



EUROPEAN CLUSTER  
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# Country factsheet

France

An initiative of the European Union





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# 01

## Introduction and economic policy context



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# 1. Introduction and economic policy context



This document presents an overview of the cluster policy in France. Given the importance to contextualise the cluster policies (and related) analysed in the factsheets, a comprehensive outlook of the country in socioeconomic terms can be consulted in the [European Semester Country Report 2023 for France](#).

The European Semester was an instrument introduced to coordinate the EU Member States economic policies and address the economic challenges faced by the EU. Its goals are “to ensure sound public finances, to prevent excessive macroeconomic imbalances in the EU, to support structural reforms to create more jobs and growth, and to boost investment”. Thus, it focuses on the following areas: business environment; financial and fiscal stability; green economy; public administration; labour market and skills; and, social protection and cohesion. Chapter 4.2 provides an overview on how France’s cluster policy can help to tackle the economic policy challenges identified in the European Semester country recommendations.

Because of the COVID-19 pandemic, European as well as global economies have been subject to severe output losses. In response, policymakers at EU and national level have acted decisively and at short notice to make available very significant financial resources, notably through the Recovery and Resilience Facility, to tackle the threat of a prolonged downturn. [National recovery and resilience plans](#) have been drafted in each Member State to ensure a recovery that addresses the challenges identified in the European Semester. In France, clusters have acted as a partner in drafting the plan and setting the strategic priorities<sup>1</sup> although they are not directly mentioned in the National recovery and resilience plan. In addition to the COVID-19 pandemic, the ongoing Russian military aggression against Ukraine has also taken its toll on EU companies and industrial ecosystems, highlighting the significance of policy efforts in supporting SMEs and clusters.

The [ERDF Partnership Agreement 2021-2027](#) in France refers to clusters. To boost the creation of jobs in SMEs, clusters are supported as intermediary structure to strengthen research and innovation capacities in France by organising and animating group of enterprises and regional sectors. France’s [Operational Programmes \(OP\) for the Cohesion policy funds 2021-2027](#) vary significantly. 15 out of 19 regions mention clusters (or pôles de compétitivité) as beneficiaries under at least one funding category, while four do not mention them at all. Mostly, clusters are included as potential beneficiaries under the funding streams of Research and Innovation (10) and Competitiveness of SMEs (8), both under the policy objective 1 “a Smarter Europe”. Ranking third, funding for Resource Management under policy objective 2 “a Greener Europe” includes clusters in four OPs.

In the following, a succinct overview of the cluster policy in France will be provided. The structure of this factsheet generally encompasses:

- 1) an overview of the industrial ecosystems and cluster landscape in France,
- 2) an overview of the national cluster policy,
- 3) an assessment of the state of play of the national cluster policy and its capacity to tackle wider economic policy challenges mentioned in the European Semester Reports.

<sup>1</sup> ECCP (2020). Clusters in the National Recovery Plans: France. Available at: <https://clustercollaboration.eu/news/clusters-national-recovery-plans-france> (last access 27.01.2023).



# 02

## Industrial ecosystems and cluster landscape



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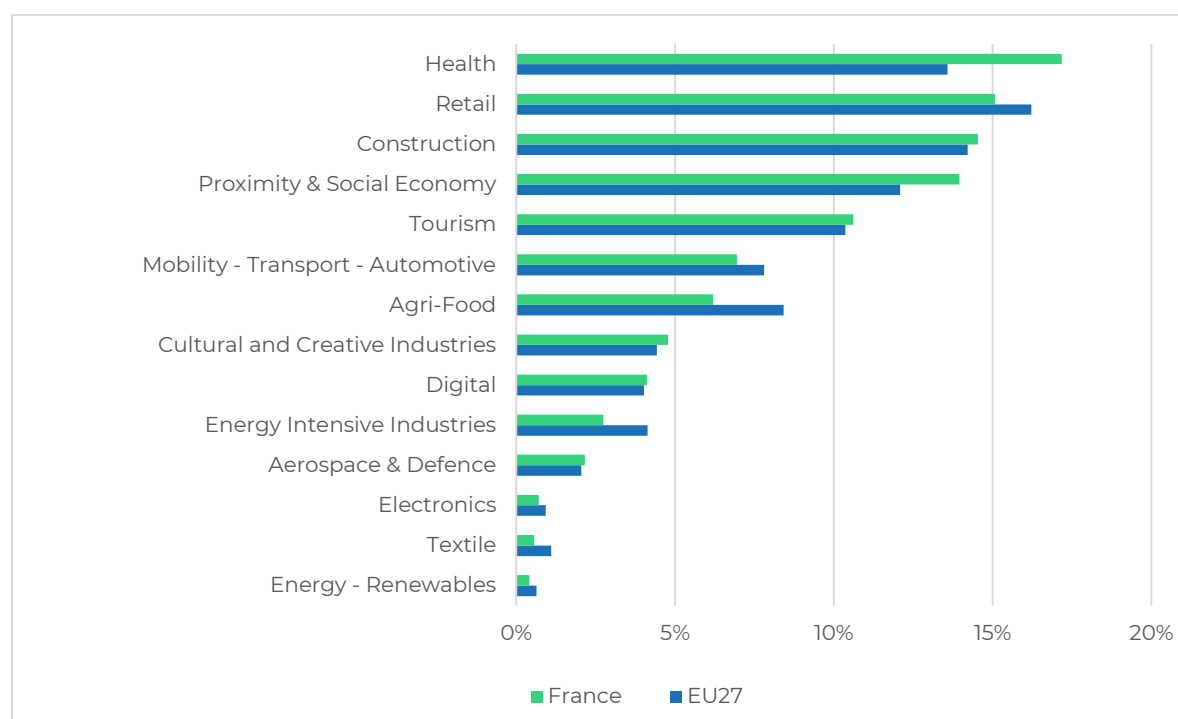
## 2. Industrial ecosystems and cluster landscape

### 2.1 Employment in the 14 industrial ecosystems

As part of its Industrial Strategy (March 2020), the European Commission has identified 14 industrial ecosystems that encompass all players operating in a value chain.<sup>2</sup> The classification of the 14 industrial ecosystems have been calculated by aggregating NACE 2-digit activities, following the methodology established in the European Commission.<sup>3</sup> This means that the data provided below can differ from other publications by the European Commission that do not consider the industrial ecosystem classification.

