



EUROPEAN CLUSTER
COLLABORATION PLATFORM

Country factsheet

Greece

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 Greece. Given its 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 Greece](#).



The European Semester is 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 of this factsheet provides an overview on how Greece’s cluster policy can help to tackle the economic policy challenges identified in the European Semester country recommendations.

As a consequence of the COVID-19 pandemic, European as well as global economies have been subject to severe output losses. In response, policymakers at the 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 Greece, clusters are described in the National recovery and resilience plan aiming to support SMEs in all economic sectors aiming for innovation and internationalisation. 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 Greece makes a clear reference to clusters. Based on the agreement, achieving the policy objectives established in the document includes, among other measures: Measures to increase the average size of companies, promoting collaborations between SMEs through the creation of clusters and/or with larger companies with the aim of facilitating their access to global markets and value chains (internationalisation). In the new Regional Development Corporate Act for the programming period 2021-2027, strengthening of the research and innovation ecosystem emerges as a primary priority, considering the notable opportunities for improvement within the country.

The new Competitiveness Programme, with a planned allocation of 4 billion euros, is dedicated to reinforcing innovation. These funds will be directed towards initiatives promoting the green and digital transformation of small and medium enterprises, bolstering their internationalisation efforts, fostering synergies through clustering, and enhancing the skills of human resources. Within this framework, it supports the creation and development of innovation clusters as part of the specific objective “Developing and strengthening research and innovation capacities and exploiting advanced technologies”. Furthermore, clusters are also mentioned within specific objective 1.3 “Strengthening the sustainable development and competitiveness of SMEs and creating jobs in SMEs, including through productive investment”, in which clusters are encouraged as a means to facilitate access to global value chains.



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

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

02

Industrial ecosystems and cluster landscape



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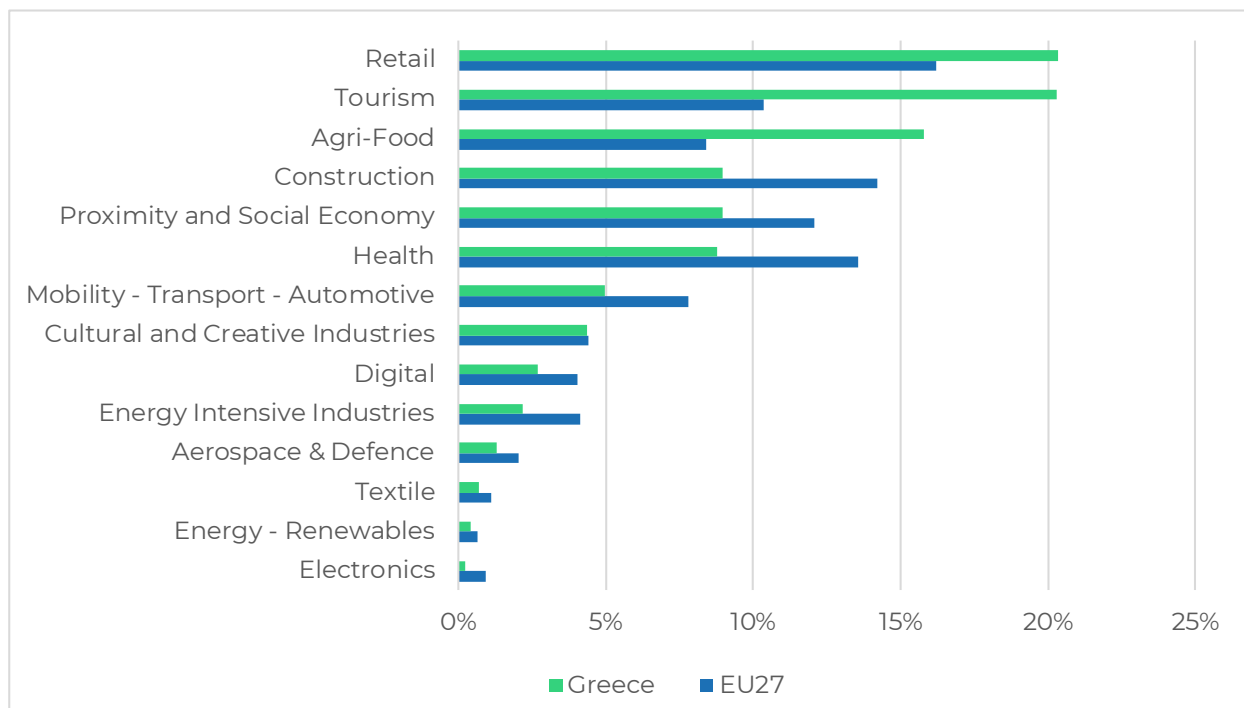


2. Industrial ecosystems and cluster landscape

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.¹ The classification of the 14 industrial ecosystems have been calculated by aggregating NACE 2 -digit activities, following the methodology established by the European Commission.² This means that the data provided below can differ from other publications by the European Commission that do not consider the industrial ecosystem classification.

