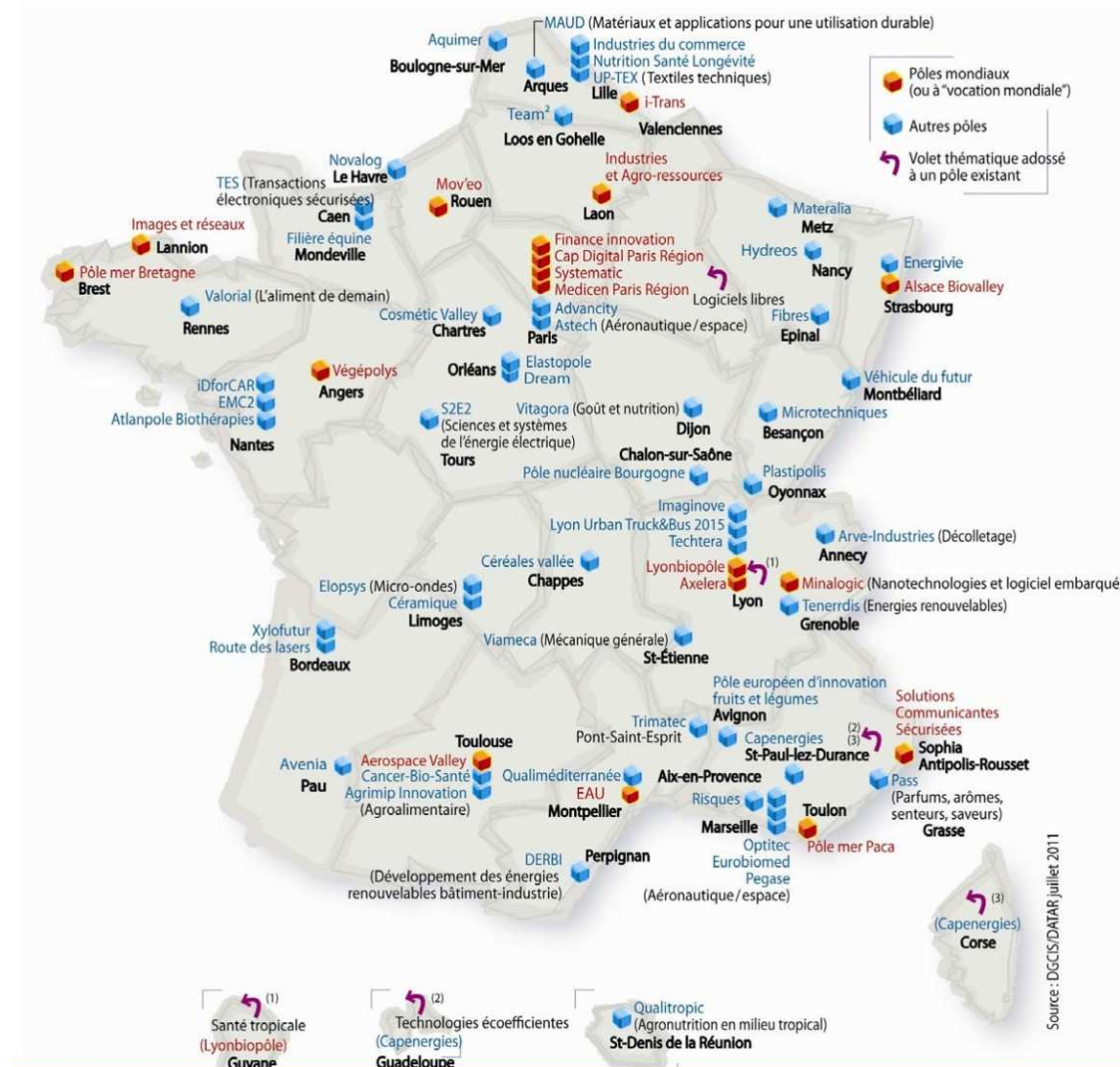
Official web sites on the Competitiveness Clusters:

<http://www.competitivite.gouv.fr>

<http://www.diact.gouv.fr>

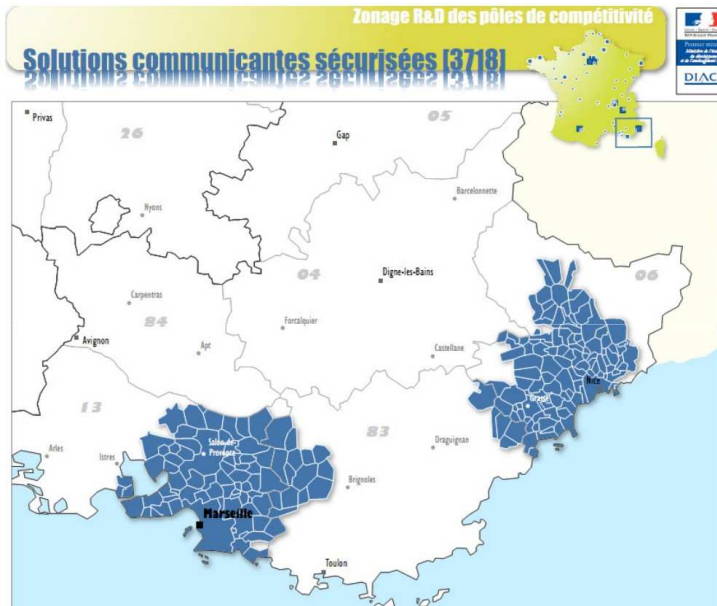
http://www.colloc.minefi.gouv.fr/colo_struct_gest_loca/gest_loca/rapp_etud_2/ciad.html

Figure 5. Competitiveness Clusters

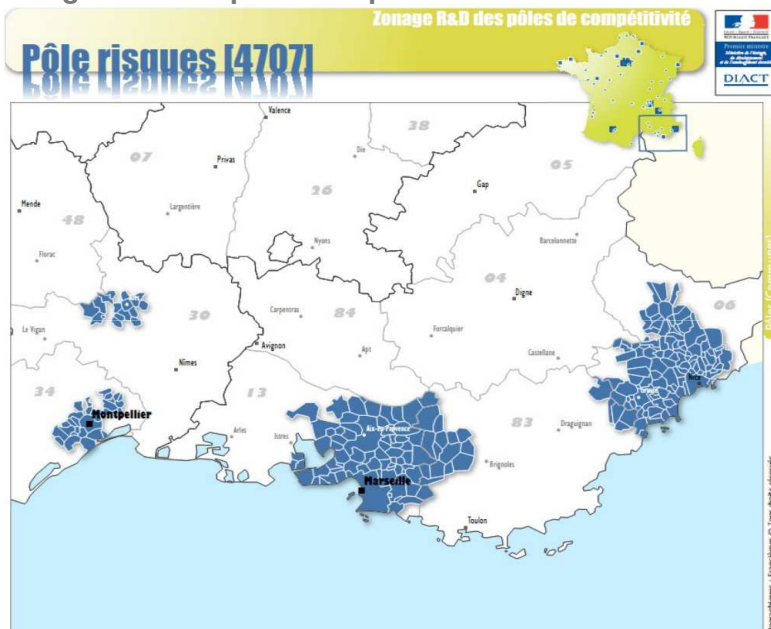


Source: DGCIS DATAR juillet 2011.

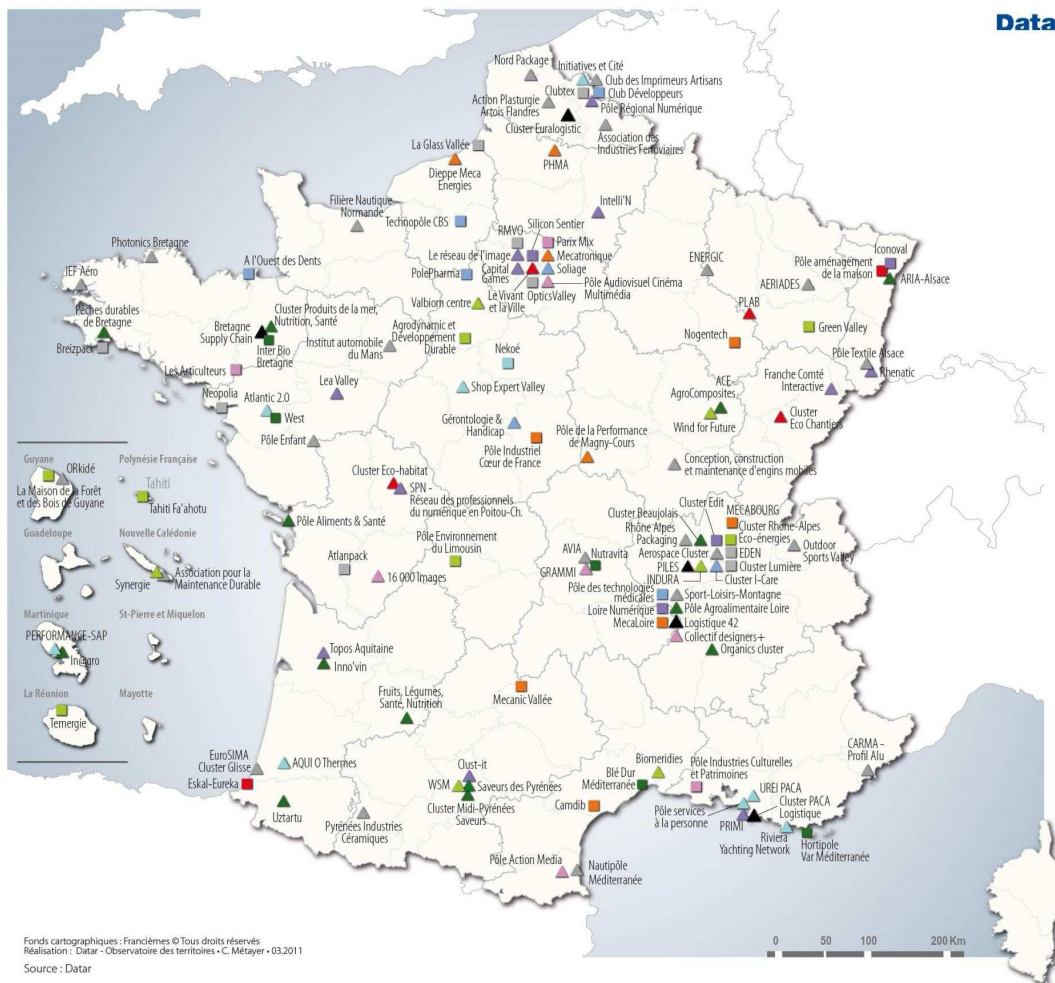
Figure 6. SCS Competitiveness Cluster R&D zone