In the following figure, the employment share of France and the EU27 in each industrial ecosystem is shown relative to the number of employed persons in the 14 industrial ecosystems. The ecosystems are ordered, from top to bottom, according to the amount of employment in the country. When the bar for the country is higher than that of the EU27, it indicates that the country is more specialised in that ecosystem.

**Figure 1: Employment across the ecosystems**



Source: ECCP (2023), own elaboration from Eurostat.

In France, the three strongest ecosystems by employment in absolute terms are Health, Retail and Construction. Of these, however, only Health has an employment share significantly above the EU27 level. Construction is slightly above the average while Retail is below. The only other ecosystem with a clearly above-average employment share in France is Proximity & Social Economy. By contrast, it shows below-average employment shares for Agri-food, Energy Intensive Industries, and Mobility-Transport-Automotive, Electronics, Textile, and Energy-

<sup>2</sup> see here for more information <https://clustercollaboration.eu/in-focus/industrial-ecosystems> (last access 09.01.2024).

<sup>3</sup> see European Commission (2022): Annual Single Market Report, SWD(2022).

Renewables. Slightly above average are further Tourism, Cultural and Creative Industries, Digital, and Aerospace & Defence.

## 2.2 Regional agglomerations

Economic activity is not equally distributed across regions in the EU but tends to agglomerate in certain places. In this context, an Agglomeration is defined as the concentration of a certain industry, sector or ecosystem in a certain geographical area. The following section provides an analysis of, first, the sectoral agglomerations and, second, the ecosystem agglomerations in the regions. Agglomerations are operationalised through the employment-based Location Quotients (LQ), measuring the relative specialisation of one region compared to the EU level, as well as the employment size.

If the LQ for a given activity-region combination is above 1.5, it is considered an agglomeration, and if the activity accounts for at least 1 % of total employment in the region, it is considered a regionally relevant agglomeration.<sup>4</sup> The following tables show the total number of regionally relevant agglomerations in each region in the country and identifies the top five most specialised of these agglomerations. The first table focuses on the 88 NACE 2-digit activities or sectors, totalling 77 in the country, while the second table is based on the 14 ecosystems, which total 9 in the country.

**Table 1: Number of regionally relevant sectoral agglomerations and Top 5 agglomerations by region (NACE)**

Region	# of aggl.	Agglomeration 1	Agglomeration 2	Agglomeration 3	Agglomeration 4	Agglomeration 5
<b>FR1: Île-de-France</b>	9	J58 - Publishing activities	M70 - Activities of head offices	N80 – Security and investigation activities	M73 – Advertising and market research	K64 – Financial services
<b>FRB: Centre-Val de Loire</b>	2	N78 - Employment activities	Q88 - Social work without accommodation	-	-	-
<b>FRC: Burgundy-Franche-Comté</b>	2	N78 - Employment activities	Q88 - Social work without accommodation	-	-	-
<b>FRD: Normandy</b>	2	N78 - Employment activities	Q88 - Social work without accommodation	-	-	-
<b>FRE: Hauts-de-France</b>	3	Q88 - Social work without accommodation	N78 - Employment activities	N82 – Office administrative, office support, etc.	-	-
<b>FRF: Grand Est</b>	2	Q88 - Social work without accommodation	N78 - Employment activities	-	-	-
<b>FRG: Loire Region</b>	3	N78 - Employment activities	C10 - Manuf. of food products	Q88 - Social work without accommodation	-	-
<b>FRH: Brittany</b>	3	C10 - Manuf. of food products	N78 - Employment activities	Q88 - Social work without accommodation	-	-
<b>FRI: New Aquitaine</b>	2	Q88 - Social work without accommodation	N78 - Employment activities	-	-	-
<b>FRJ: Occitania</b>	3	C30 – Manuf. of other transport equipment	Q88 - Social work without accommodation	M71 – Architectural and engineering activities	-	-
<b>FRK: Auvergne-Rhône-Alpes</b>	2	N78 - Employment activities	Q88 - Social work without accommodation	-	-	-

<sup>4</sup> for more information on the methodology please see the methodology note: <https://clustercollaboration.eu/in-focus/policy-acceleration/country-factsheets-on-cluster-policies-and-programmes> (last access 09.01.2023).



<b>FRL: Provence-Alpes-Côte d'Azur</b>	2	Q88 - Social work without accommodation	L68 - Real estate activities	-	-	-
<b>FRM: Corsica</b>	4	I55 - Accommodation	F43 - Specialised construction act.	Q88 - Social work without accommodation	H53 - Postal and courier activities	-
<b>FRY1: Guadeloupe</b>	5	Q88 - Social work without accommodation	N80 - Security and investigation activities	Q87 - Residential care activities	O84 - Public administration and defence	Q86 - Human health activities
<b>FRY2: Martinique</b>	6	Q88 - Social work without accommodation	N80 - Security and investigation activities	Q87 - Residential care activities	R93 - Sport, amusement, recreational	S94 - Activities of membership organisations
<b>FRY3: French Guiana</b>	8	N80 - Security and investigation activities	Q88 - Social work without accommodation	Q87 - Residential care activities	O84 - Public administration and defence	Q86 - Human health activities
<b>FRY4: Réunion</b>	6	Q88 - Social work without accommodation	R93 - Sport, amusement, recreational	S94 - Activities of membership organisations	N80 - Security and investigation activities	Q87 - Residential care activities
<b>FRY5: Mayotte</b>	13	N77 - Rental and leasing activities	R93 - Sport, amusement, recreational	S94 - Activities of membership organisations	N80 - Security and investigation activities	R90 - Creative, arts and entertainment

Source: ECCP (2023), own elaboration from Eurostat.