Figure 1: Employment across the ecosystems



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

In Figure 1, the employment share of Greece 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. The figure indicates that "Retail" and "Tourism" are both the dominant industrial ecosystem, each accounting for approximately 20% of the employment across all ecosystems. They exhibit a much larger share across the ecosystems than in the EU27. "Agri-Food" makes up the third largest ecosystem by employment, accounting for 16% of employment across the ecosystems. The country's specialisation in these particular industrial ecosystems is evident as their shares surpass the respective average of the EU27. The strength of these industries is apparent in the sectoral and

¹ see here for more information <https://clustercollaboration.eu/in-focus/industrial-ecosystems> (last access 07.03.2024).

² see European Commission (2021): Annual Single Market Report, SWD(2021)351.



ecosystem agglomerations that are regionally relevant across the majority of the 13 Greek NUTS 2 regions, as shown in the section below.

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 regionally relevant.³ The following tables show the total number of regionally relevant agglomerations in each region in the country and identify the top five most specialised of these agglomerations. The first table focuses on the 88 NACE 2-digit activities or sectors, totalling 56 in the country, while the second table is based on the 14 ecosystems, which total 27 in the country.

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

Region	# of agglomerations	Agglomeration 1	Agglomeration 2	Agglomeration 3	Agglomeration 4	Agglomeration 5
EL30: Attica	5	J61 - Telecommunications	I56 - Food & beverage services	I55 - Accommodation	G46-Wholesale trade, except of motor vehicles and motorcycles	G47 – Retail trade, except of motor vehicles and motorcycles
EL41: North Aegean	4	I55 - Accommodation	I56 - Food & beverage services	A01 - Crop & animal production	O84 - Public administration and defence	-
EL42: South Aegean	3	I55 - Accommodation	I56 - Food & beverage services	N77 - Rental & leasing	-	-
EL43: Crete	3	I55 - Accommodation	A01 - Crop & animal production	I56 - Food & beverage services	-	-
EL51: East Macedonia, Thrace	4	A01 - Crop & animal production	I56 - Food & beverage services	I55 - Accommodation	O84 - Public administration and defence	-
EL52: Central Macedonia	4	I56 - Food & beverage services	I55 - Accommodation	A01 - Crop & animal production	C10 - Manuf. of food products	-
EL53: West Macedonia	7	B08 - Other mining & quarrying	E36 - Water supply	D35 - Electricity, gas & steam	C14 - Manuf. of wearing apparel	A01 - Crop & animal production
EL54: Epirus	4	A01 - Crop & animal production	I56 - Food & beverage services	I55 - Accommodation	C10 - Manuf. of food products	-
EL61: Thessaly	4	A01 - Crop & animal production	I56 - Food & beverage services	C10 - Manuf. of food products	I55 - Accommodation	-
EL62: Ionian Islands	4	I55 - Accommodation	N77 - Rental & leasing	I56 - Food & beverage services	A01 - Crop & animal production	-
EL63: Western Greece	4	A01 - Crop & animal production	I56 - Food & beverage services	D35 - Electricity, gas & steam	C10 - Manuf. of food products	-

³ 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).



EL64: Central Greece	6	D35 – Electricity, gas, steam and air conditioning	A01 - Crop & animal production	I56 - Food & beverage services	C10 - Manuf. of food products	I55 - Accommodation
EL65: Peloponnese	4	A01 - Crop & animal production	I56 - Food & beverage services	I55 - Accommodation	D35 – Electricity, gas, steam and air conditioning	-

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

As mentioned in 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 ecosystem agglomerations than 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. Upon examination of the results, it becomes apparent that for the majority of Greek regions, the key ecosystem agglomerations in "Tourism" and "Agri-Food" correspond to their NACE sectoral agglomerations in activities such as crop and animal production (A01), food and beverage service activities (I56), and accommodation (I55). The ecosystem agglomeration "Energy-Renewables" in West Macedonia (EL53) and Central Greece (EL64) is mirrored in the NACE agglomeration in electricity, gas, and steam (D35). The ecosystem agglomeration "Retail" in the capital region of Attica (EL30) is reflected in sectoral agglomerations, such as wholesale trade (G46) and retail trade (G47).

Table 2: Regionally relevant ecosystem agglomerations

Region	# of ecosystem agglomerations	Agglomeration 1	Agglomeration 2	Agglomeration 3
EL30: Attica	2	Tourism	Retail	-
EL41: North Aegean	2	Tourism	Agri-Food	-
EL42: South Aegean	1	Tourism	-	-
EL43: Crete	2	Tourism	Agri-Food	-
EL51: East Macedonia, Thrace	2	Agri-Food	Tourism	-
EL52: Central Macedonia	2	Agri-Food	Tourism	-
EL53: West Macedonia	3	Agri-Food	Textile	Energy-Renewables
EL54: Epirus	2	Agri-Food	Tourism	-
EL61: Thessaly	2	Agri-Food	Tourism	-
EL62: Ionian Islands	2	Tourism	Agri-Food	-
EL63: Western Greece	2	Agri-Food	Tourism	-
EL64: Central Greece	3	Agri-Food	Tourism	Energy-Renewables
EL65: Peloponnese	2	Agri-Food	Tourism	-