Source: <http://competitivite.gouv.fr/>
 Figure 7. 'Risques' Competitiveness Cluster R&D zone



Source: <http://competitivite.gouv.fr/>
 Figure 8. 'Grappes' Policy



Secteurs d'activité

- | | |
|---|---|
|  Agriculture, agroalimentaire et pêche |  Industries créatives et culturelles |
|  Construction et habitat |  Industries de la santé |
|  Industries diverses |  Mécanique et métallurgie |
|  Economie numérique |  Services |
|  Ecotechnologies, bio-ressources, gestion de l'eau |  Logistique |

-  Grappes d'entreprises lauréates de la 1^{ère} vague d'appel à projets
 Grappes d'entreprises lauréates de la 2^{ème} vague d'appel à projets



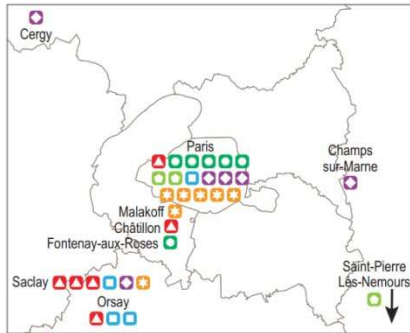
Source: DATAR.
Figure 9. 'Investments for the future' program

Investissements d'avenir Équipements d'excellence

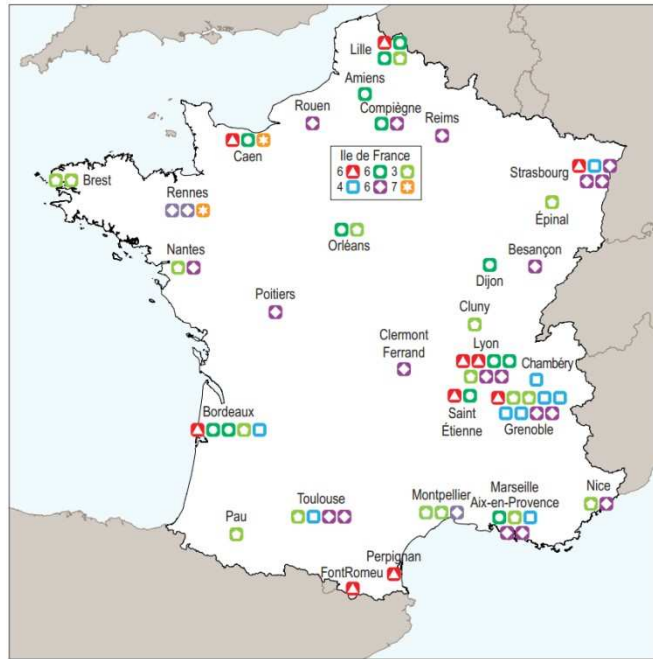
Localisation des sites concernés par les Équipements d'excellence du programme Investissements d'avenir (premier appel à projets)

Secteur du projet

-  Énergie
-  Biologie - Santé
-  Sciences de l'environnement
-  Nanotechnologies
-  Sciences informatiques
-  Sciences humaines et sociales



 Source : MESR - CGI
 Réalisation : ministère de l'Enseignement supérieur et de la Recherche



janvier 2011

Source: MESR. CGI.