As mentioned at the beginning of this Chapter, the NACE 2-digit activities have been aggregated to the 14 EU industrial ecosystems following the methodology established by the European Commission. Table 2 provides an overview of the regional distribution of industrial ecosystem agglomerations.

Overall, there are fewer numbers of ecosystem agglomerations compared to the regionally relevant sectoral agglomerations by NACE sectors. This more concentrated agglomeration can at least partially be linked to the methodology of measurement of the 14 industrial ecosystems. Additionally, particularly the ecosystem agglomerations shown in Table 2 are skewed towards small regions with a less diversified economy due to the statistical methodology.

Looking at the results, the capital region of Île-de-France (FR1) shows an ecosystem agglomeration in Cultural and Creative Industries which relates to the NACE agglomerations in publishing activities (J58) and advertising and market research (M73). The ecosystem agglomerations shown for the French overseas regions are the methodological relicts of small, little diversified regional economies. Compared to Germany (11) and Italy (20), metropolitan France shows therefore a markedly smaller number of industrial ecosystem agglomerations (2).

Nonetheless, the agglomerations further underline the relative strength of France in the industrial ecosystem outlined before (see Figure 1). For instance, the NACE agglomeration “Publishing activities” of Île-de-France corresponds with its ecosystem agglomeration in “Cultural and Creative Industries”. Likewise, the strength of France in the industrial ecosystem “Health” is further underlined by the nodes presented in Table 2 as well as the NACE agglomerations in Table 1 (e.g., the sectors “Q88 - Social work without accommodation”).

**Table 2: Regionally relevant ecosystem agglomerations**

Region	Number of ecosystem agglomerations	Agglomeration 1	Agglomeration 2
<b>FR1: Île-de-France</b>	2	Digital	Cultural and Creative Industries
<b>FRB: Centre-Val de Loire</b>	0	-	-
<b>FRC: Burgundy-Franche-Comté</b>	0	-	-
<b>FRD: Normandy</b>	0	-	-
<b>FRE: Hauts-de-France</b>	0	-	-
<b>FRF: Grand Est</b>	0	-	-

<b>FRG: Loire Region</b>	0	-	-
<b>FRH: Brittany</b>	0	-	-
<b>FRI: New Aquitaine</b>	0	-	-
<b>FRJ: Occitania</b>	0	-	-
<b>FRK: Auvergne-Rhône-Alpes</b>	0	-	-
<b>FRL: Provence-Alpes-Côte d'Azur</b>	0	-	-
<b>FRM: Corsica</b>	0	-	-
<b>FRY1: Guadeloupe</b>	1	Health	-
<b>FRY2: Martinique</b>	1	Health	-
<b>FRY3: French Guiana</b>	2	Health	Proximity & Social economy
<b>FRY4: Réunion</b>	1	Health	-
<b>FRY5: Mayotte</b>	2	Proximity & Social economy	Health

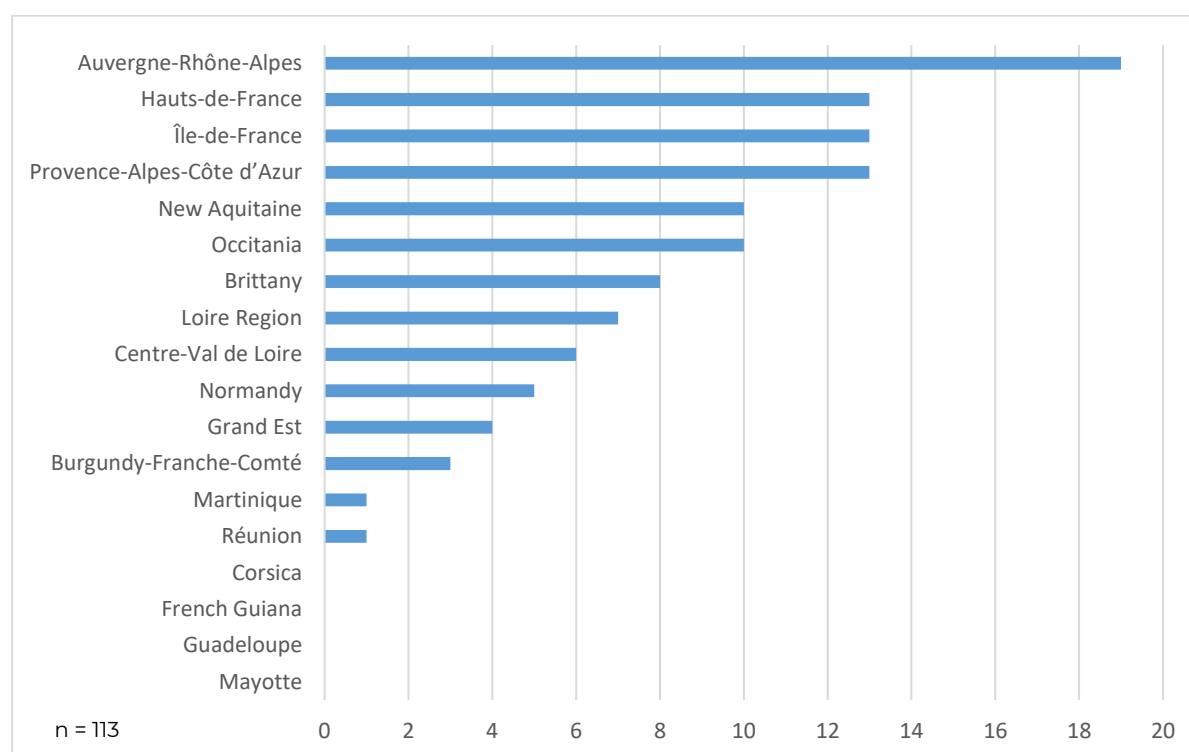
Source: ECCP (2023), own elaboration from Eurostat.