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

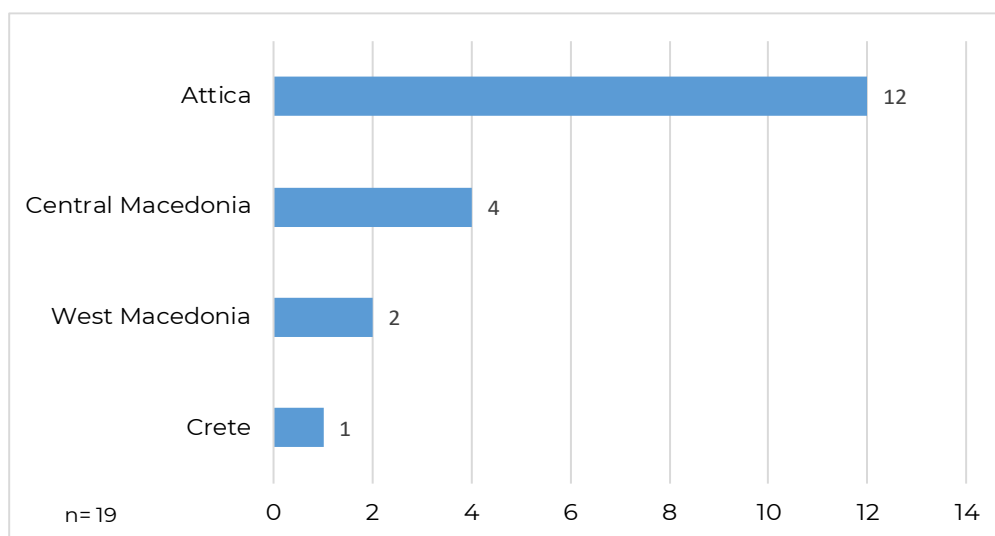


2.3 Cluster organisations & interregional cooperation

Cluster organisations in the regions

There are 19 cluster organisations registered on the ECCP in four of the 13 Greek NUTS2 regions. The majority of these cluster organisations are located in Attica, with a total of 12 cluster organisations. Four registered cluster organisations are based in Central Macedonia, followed by West Macedonia (two cluster organisations) and Crete (one cluster organisation). 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.

The majority of member organisations of Greek cluster organisations with profiles on the ECCP are composed of SMEs (71%, EU: 83%), followed by research organisations (18%, EU: 8%), and large enterprises (11%, EU: 9%). From a thematic perspective, these Greek cluster organisations are operating in the industrial ecosystems as below. Since not all cluster organisations on the ECCP provided this information, the number of cluster organisations with an allocated industrial ecosystem is lower than the overall number of cluster organisations in the country. The list below shows that the cluster organisations profiled on the ECCP cover eight of the 14 industrial ecosystems. However, there is a discrepancy between the ecosystems most frequently covered by Greek cluster organisations and those with a high ecosystem share, namely Retail, Agri-Food and Tourism. Instead, Greek cluster organisations are predominantly active in the Digital, Renewable Energy, Health and Construction ecosystems.

- Digital (5 cluster organisations)
- Renewable Energy (2 cluster organisation)
- Health (2 cluster organisations)
- Construction (2 cluster organisation)
- Aerospace & Defence (1 cluster organisation)
- Energy Intensive Industries (1 cluster organisation)
- Agri-Food (1 cluster organisation)
- Creative & Cultural Industries (1 cluster organisation)



Interregional cooperation

In the 2014-2020 funding period⁴, 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. Greek cluster organisations have been involved in seven consortia of the European Strategic Cluster Partnerships, out of which five partnerships were focusing on internationalisation (ESCP-4i) and two partnerships were on cluster management excellence (ESCP-4x). Consortia partners came from 12 different EU member states (BE, BG, DE, ES, FR, IT, NL, PL, PT, RO, RS, UK). Twelve Greek cluster organisations participated in the INNOSUP-1 initiative with partner organisations coming from 19 countries (AT, BE, DE, DK, ES, FR, HU, IE, IT, LT, LU, NL, NO, PL, PT, RO, RS, SE, UK).

In the 2021-2027 funding period⁵, the Single Market Programme supports clusters as part of the Joint Clusters Initiatives (Euroclusters) for Europe's recovery. Eight cluster organisations are part of eight Euroclusters, along with partners from twelve countries (Belgium, France, Spain, Italy, Lithuania, Hungary, Romania, Czechia, Portugal, Poland, Latvia, and Slovakia). These Euroclusters are B-Resilient, CREATHRIV-EU, EU Rural Tourism, IKAT, MedBan, METASTARS, SUSTAIN, and XBuild-EU. Collectively, they cover nine industrial ecosystems, with the "Tourism" and "Digital" ecosystems, each having two Euroclusters. Other industrial ecosystems that are covered include "Agri-Food," "Cultural and Creative Culture Industries," "Mobility," "Renewables," "Aerospace & Defense," "Textile," and "Digital Industries." Some Euroclusters cover multiple ecosystems, such as MedBan (covering "Tourism," "Mobility-Transport-Automotive," and "Energy-Renewables") and XBuild-EU (covering "Textile," "Digital," and "Construction").⁶

⁴ 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.