## 2.3 Cluster organisations & interregional cooperation

### Cluster organisations in the regions

There are 113 cluster organisations registered on the ECCP coming from France, 19 of which are located in Auvergne-Rhône-Alpes. 13 cluster organisations are based in Île-de-France, Hauts-de-France and Provence-Alpes-Côte d’Azur each. The following figure shows the presence of cluster organisations in the different regions.

**Figure 2: Cluster organisations profiled on the ECCP**



Source: ECCP (2023). Note: the data for the analysis was extracted on 21/12/2023.

SMEs (73%, EU: 83%) followed by large enterprises (14%, EU: 9%) and research organisations (12%, EU: 8%) constitute the majority of member organisations of French cluster organisations with profiles on the ECCP. From a thematic perspective, these French cluster organisations are operating in the following industrial ecosystems. Since not all cluster organisations on the ECCP provided this information and clusters can operate in multiple ecosystems, the number of cluster organisations with an allocated industrial ecosystem does not correspond to the overall number of cluster organisations in the country. The following list underlines that the French strengths in terms of employment (e.g., in “Health”, “Digital”, “Aerospace & Defence”) that was outlined before is also largely reflected in the French ECCP registered cluster organisations.

- Health (15 cluster organisations)
- Agri-food (15 cluster organisations)
- Aerospace & Defence (14 cluster organisations)
- Digital (12 cluster organisation)
- Renewable Energy (12 cluster organisations)
- Mobility-Transport-Automotive (10 cluster organisations)

- Construction (6 cluster organisations)
- Energy Intensive Industries (6 cluster organisation)
- Textile (4 cluster organisations)
- Electronics (4 cluster organisations)
- Creative & Cultural Industries (2 cluster organisations)
- Tourism (2 cluster organisations)
- Proximity & Social Economy (2 cluster organisations)
- Retail (2 cluster organisations)

### **Interregional cooperation**

In the 2014-2020 funding period<sup>5</sup>, the European Cluster Partnerships and the INNOSUP-1 initiative have been launched by the European Commission to encourage clusters from Europe to intensify collaboration across regions and sectors. French cluster organisations have been involved in 85 consortia of the European Strategic Cluster Partnerships out of which 60 partnerships were focusing on internationalisation (ESCP-4i), 18 partnerships were on cluster management excellence (ESCP-4x) and eight on smart specialisation (ESCP-S3). Consortia partners came from 24 different EU member states (PT, DK, UK, ES, TR, RO, IT, EL, RS, NL, DE, SK, EE, BE, BG, FI, PL, CZ, IE, HU, AT, SE, SI, LT). Moreover, 35 French cluster organisations participated in the INNOSUP-1 initiative with partner organisations coming from 24 countries (IL, ES, DE, PL, DK, NL, CZ, IT, BE, SI, NO, HU, UK, SE, RO, EL, PT, IE, LT, AT, FI, CH, GR, BG).

In the 2021-2027 funding period, the Single Market Programme supports clusters as part of the Joint Cluster Initiatives (Euroclusters) for Europe's recovery. From France, 19 clusters / *pôles de compétitivité* are part of 18 Euroclusters with partners from 21 countries (BE, ES, GR, EE, DE, NL, PL, FI, CZ, AT, RO, IT, SE, DK, NO, PT, LV, HR, BG, HU, LT). Collectively, they cover 12 out of 14 industrial ecosystems. The industrial ecosystems "Textile" and "Proximity and Social Economy" are not covered by those Euroclusters.<sup>6</sup>

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<sup>5</sup> Many of the programmes of the 2014-2020 funding period have been terminated by December 2023. However, the collaborative projects that were funded may continue to operate.

<sup>6</sup> <https://clustercollaboration.eu/euroclusters> (last access 31.03.2023).

# 03

## National cluster policy, programmes and initiatives



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### 3. National cluster policy, programmes and initiatives



In this section we provide an overview of the existing French cluster policy on the national level.

The breakdown is presented in the form of a table, with the first column showcasing information on the aspects which constitute the policy (beginning with 'Policy Objectives', following with 'Policy Focus', etc.). The second column represents the case of the French national cluster policy. As no independent regional cluster policy exists in France, no regional example is showcased. Within the table the text presented in bold (black) depicts standardised categories across country factsheets (56 in total for 2023), which are applied for comparative purposes. This is followed by a complementary descriptive text to provide more insights about the cluster policy in France.


While the Competitiveness Cluster Policy is generally considered a 'national' cluster policy, it is important to note how it is implemented at the regional level in France. Hereby, each region is responsible for managing and coordinating the clusters in its respective territory, as regional agencies standing out as key actors in this process. The involvement of French regions in the Competitiveness Cluster programme is crucial to its success, as it allows for a coordinated and tailored approach to economic development in the distinct regions of France.





**Table 3: Overview of French cluster policy**

Policy type:	National cluster policy
Policy name:	Competitiveness Clusters (Pôles de compétitivité)
<b>POLICY OBJECTIVES</b> 	<p><b>Enhancing the visibility of clusters</b></p> <p><b>Fostering R&amp;D activities, technology development and implementation</b></p> <p><b>Fostering innovation and strengthening innovation ecosystems</b></p> <p><b>Supporting cluster excellence and professionalisation of cluster management</b></p> <p><b>Strengthening the network of cluster organisations/cross-clustering</b></p> <p>France has had a national cluster policy since 2004. The previous phases targeted mainly R&amp;D, industrialisation, and innovation support. The policy is now in its fifth phase (2023-2026), focusing on cluster collaboration, involvement in European projects (Horizon Europe) and active support for green and digital transitions, as well as for industrial sovereignty through innovation.</p> <p>The policy of the Enterprise clusters ("Grappes d'entreprises") initiated in 2009 aimed to complement the Competitiveness clusters policy. It was specifically targeted at micro and small companies in sectors with low R&amp;D uptake, that are less represented in competitiveness clusters (food industry, textile, metallurgy, naval construction, etc.). The Enterprise clusters policy terminated in 2014.</p>
<b>POLICY FOCUS</b> 	<p><b>No specific focus</b></p> <p>The policy does not focus on any specific sector, the main target group is innovative SMEs.</p>




Policy type:	National cluster policy
Policy name:	Competitiveness Clusters (Pôles de compétitivité)
<b>RESPONSIBLE</b>    <b>AUTHORITIES</b>	<p><b>Drafting and implementation</b></p> <p>The Ministry of the Economy and Finance is in charge of drafting and implementing the national cluster policy. Funding used to be provided by the State (via a special fund – the FUI, and its regional antennas - DIRECCTE), the regions and local authorities, and the private sector. The State renewed its support and its contribution to the funding of clusters alongside those of the regions, for the next four years (2023-2026)</p> <p>The State is supported by different partners to support cluster organisations and cluster members:</p> <ul style="list-style-type: none"> <li>• Bpifrance and Caisse des Dépôts, the public investment banks; ANR, the state research agency;</li> <li>• Different regional agencies depending on the regions. The Enterprise clusters policy was initiated by the Ministry of Territorial Development and implemented by the Interministerial Delegation for Territorial Development and Regional Attractiveness (DATAR).</li> </ul> <p>France Clusters is the umbrella organisation supporting all types of cluster organisations, cluster members and territories in the implementation of cluster-related projects. It provides training and advice, mentorship, help for internationalisation, organises events and forums to exchange practices, etc. It is co-financed by the State, public investment banks (Caisse des Dépôts and Banque des Territoires), the European Union and some French regions (Nouvelle Aquitaine and Provence Alpes Côte d'Azur).</p> <p>With the Competitiveness Clusters Policy implemented differently across regions, one can cite exemplary case of Auvergne-Rhône-Alpes. As the framework of the overarching French national cluster policy is drafted and overseen by the Ministry of Economy and Finance, partnerships are fostered with regional and local authorities for the further funding and implementation on a local level.</p> <p>Hereby, the regional agency of Auvergne-Rhône-Alpes ("Clusters et réseaux d'entreprises" Clusters and business networks [in Auvergne- Rhône-Alpes]) is responsible for managing and coordinating said initiative, including the setting up of new financial instruments for different parts of the region. This specifically involves public-private capital funds in the form of providing risk capital to startups, in a bid to ward off foreign investment. A further example is that of seed capital funds which support industrial clusters by metropolises of Lyon and Saint-Étienne.</p> <p>Most of competitiveness clusters are members of AFPC (<i>Association française des pôles de compétitivité</i>, or French competitiveness clusters association). AFPC supports competitiveness clusters excellence and the European visibility of the policy. AFPC is mainly funded by competitiveness clusters but is also supported by the French Ministry for Economy and Finances.</p>



Policy type:		National cluster policy
Policy name:		Competitiveness Clusters (Pôles de compétitivité)
<b>BENEFICIARIES</b> 		<b>SMEs</b> <b>Cluster organisations</b> <b>Research organisations</b> <b>Academic institutions</b> <b>Start-ups</b> <b>Large firms</b> <b>Technology centres</b>
		Funding and technical support channelled through this policy is provided to cluster organisations and their members, i.e. enterprises (large and small), research organisations, academic institutions focused on technology and technology centres, etc.
<b>INSTRUMENTS</b> 	<b>Financial</b>	<b>Support to R&amp;D projects, SMEs becoming cluster members, etc.</b> <b>Application to labelling schemes and similar initiatives</b> <b>Subsidies to hire personnel</b> <b>Subsidies for cluster infrastructure (e.g. offices, equipment)</b>
	<b>Technical assistance</b>	<b>Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence</b> <b>Support for soft skills development: coaching, management training, upskilling/reskilling</b> <b>Support for networking and partnership building (at national and/or international level)</b>



Policy type:		National cluster policy
Policy name:		Competitiveness Clusters (Pôles de compétitivité)
	Explanation	Funding covers administrative spending of cluster organisations (in staff, office space, office supplies, etc.), and project funding for their members. Since 2018, cluster organisations can apply via the Ministry of the Economy for a quality label. As regards non-financial support, the Ministry organises trainings for hard and soft skills such as cybersecurity, supports the clusters' professionalisation and excellence, and provides support to internationalisation to cluster organisation and their members.
<b>HISTORY</b> 	Period	<b>Limited period</b>
	Ending year <i>(for policies with limited period)</i>	2026 (fifth phase of the Competitiveness clusters)
	Starting year	2023 (fifth phase of the Competitiveness clusters)
	Explanation	<p>The first French Competitiveness cluster policy was launched in 2004. Since then, four phases have taken place: phase 1 (2005-2008), phase 2 (2009-2012), phase 3 (2013-2018), phase 4 (2019-2022). The fifth phase was launched on March 28th 2023 and will last until 2026. The policy is evaluated between each phase.</p> <p>The Enterprise clusters Policy initiated 2009 and ended 2015. The policy was evaluated in 2014.</p>