⁵ The programmes of the 2014-2020 funding period have ended in December 2023. The funded collaboration projects can continue on alternative funding.

⁶ Assigned Euroclusters to each of the 14 industrial ecosystems is shown on: <https://clustercollaboration.eu/euroclusters> (last access 20.03.2023).

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 Greece cluster policies on a national as well as an example of the regional level cluster policy.

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, third and fourth columns represent the case of Greece's national cluster policies, whilst the fifth column represents an exemplary regional cluster policy in Greece. Please note that the national cluster policies presented in the following table were financed within the framework of the "Competitiveness, Entrepreneurship and Innovation (EPANEK)" of the NSRF 2014-2020. Although cluster support will continue in the Operational programme 2021-2027 (see Chapter 1), no new information has been published thus far (as of March 2024).

Within the table, the text presented in bold (black) depicts standardised categories across country factsheets (56 in total for 2023), which is applied for comparative purposes. This is followed by a complementary descriptive text to provide more insights into the cluster policy in Greece.

Table 3: Overview of Greek cluster policy

Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
POLICY OBJECTIVES 	Strengthening cooperation between companies or industry and RTDI actors Increasing competitiveness and boosting scale up of SMEs Supporting internationalisation activities	Strengthening cooperation between companies or industry and RTDI actors Increasing competitiveness and boosting scale up of SMEs Supporting internationalisation activities	Increasing competitiveness and boosting scale up of SMEs Supporting internationalisation activities Enhancing the visibility of clusters	Strengthening cooperation between companies or industry and RTDI actors Increasing competitiveness and boosting scale up of SMEs Supporting internationalisation activities



Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	Supporting the creation of new cluster organisations Enhancing the visibility of clusters Fostering innovation and strengthening innovation ecosystems Fostering R&D activities, technology development and implementation Strengthening the network of cluster organisations/cross-clustering Promoting entrepreneurship, start-ups and spin-offs Promoting social and sustainable economy and other solidarity-based initiatives Promoting employment and upgrading skills and competences	Supporting the creation of new cluster organisations Enhancing the visibility of clusters Fostering innovation and strengthening innovation ecosystems Fostering R&D activities, technology development and implementation Strengthening the network of cluster organisations/cross-clustering Promoting entrepreneurship, start-ups and spin-offs Promoting social and sustainable economy and other solidarity-based initiatives Promoting employment and upgrading skills and competences	Fostering innovation and strengthening innovation ecosystems Supporting the creation of new cluster organisations Promoting entrepreneurship, start-ups and spin-offs	Supporting the creation of new cluster organisations Enhancing the visibility of clusters Fostering innovation and strengthening innovation ecosystems Fostering R&D activities, technology development and implementation Supporting cluster excellence and professionalisation of cluster management



Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	Supporting cluster excellence and professionalisation of cluster management Enhancing territorial cohesion (through RIS3)	Supporting cluster excellence and professionalisation of cluster management Enhancing territorial cohesion (through RIS3) Supporting the consolidation of existing cluster organisations Supporting the creation of new cluster organisations		
	The General Secretariat for Research and Technology of Greece launched an Action on cluster development under the title "Innovation Clusters". The overall policy includes two different policy actions, first the "Innovation Clusters: 1st Call: Facilitator" and second "Innovation Clusters: 2nd Call – Businesses" following on the previous cluster policy instrument "Creation of Innovation Clusters - A Greek	In 2020, the General Secretariat for Research and Innovation (GSRI), published the policy framework for the creation of Competence Centers. Competence Centers in Greece are clusters that aim to support and promote innovation, entrepreneurship and technical competencies in fundamental pillars of the Greek economy.	The state-aid programme "Strengthening Value Added Chains - Clusters – Networking" was launched on 17 May 2021 by the General Secretariat of Industry and the Special Agency for Managing Co-funding Projects in the Sectors of Manufacturing, Commerce and Consumers' Protection of the Hellenic Ministry for Development and Investments. The main	The action "Promoting entrepreneurship through the creation of cooperative innovation clusters" supports the creation of innovation clusters in the region of Attica. The aim of these innovation clusters is to support innovative processes and / or the development of innovative regional companies, products or services. By developing the clusters in the region of Attica, the attractiveness of the region



Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	Product, A Single Market: The Planet". The ongoing policy action is a continuation of the first relevant invitation to the "Facilitators" and aims at the implementation of business plans in collaborative management schemes, putting an emphasis on the dimension of innovation, helping the interested parties in forming Research and Technology collaborations with other businesses. Possible expected impacts are the creation of job growth, attraction of investment and creation of new knowledge and know-how. In addition, the call "Innovation Clusters (2nd Call - Businesses)" supports the establishment of innovation clusters in multiple priority areas in Greece in order to produce innovative products and services. While the previous call was focused on the actor "Facilitator", who was the Coordinator of each	The Competence Centers will be formed as spinoff companies targeting to the capitalisation of relevant research results and know-how produced by universities or other knowledge-producing public organisations in Greece or abroad. They will be public-private partnership schemes, aiming to bridge the gap between demand and supply of specialized innovation services and technology transfer. An important goal is the training of companies' staff for the acquisition of skills in industry with an emphasis on Industry 4.0.	scope to the programme is strengthening the collaboration between SMEs of the manufacturing and other economic sectors in a value chain's framework of a long-term cooperation. It is addressed to SMEs which are active throughout the value chain of the nine (9) priority areas of the National Strategic Reference Framework (NSRF) 2014-2020 such as Agri-food - Food Industry, Tourism, Cultural & Creative Industries, Materials – Constructions, Information & Communication Technologies, Energy, Supply chain, Environment and Health.	for investment and innovative entrepreneurship will be improved.




Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	cluster and the Leader beneficiary of the call, this new call focuses on the businesses as members of the consortium of each cluster. Each applicant that is interested in participating in a cluster should apply under the umbrella of an already selected 'Facilitator' of the 25 winner-Facilitators and, thus, should integrate in one of the teams of the selected Facilitators/Leaders.			
POLICY FOCUS	Sectoral	Sectoral	Sectoral	Cross-sectoral
	The focus of the policy "Innovation Clusters (2nd Call – Businesses)", as in the "1st Call: Facilitator)", is on the following sectors: agri-food, life sciences, health and medicines, IT, communications and knowledge intensification services, energy, environment and sustainable growth, transport & logistics, construction – raw materials,	The focus of the initiative "Competence Centers" is on the following 5 of the 8 areas of the Smart Specialisation Strategy: information & communication technologies (ICT), raw materials - constructions, health, agricultural sector, energy.	The core of the programme includes SMEs of the manufacturing sector aiming to increase its contribution to the formation of Gross Domestic Product. The interconnection of manufacturing companies with other entities which participate in production	The regional policy aims to support state-of-the-art, innovation clusters in sectors prioritized in the Regional Smart Specialisation Strategy, including Blue Economy and Creative Economy. The reinforcement of export potential, enhancement of regional competitiveness and the support for the creation of



Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	culture – tourism - cultural and creative industry.		value chains is a critical condition for economic development and cohesion.	technology consortia are additional target areas.
RESPONSIBLE AUTHORITIES 	Both drafting & implementation Provides funding Oversees the implementation	Both drafting & implementation Provides funding Oversees the implementation	Both drafting and implementation Provides funding	Both drafting & implementation Provides funding Oversees the implementation
	The responsible authority for this policy is the General Secretariat for Research and Technology of Greece, under the auspices of Ministry of Development and Investments.	The responsible authority for this policy is the General Secretariat for Research and Technology of Greece, under the auspices of Ministry of Development and Investments.	The programme is implemented by the General Secretariat of Industry and the Special Agency for Managing Co-funding Projects in the Sectors of Manufacturing, Commerce and Consumers' Protection of the Hellenic Ministry for Development and Investments. The programme is co-funded by the ERDF and national sources, specifically in the framework of the	The responsible authority to provide funding and oversee implementation was the Attica Prefecture. In particular, the policy instrument was financed by the Operational Programme 2014-2020 ATTICA, through Priority (AP) 03 "Strengthening the competitiveness and internationalisation of SMEs - Improving the attractiveness of the Region of Attica for attracting investment and



Policy type:	National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:	Innovation Clusters (<u>2nd Call – Businesses</u>)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
			Operational Programme “Competitiveness, Entrepreneurship and Innovation (EPANEK)” of the NSRF 2014-2020.	promoting Innovative Entrepreneurship”.
BENEFICIARIES 	SMEs Start-ups Research organisations Academic institutions Large firms Technology centres Cluster organisations NGOs Business associations	SMEs Start-ups Research organisations Academic institutions Large firms Technology centres Cluster organisations NGOs Business associations	SMEs Start-ups	SMEs Start-ups Research organisations Academic institutions Large firms Technology centres Cluster organisations NGOs
	Stakeholders eligible for this call are independent enterprises (SMEs, large enterprises) or research/academic or public authorities/non-profit organisations. These are potential	Beneficiaries of the Action are the legal entities that will be created as "Competence Centers" and each one of the partners / shareholders of the new entity. The “Competence	Eligible for participation are currently existing SMEs or start-ups which should create a cluster or a network containing at least three (3) partners, one of which is	Enterprises/businesses, R&D centres and higher education institutes. In the context of these collaborations, transformation of knowledge into valid business cases was




Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
		beneficiaries for the newly emerging innovation clusters. Technology centres and start-ups are eligible for funding as well, as happened in the first round of the call. This call for proposals has been searching for the businesses. Some of the Coordinators ('Facilitators') have already proposed businesses in their application on the first round, but this is not binding for the second round. It constitutes an open call for all interested parties.	Center” that will be created should have as shareholders/partners at least one (1) research/academic organisation and five (5) companies. Local government bodies or any other legal entity is allowed to be part of the “Competence Center” in case their legal framework allows their participation in the share capital of a company.	prerequisite to be an SME active in the manufacturing sector.	supported, i.e. applied research, synergies between industrial sector, R&D centres and academic actors that fostered the development of products and services, sharing and transportation of technologies, the creation of pilot production lines, etc.
INSTRUMENTS 	Financial	Application to labelling schemes and similar initiatives	Application to labelling schemes and similar initiatives	Funding collaboration initiatives	Funding collaboration initiatives
		Funding collaboration initiatives Support to R&D projects, SMEs becoming cluster members, etc.	Funding collaboration initiatives Support to R&D projects, SMEs becoming cluster members, etc.	Support to R&D projects, SMEs becoming cluster members, etc.	Support to R&D projects, SMEs becoming cluster members, etc. Subsidies for cluster infrastructure (e.g. offices, equipment)



Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
		Subsidies for cluster infrastructure (e.g. offices, equipment) Subsidies to hire personnel Financing networking events Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects) Financing start-ups	Subsidies for cluster infrastructure (e.g. offices, equipment) Subsidies to hire personnel Financing networking events Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects) Financing start-ups		Subsidies to hire personnel Financing networking events Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects) Financing start-ups
	Technical assistance	There are no other aid instruments apart from financial support.	There are no other aid instruments apart from financial support.	There are no other aid instruments apart from financial support.	There are no other aid instruments apart from financial support.
	Explanation	The Action is co-financed by national resources and the European Union and in particular, by the European Regional Development Fund (ERDF) in the framework of the Operational Programme "Competitiveness, Entrepreneurship and Innovation (EPANEK)" of the NSRF 2014 -	Financial support can be used for the joint use of facilities and equipment, exchange of knowledge and expertise, networking, information dissemination and collaboration between enterprises and other organisations/bodies. In	Each potential beneficiary is obliged to submit a business plan of at least EUR 400.000 and at maximum EUR 3 million which should follow a certain funding scheme. The private participation in the funding scheme is at least 25% of business plan's total	The action was co-funded by the ERDF (Grants) and national budget and included only financial instruments.



Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
		2020. The programme funds a large variety of cluster activities such as prototyping, training, participation in joint exhibitions and displaying products. Funding for personnel, as well as infrastructure facilities, is also described.	addition, funding can be allocated towards encouraging transfer of technological solutions and innovations to production processes and/or for the production/supply of products/services resulting from the development, adoption, and diffusion of new technologies to companies, to improve their competitiveness. Staff training for companies, aiming to the acquisition of relevant skills is also funded.	budget and the amount of the grant depends on the thresholds defined for each region of the country and mentioned in the national Regional Aid Map according to the Commission's Guidelines for the Provision of Regional State Aid. The duration of the eligible business plans is 18 months.	
HISTORY 	Period	Limited period	Limited period	Limited period	Limited period
	Ending year (for policies with limited period)	Not announced	Not announced	Not announced	Not announced





Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
	Starting year	2020	2020	2021	2018
	Explanation	The policy was launched in 2020 by the General Secretariat for Research and Technology of Greece. The deadline for submitting an application in the call was from 2020 to 2021. Implementation was supposed to take place in the following 24 months with an extension of 6 months. However, after the third modification of the call in December 2022, the implementation deadline was extended to 31.12.2023.	The policy was launched in 2020 by the General Secretariat for Research and Technology of Greece. The call was closed in November 2020. In 2023, it is currently in the implementation phase following the third modification of the call in January 2023.	The policy was launched in 2021 by the General Secretariat of Industry and the Special Agency for Managing Co-funding Projects in the Sectors of Manufacturing, Commerce and Consumers' Protection of the Hellenic Ministry for Development and Investments. The call was closed in July 2021. The approval of applications was made in January 2022, with an implementation period of 18 months.	The Action was initially launched in October 2018 and had a deadline for applications until January 2019. After six modifications the deadline for applications ended in November 2019.
	Overall	EUR 34.68 million, which are distributed in the Thematic Sectors of Research, Technological Development and	The total amount of the initiative is EUR 22 million, of which EUR 13 million is public	EUR 32 million	EUR 6.6 million



Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (<u>2nd Call – Businesses</u>)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
BUDGET 		Innovation of the National Strategy for Smart Specialisation (RIS3) and in the different regions of the country. EUR 4.5 million are directed to the agri-food sector. It is to be underlined that EUR 5.3 million is dedicated for the first call of the Action on facilitators/leaders of the winning clusters.	expenditure and EUR 9 million is private.		
	Annual	-	-	-	-
	Source of funding	The Government of Greece provides funding through direct grants (the funding is co-financed by national resources and the European Union-in particular ERDF).	The Public Expenditure of the Action is co-financed by National Resources and the European Union and in particular by the European Regional Development Fund (ERDF) under the Operational Programme "Competitiveness, Entrepreneurship and Innovation (EPANEK)" of the NSRF 2014-2020	The programme is co-funded by ERDF and national sources, specifically by NSRF 2014-2020, Operational Programme "Competitiveness, Entrepreneurship, Innovation" and scopes to enhance economies of scale and vertical cooperation among the participating Small and Medium Enterprises (SMEs).	The action is financed by the regional Operational Programme 2014-2020 ATTICA ,and co-financed by the European Regional Development Fund (ERDF).