Policy type:		National cluster policy
Policy name:		Competitiveness Clusters (Pôles de compétitivité)
<b>BUDGET</b> 	<b>Overall</b>	Since 2004, the competitiveness cluster policy has given rise to powerful innovation ecosystems covering all regions and strategic industrial sectors. According to a survey carried out by Les Echos, they have fulfilled their mission by involving SMEs in more than 28,000 collaborative R&D projects since their creation. <sup>7</sup>
	<b>Annual</b>	EUR 9 million (only central government; additional financing by regions)
	<b>Source of funding</b>	Private sector, State, and regions. The annual financial support from the State amounts to EUR 9 million annually, notwithstanding the contributions from the regions. The Auvergne-Rhône-Alpes region, for instance, contributed EUR 5 million for 13 clusters over the course of 2023.
<b>POLICY EVALUATION</b> 	<b>Availability</b>	<b>Ex-post</b>
	<b>Results</b>	<p>All previous cluster policies have been evaluated. According to the last evaluation conducted in 2022, there are 55 (54 in 2022, 55 since 2023) competitiveness cluster organisations with 100 to 800 members per cluster (enterprises, research organisations, academic institutions focused on technology and technology centres), 20-50 projects within each cluster. Overall, the Competitiveness clusters policy has had significant positive effects on the auto-financing of R&amp;D activities and employment of the business members of cluster organisations. That is, according to the evaluation SME membership in the clusters has triggered an increase in their private R&amp;D expenditure that is roughly three times the value of the financial support received. Significant effect on turnover was also displayed for SMEs engaging in competitiveness clusters.<sup>8</sup></p> <p>The evaluation of the Enterprise clusters policy, carried out in 2014, was also positive. The policy generated the creation of 261 start-ups, and the implementation of 186 enterprises in the territories. 40% of cluster members had seen an increase in their turnover. However, the level of auto-financing was very low and many of them could not sustain the withdrawal of State funding in 2015.</p>

<sup>7</sup> See: <https://www.lesechos.fr/pme-regions/actualite-pme/les-poles-de-competitivite-ont-draine-plus-de-55-milliards-deuros-en-vingt-ans-2090148>

<sup>8</sup> The main results of this study are available online (in French) : <https://www.entreprises.gouv.fr/fr/etudes-et-statistiques/themas-de-la-dge/poles-de-competitivite-etat-des-lieux-la-fin-de-la-phase-4> (last access 20.09.2023).



Policy type:	National cluster policy
Policy name:	Competitiveness Clusters (Pôles de compétitivité)
<b>POLICY ALIGNMENT WITH THE EU PRIORITIES</b> 	<b>Green economy</b> <b>Digitalisation</b> <b>Resilience</b>

Source: ECCP (2023).



# 04

## State of cluster policy and its role in broader economic policy challenges



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## 4. State of cluster policy and its role in broader economic policy challenges

### 4.1 The state of cluster policy

This section presents an overview on the state of play of French cluster policy in the form of a qualitative assessment across four categories of analysis – policy scope, continuity of cluster policies, evidence of performance, and the range of cluster support instruments. Please refer to the **Annex** for the detailed overview of the categories and the scoring system. The table below presents an overview of the **state of play of French cluster policy** for 2023.

**Table 4: State of play**

France	State of play
<b>POLICY SCOPE</b>	Absence of cluster policy
	Broad policy
	Sectoral policy
	National and/or regional cluster policy
<b>CONTINUITY</b>	No cluster-specific policy available
	Cluster policy established recently
	Cluster policy established between over 2 and 10 years
	Cluster policy established over 10 years ago
<b>EVIDENCE OF PERFORMANCE</b>	No evaluation and / or monitoring available
	Existence of evaluations of past policies
	Existence of monitoring or an ongoing / interim evaluation
	Existence of monitoring and ex-ante or ongoing / interim evaluation
<b>CLUSTER SUPPORT INSTRUMENTS</b>	No instruments for cluster development
	Financial support for cluster development in the broader and / or sectoral policy
	Financial or technical support for cluster development in dedicated cluster policy
	Financial and technical support for cluster development in dedicated cluster policy

Source: ECCP (2023).

The text below provides a **qualitative description** of the state of play of the cluster policy in France.

#### **Policy scope**

The *pôles de compétitivité* as part of the French national cluster policy are development clusters initiated and supported by the French ministry of economic affairs. As such, the programme can be classified a dedicated national cluster policy. The *pôles de compétitivité* are governed by representatives of national institutions located in all regions. In phase V, a total 55 *pôles de*



*compétitivité* received the label and are located across all French regions. They accompany around 2000 innovation projects in which around 7,5 billion euro have been in total invested. The *pôles de compétitivité* interact with the various players in this ecosystem (including players from the French "Investissements d'Avenir" programme, regional innovation and development agencies, public and private incubators, consular networks, and regional and foreign clusters), with a view to co-constructing conditions conducive to innovation. The goal for clusters is to forge cross-partnerships with these players around collaborative R&D projects and to enhance their offer to companies.

### **Continuity**

The first *pôles de compétitivité* were launched in 2004 aiming at the strengthening of industrial potential in France. Since then, the *pôles de compétitivité* have been further evolved. In 2019, the French government decided to further regionalise the policy on the *pôles de compétitivité* meaning that the regions became the main contact for clusters while the state still relies on the *pôles de compétitivité* as important parts on the national and industrial policy. The fourth phase (2019-2022) focused on the European dimension and aimed at bringing more French stakeholders in European collaborative projects, mostly of the Horizon Europe programme. The fifth phase of the *pôles de compétitivité* was launched on March 28th 2023. In the fifth phase, the competitiveness clusters, with their dual national and regional and regional dimension, focus more on their role in the proper coordination of national policies in favour of innovation, ecological and energy planning and reindustrialisation, and the strategic economic development priorities of territorial ecosystems.<sup>9</sup>

### **Evidence of performance**

All previous phases of the French cluster policy have been evaluated. The evaluation of the third and fourth phases of the Competitiveness clusters policy showed positive results. Enterprises belonging to cluster organisations (business cluster members) tend to significantly increase the auto-financing of their R&D activities beyond public funding (3 euros spent for 1 euro of funding received). The policy has had a positive effect on employment among business cluster members. The effect on performance is also positive although less significant: SMEs engaging in a competitiveness cluster export more (+20% in export turnover) than other enterprises, and have a higher turnover (+36%). While enterprises show strong support for the traditional opportunities offered by the clusters, this evaluation also highlighted great interest from their members in the new services they developed. These services include industrial modernisation advices, and support for diversification of production.<sup>10</sup>

### **Cluster support instruments**

The French ministry of economic affairs supports together with regional and local authorities the *pôles de compétitivité* with financial and technical support. On the one hand, they provide grants/financial aid to R&D projects (call for projects) and they give financial support to the governance structures of the *pôles de compétitivité*. On the other hand, since 2018, cluster organisations can apply via the Ministry of the Economy for a quality label. As regards non-financial support, the Ministry organises trainings for hard and soft skills such as cybersecurity, supports the clusters' professionalisation and excellence, and provides support to internationalisation to cluster organisation and their members.

<sup>9</sup> For more information on the fifth phase see: <https://www.entreprises.gouv.fr/files/files/aap/poles-de-competitivite/Cahier-des-charges-phase-V-poles-de-competitivite.pdf> (last accessed on 22.03.2023).



<sup>10</sup> For a more comprehensive overview of evaluations of French cluster policy, see the input paper for the Clusters meet Regions event in Lyon: <https://clustercollaboration.eu/event-calendar/clusters-meet-regions-lyon-france> (last access 20.09.2023).



## 4.2 Cluster policy's potential impact on challenges identified in the European Semester Report

Cluster policy can provide important support to broader economic policy efforts. This section shows how French cluster policy can play a role in addressing the challenges identified in the European Semester Report for the country. To this end, the European Semester 2023 country report for France<sup>11</sup> has been analysed across policy areas relevant to cluster policy. The results point to a series of issues where cluster policy can play an important role in tackling the country's economic challenges.

**Table 5: Contribution of French cluster policy to the challenges identified in the European Semester Reports**

Policy area	Challenges	Cluster policy
<b>INNOVATION</b> 	<ul style="list-style-type: none"> <li>• Stagnating business R&amp;D activity</li> <li>• Declining innovation output (patents)</li> <li>• Geographical concentration of start-ups</li> </ul>	<p>The Competitiveness Clusters programme has the explicit goal to foster R&amp;D activity and collaborations as well as to strengthen the innovation system. Funding is channelled to cluster organisations and their members, such as enterprises (large and small), research organisations, academic institutions focused on technology and technology centres, through the interministerial fund for R&amp;D collaboration projects.</p> <p>Clusters like cap digital work actively to liaise researchers as well as start-ups and SMEs with larger enterprises to drive collaborative R&amp;I activity.<sup>12</sup> In another example, Techtera is offering detailed support for R&amp;I projects in the textile ecosystem.<sup>13</sup></p> <p>More generally, the pôles shall play the role of “factories of the future” to collaboratively transform R&amp;D results into innovative products and services. As investment hubs and through corporate venturing, clusters can support the geographical diversification of startup and innovation activities.</p> <p>Overall, research has found French cluster support to be an effective driver of business R&amp;D expenditure.<sup>14</sup></p>
<b>SKILLS</b> 	<ul style="list-style-type: none"> <li>• Lack of skills</li> <li>• Skill mismatches</li> <li>• Need to improve learning outcomes and align training with labour market</li> </ul>	<p>The Competitiveness Clusters programme includes trainings in hard and soft skills focused mainly on entrepreneurial skills. Research underlines the role of clusters in developing the skills of the workforce and attracting skilled workers to a region.<sup>15</sup></p> <p>The mechanical systems cluster CIMES, for example, is partner in the project Hall32 which promotes industry</p>

<sup>11</sup> European Commission (2023): Country report France. European Semester country reports 2023. Available at: [https://economy-finance.ec.europa.eu/document/download/1b856b46-4444-4598-862e-8d2585e651c5\\_en?filename=FR\\_SWD\\_2023\\_610\\_en.pdf](https://economy-finance.ec.europa.eu/document/download/1b856b46-4444-4598-862e-8d2585e651c5_en?filename=FR_SWD_2023_610_en.pdf)

<sup>12</sup> <https://www.capdigital.com/formation-recherche/s-associer-aux-jeunes-entreprises/> (last access 23.05.2024).

<sup>13</sup> <https://www.techtera.org/services/innovation-rd/> (last access 23.05.2024).

<sup>14</sup> Ben Hassine and Mathieu (2020).

<sup>15</sup> Hsu et al. (2014).



Policy area	Challenges	Cluster policy
	needs	jobs and organises collaborations with schools and universities. <sup>16</sup>
<b>GREEN</b>  <b>TRANSITION</b>	<ul style="list-style-type: none"> <li>Need to accelerate French industry's transition towards net zero through a better regulatory environment, higher investment in cleantech manufacturing and green skill development</li> </ul>	<p>The pôles de compétitivité play an important role in the green transition which is an explicit focus area of the programme's phase V. In 2020, half of the pôles dedicated more than 50% of their collaborative projects to relevant topics, while a third reached even 90%. Out of then 56 pôles de compétitivité (phase IV), some thirty concentrated on thematic priorities linked to the green transition.<sup>17</sup></p> <p>Team2 is lending support to the development and deployment of circular economy solutions.<sup>18</sup> Similarly, axelera is a chemicals cluster with a strong focus on sustainable and circular innovations.<sup>19</sup> The manufacturing cluster EMC2 has orchestrated a common strategy for "eco-responsible industry" among its members.<sup>20</sup></p> <p>Studies<sup>21</sup> show that clusters can play a vital role in the green transition of the economy through a large set of activities ranging from integrative measures like standard-setting, local value-chain building or the cooperation with other clusters; to organising the access to resources, infrastructure, finance and information; to education and awareness building through workshops, knowledge sharing, campaigns and the promotion of green products and services.</p>
<b>DIGITAL</b>  <b>TRANSITION</b>	<ul style="list-style-type: none"> <li>Lack of digitalisation among smaller firms</li> <li>Need for targeted digital skill development, research and investment in infrastructure</li> </ul>	<p>The pôles de compétitivité programme's phase V has an explicit focus on the green and digital transition and offers services and trainings to entrepreneurs covering relevant topics for the digitalisation of SMEs.</p> <p>For example, Pôle SCS is a deeptech cluster that works on a sustainable digital transition across its ecosystem including microelectronics, the internet of things, photonics, cyber security and AI.<sup>22</sup> Also clusters from other fields like the energy cluster Tenerrdis are involved in the digitalisation of their members.<sup>23</sup></p> <p>In general, studies have shown the positive impact of</p>