Policy type:		National cluster policy	National cluster policy	National cluster policy	Regional cluster policy (Example of Attica Region)
Policy name:		Innovation Clusters (2nd Call – Businesses)	Competence Centers	Strengthening Value Added Chains – Clusters – Networking	Promoting entrepreneurship through the creation of cooperative innovation clusters in Attica Region
POLICY EVALUATION 	Availability	No policy evaluation	No policy evaluation	No policy evaluation	No policy evaluation
	Results	No policy evaluation has been identified for this programme.	No policy evaluation has been identified for this programme.	No policy evaluation has been identified for this programme.	No policy evaluation has been identified for this programme.
POLICY ALIGNMENT WITH THE EU PRIORITIES 		Green economy Digitalisation Resilience	Green economy Digitalisation Resilience	Green economy Digitalisation Resilience	Green economy Digitalisation Resilience

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 Greece 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. The table below presents an overview of the **state of play for Greece** for 2023.

Table 4: State of play

Greece	State of play
POLICY SCOPE	Absence of cluster policy
	Broad policy
	Sectoral policy
	National and/or regional cluster policy
CONTINUITY	No cluster policy available
	Cluster policy established recently
	Cluster policy established between over 2 and 10 years
	Cluster policy established over 10 years ago
EVIDENCE OF PERFORMANCE	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
CLUSTER SUPPORT INSTRUMENTS	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).

Policy scope

There are obstacles hindering networking among Greek enterprises. Firstly, the majority of businesses in Greece are of very small scale, often family-owned, operating primarily at a local level, lacking the necessary organisational capacity, infrastructure, and expertise to effectively engage in structured networks. Second, there exists an insufficient level of cooperation, largely left to the discretion of individual network participants, with many businesses persisting in “traditional” modes of operation



characterised by risk aversion, a localized focus, and limited external engagement. Hence, Greek enterprises exhibit a low degree of innovation, a crucial factor for fostering collaboration and networking, underscoring the need for innovation enhancement in the business landscape. Also, there is a delayed response to competitive challenges, alongside a pressing need to embrace modern technologies, including IT and communications, as well as innovations in production and management processes.

Given these obstacles, the Greek Government is committed to establishing initiatives and programs aimed at augmenting the average size of Greek companies and fostering collaborations among SMEs, such as the creation of clusters, as well as partnerships with larger companies. The objective is to facilitate their entry into global markets and value chains. Greece's performance in clustering significantly falls behind the EU average, both in terms of the number of recorded clusters/networks per country and the level of complementarity and synergy achieved by existing clusters/networks.

In recent years Greek policy has aimed to support state-of-the-art innovation clusters in knowledge-intensive, export-oriented technology sectors under the auspices of the General Secretariat for Research and Technology of the Hellenic Ministry of Development. Within the scope of the Operational Programme "Competitiveness, Entrepreneurship and Innovation (EPANEK)" of the NSRF 2014-2020, the national cluster policy in place was "Innovation Clusters", while at regional level only Attica had a similar programme under implementation. Last, it is important to mention that in 2020, the General Secretariat for Research and Innovation (GSRI) published the policy framework for the creation of "Competence Centers" that support innovative partnerships between the public and private sectors that function as clusters in key sectors of the Greek economy. Cluster policy is becoming a key enabler for the Greek economy and the current action is significantly larger in funding than the national programme on innovation clusters which ran between 2011 and 2015. Cluster support is also ensured in the Operational Programme 2021-2027, although no new information has been published yet (as of March 2024).

Continuity

National programmes have been running since mid-2000 in Greece but with limited effectiveness of funded interventions and low level of participation from potential actors. The most effective policies are also the most recent: (i) a national level programme that was implemented between 2011 and 2015 which aimed at supporting the creation of innovative clusters in Greece, and (ii) the ongoing national action that started (a) in 2019 as a first call and selected 25 project leaders/"facilitators" and (b) in 2020 as a second call for the businesses/beneficiaries of each cluster under the projects of the winning leaders. At regional level, only one relevant policy was identified in the Attica Region which aims at promoting entrepreneurship through the creation of cooperative innovation clusters and is under implementation.

Considering the Greek cluster ecosystem, the Hellenic Technology Clusters Initiative (HTCI), known as Corallia, is a technology cluster that has a significant role at national level, bringing together innovative concepts and companies of different shapes and sizes, academia and research laboratories. Today, it coordinates three highly specialized technology clusters in Greece with more than 160 members, the gi-Cluster (Recreational and Creative Technologies & Applications), the mi-Cluster (Nano / Microelectronics Systems & Applications), the si-Cluster (Space Technologies Applications). It is the first cluster organisation established in Greece. More recent examples, that have recently been developed under the call of "Innovation Clusters" is the Hellenic Digital Health Cluster and under "Competence Centers" the first Energy Competence Center in Greece, a cluster that aims to support and promote innovation, entrepreneurship and technical competencies among enterprises that are operating in the energy sector.



Evidence of performance

At the moment, no evaluation is available for the Greece cluster platform. However, it is important to highlight the organisations that will be in charge of the implementation and evaluation of these cluster policies. The National Council for Research, Technology and Innovation is the highest advisory body of the State, regarding the drafting of the National Strategic Plan for Research, Technological Development and Innovation. Furthermore, the Regional Scientific Councils for Research and Innovation (RSIC) are bodies supporting development actions and implementing the National Strategic Plan for Research, Technological Development and Innovation at the regional level. The two above boards will have a key role in the implementation and evaluation of the Regional Development Corporate Act (2021-2027).

Cluster support instruments

The Government of Greece provides funding through direct grants. The Actions are co-financed by national resources and the European Union; in particular, by the European Regional Development Fund (ERDF).

“Innovation clusters” initiative funds a large variety of cluster activities such as prototyping, training, participation in joint exhibitions, display products. Also, it provides funding for personnel as well as infrastructure facilities.

The initiative “Competence Centers” funds financial support that can be used for facilities and equipment, exchange of knowledge and expertise, networking, information dissemination and collaboration between enterprises and other organisations. In addition, funding can be allocated towards encouraging transfer of technological solutions and innovations to production processes and/or for the production or supply of products and services resulting from the development, adoption, and diffusion of new technologies to companies, to improve their competitiveness. Moreover, staff training for companies is also funded.

In case of “Strengthening Value Added Chains – Clusters – Networking” initiative, it funds collaboration initiatives and support to research and development projects.



Regarding the regional cluster policy of Attica Region, the policy supports collaboration initiatives, R&D projects, funding for personnel, infrastructure facilities, financing start-ups as well as supporting market entry.



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 Greek cluster policy can play a role in tackling the challenges identified in the European Semester Report for the country. To this end, the European Semester 2023 country report for Greece⁷ 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 4: Contribution of Greek cluster policy to the challenges identified in the European Semester Report

Policy area	Challenges	Cluster policy
SKILLS 	<ul style="list-style-type: none"> Green skills needed for the green transition should be promoted more 	<p>In regard to upskilling & reskilling, the report refers to the improvement of green skills levels. Both the national cluster policy "Innovation Clusters" and the "Competence Centers" aim at promoting employment and upgrading skills and competences as well as providing technical support for the development of hard and soft skills. Here, especially the "Competence Centers" can be highlighted that provides financial support for staff training of companies to acquire relevant skills.</p> <p>Research underlines the role of clusters in developing the skills of the workforce and attracting skilled workers to a region.⁸ Moreover, as cluster organisations act as intermediaries between companies and research and educational institutions, they can also be seen as part of the training and educational infrastructure in the innovation ecosystem.⁹</p>
GREEN TRANSITION 	<ul style="list-style-type: none"> Need to reduce dependence on fossil fuels and further expand the deployment of renewable energy 	<p>In terms of the green transition, the report emphasises the reduction of the country's dependence on fossil fuels. This objective must be pursued through an accelerated expansion of renewable energy sources, which involves increasing the deployment of renewable energy technologies. This encompasses the development of hydrogen infrastructure and the advancement of offshore wind projects, both of which are instrumental in driving the decarbonisation of the Greek economy and achieving the nation's environmental targets. The Greek cluster policies at hand ("Innovation Clusters", "Competence Centers" and "Strengthening Value Added Chains – Clusters – Networking") focus on priority areas/ sectors like "energy" or "environment and sustainable growth" that are relevant for the green transition and the use of renewable energies.</p>

⁷ https://economy-finance.ec.europa.eu/document/download/dc357402-7c95-4c15-b9b3-4ee25c7d317a_en?filename=EL_SWD_2023_608_en.pdf (last access 12.01.2024).

⁸ Hsu, M.-S et al. (2014).

⁹ European Expert Group on Clusters (2020).



Policy area	Challenges	Cluster policy
		<p>Studies 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.¹⁰ Furthermore, it can be underlined that cluster organisations have a positive influence on the green transition, not least because they facilitate exchange between different actors, disseminate relevant knowledge and practices and deepen environmental awareness among stakeholders.¹¹</p>

Source: ECCP (2023).

¹⁰ Lis and Mackiewicz (2023); ECCP (2021).

¹¹ Hatch et al. (2017).

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Annex

Table 5: Analytical framework for the state of cluster policy

Criterion	Description	Categorical Variables
Policy scope	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	absence of cluster policy existence of broader policies existence of specific sectoral policies existence of targeted cluster policies
Continuity of cluster policies	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	absence of policies supporting cluster development cluster policy established recently (within the last 2 years) cluster policy established between over 2 and 10 years cluster policy established over 10 years ago
Evidence of performance	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	no evaluation and / or monitoring available existence of evaluations of past policies, e.g. ex-ante existence of monitoring or an ongoing / interim evaluation existence of monitoring and ex-ante or ongoing / interim evaluation
Cluster Support Instruments	assessment whether the policies provide any instruments to support the policy implementation, being these financial and/or technical support	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).