<sup>16</sup> <https://www.cimes-hub.com/formation-et-competences> (last access 23.05.2024).

<sup>17</sup> <https://www.notre-environnement.gouv.fr/themes/economie/article/les-poles-de-competitivite> (last access 17.01.2024).

<sup>18</sup> <https://www.team2.fr/en/our-offers/building-your-innovation-projects-in-the-circular-economy-and-recycling> (last access 23.05.2024).

<sup>19</sup> <https://www.axelera.org/fr> (last access 23.05.2024).

<sup>20</sup> <https://www.pole-emc2.fr/strategie/> (last access 23.05.2024).

<sup>21</sup> Lis and Mackiewicz (2023); ECCP (2021).

<sup>22</sup> <https://www.pole-scs.org/> (last access 23.05.2024).

<sup>23</sup> <https://espace-membres.tenerrdis.fr/fr/agenda/participez-au-digital-summit-le-rendez-vous-des-acteurs-de-la-digitalisation-des-entreprises-26> (last access 23.05.2024).



Policy area	Challenges	Cluster policy
		clusters promoting practices of digitalisation among SMEs for the development of Internet of Things (IoT) ecosystems where clusters provide support across four domains: organisational and market services; technical services facilitating knowledge sharing, creation, and spillover; application services oriented towards the development of application software; and further ancillary services. <sup>24</sup> Actors organised in clusters then tend to show a higher digital maturity than those outside. <sup>25</sup>
<b>RESILIENCE AND ECONOMIC SECURITY</b> 	<ul style="list-style-type: none"> <li>• Supply chain disruptions</li> <li>• Need to accelerate deployment of renewable energies and related storage technologies</li> </ul>	<p>The goals of reindustrialisation and energy planning that lie at the heart of the current 5th phase of the Competitiveness Clusters programme cover essential aspects of the European resilience agenda. Studies show the important role of clusters in the energy sector for sector-coupling and linking specialised activities, thereby enhancing the resilience of local energy systems.<sup>26</sup> The cluster DERBI, for example, is involved in the energy transition including topics like energy storage and intelligent networks.<sup>27</sup></p> <p>Furthermore, cluster support can be a viable instrument to facilitate the reshoring of manufacturing value chains by creating new homegrown networks and ecosystems. High-tech manufacturing relies on a dense network of collaborating firms, research and training institutions, and public support. A cluster policy approach is well positioned to manage the complex exigencies of (re)creating the interlinking institutional systems and actor networks necessary for, e.g., successful semiconductor production.<sup>28</sup></p> <p>As clusters are central in linking regional economies to global value chains, they are also crucial in efforts to diversify and/or reshore value chains and production networks.<sup>29</sup></p>

Source: ECCP (2023)

<sup>24</sup> European Commission (2019).

<sup>25</sup> Ławicka (2022).

<sup>26</sup> Singh et al. (2023).

<sup>27</sup> <https://pole-derbi.com/> (last access 24.05.2024).

<sup>28</sup> Shivakumar et al. (2023).

<sup>29</sup> De Marchi et al. (eds., 2018).



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## Annex

**Table 6: Analytical framework for the state of cluster policy**

Criterion	Description	Categorical variables
<b>Policy scope</b>	assessment whether the country has a dedicated cluster policy, or cluster creation and/or development is targeted through broader policies, e.g. foreign trade policies, labour and social policies or specific sectoral policies, e.g. industrial policy tourism policies, agriculture policies	<b>absence of cluster policy</b> <b>existence of broader policies</b> <b>existence of specific sectoral policies</b> <b>existence of targeted cluster policies</b>
<b>Continuity of cluster policies</b>	assessment of the duration and experience of the country in carrying out cluster policies. This criterion assesses only existence of targeted cluster policies and not broader policies or sectoral policies	<b>absence of policies supporting cluster development</b> <b>cluster policy established recently (within the last 2 years)</b> <b>cluster policy established between over 2 and 10 years</b> <b>cluster policy established over 10 years ago</b>
<b>Evidence of performance</b>	assessment whether there are evaluations of past and ongoing policies and a monitoring system in place. The existence of monitoring and evaluation mechanisms determines the degree of policy development in the country	<b>no evaluation and / or monitoring available</b> <b>existence of evaluations of past policies, e.g. ex-ante</b> <b>existence of monitoring or an ongoing / interim evaluation</b> <b>existence of monitoring and ex-ante or ongoing / interim evaluation</b>
<b>Cluster Support Instruments</b>	assessment whether the policies provide any instruments to support the policy implementation, being these financial and/or technical support	<b>no instruments for cluster development</b> <b>financial support for cluster development in the broader and / or sectoral policy</b> <b>financial or technical support for cluster development in dedicated cluster policy</b> <b>financial and technical support for cluster development in dedicated cluster policy</b>

Source: ECCP (2023).