



EUROPEAN CLUSTER  
COLLABORATION PLATFORM

# Country factsheet

Italy

An initiative of the European Union





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# 01

## Introduction and policy context



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# 1. Introduction and policy context



This document presents an overview of the cluster policy in Italy. 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 for Italy](#).

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 provides an overview on how Italy’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 EU and national level have acted decisively and made very significant financial resources available to tackle the threat of a prolonged downturn. This was carried out through the Recovery and Resilience Facility. [National recovery and resilience plan](#) (PNRR) have been drafted in each Member State to ensure a recovery that addresses the challenges identified in the European Semester. The Italian clusters are mentioned as a key tool for the successful and quick implementation of innovation projects. They can help in properly allocating the funds for economic value creation as well as manage funding schemes for SMEs.

The National recovery and resilience plan (PNRR), explicitly mentions six cluster areas within the national research plan (PNR) and research plan for relevant national interest (PRIN). These are categorised in the following areas: health; humanistic culture, creativity, social transformation, an inclusive society; security for social systems; digital, industry, aerospace; climate, energy, sustainable mobility; food, bioeconomy, natural resources, agriculture, environment. The cluster development aims to strengthen the research tools and guarantee the implementation of research projects within the strategic guidelines of the National recovery and resilience plan (PNRR). 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 Italy makes no clear reference to clusters. However, it does consider the PNRR and consequently the clusters mentioned within. The national and regional Operational Programmes (OP) for the ERFD, for their part, contain several policy initiatives designed to foster relevant clusters. Tourism, culture and blue technologies based on or related to the oceans, seas and coasts such as for instance blue biotechnology or renewable energies from the sea are the three fields mentioned in the national OPs, while all the 21 regional OPs mention relevant economic clusters as potential beneficiaries.

In what follows a succinct overview of cluster policy in Italy will be provided. The structure of this factsheet generally encompasses:

- 1) an overview of the industrial ecosystems and cluster landscape in Italy
- 2) an overview of the national cluster policy and an insight into a regional 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.

# 02

## Industrial ecosystems and cluster landscape



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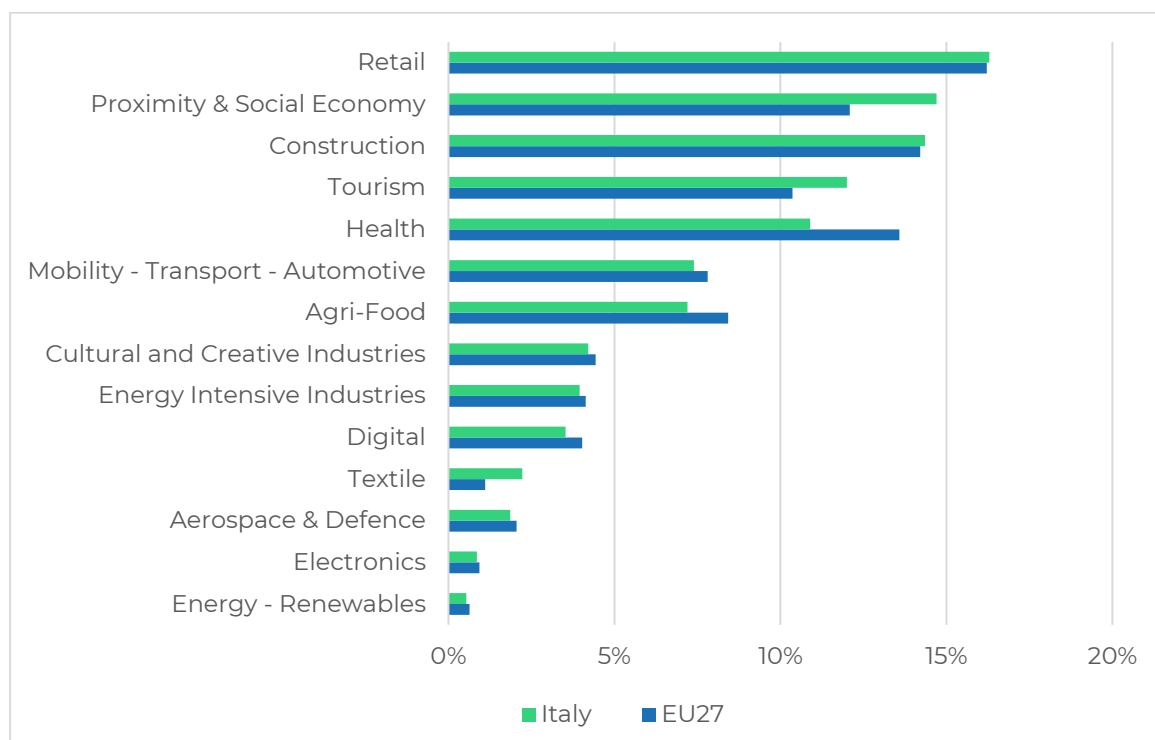
## 2. Industrial ecosystems and cluster landscape

### 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>1</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>2</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 Italy and the EU27 in each industrial ecosystem is shown relative to the number of all employed persons in the 14 industrial ecosystems. The ecosystems are ordered from top to bottom according to their share 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 three main ecosystems by employment in Italy are “Retail”, “Proximity & Social Economy”, and “Construction”, in all of which more people are employed in Italy compared to the EU average. The same goes for the “Tourism” and “Textile” sectors.

**Figure 1: Employment across the industrial ecosystems**



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

<sup>1</sup> see here for more information <https://clustercollaboration.eu/in-focus/industrial-ecosystems> (last access 09.01.2024).

<sup>2</sup> see European Commission (2022): Annual Single Market Report, SWD(2022).





## 2.2 Regionally relevant agglomerations

Economic activity, and therefore employment, is not equally distributed in all regions. Specialisation can be measured through Location Quotients (LQ) that reflect the relative specialisation of an activity in a region compared to the EU average. If the LQ for a given activity-region combination is above 1.5, it is considered a specialisation agglomeration, and if the activity accounts for at least 1 % of total employment in the region, it is considered regionally relevant. The following tables show the total number of regionally relevant specialisation agglomerations in each region in the country and identify the top five most specialised of these. The first table focuses on the 88 NACE 2-digit activities or sectors, totalling 94 in the country, while the second table is based on the 14 ecosystems, which total 19 in the country.

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

Region	Number of agg.	Agg. 1	Agg. 2	Agg. 3	Agg. 4	Agg. 5
<b>ITC1: Piedmont</b>	8	T97 - Households as employers act.	C14 - Manuf. of wearing apparel	M74 - Other prof., scientific, techn. act.	C28 - Manufacture of machinery and equipment n.e.c.	K64 - Financial service activities, except insurance and pension
<b>ITC2: Valle d'Aosta</b>	5	T97 - Households as employers act.	I56 - Food & beverage services	D35 - Electricity, gas, steam and air conditioning supply	I55 - Accommodation	S96 - Other personal services
<b>ITC3: Liguria</b>	8	T97 - Households as employers act.	H52 - Warehousing & support for transportation	S96 - Other personal services	H49 - Land transport and transport via pipelines	M74 - Other prof., scientific, techn. act.
<b>ITC4: Lombardy</b>	8	T97 - Households as employers act.	C14 - Manuf. of wearing apparel	M74 - Other prof., scientific, techn. act.	M69 - Legal & accounting	C28 - Manufacture of machinery and equipment n.e.c.
<b>ITF1: Abruzzo</b>	3	T97 - Households as employers act.	S96 - Other personal services	C28 - Manufacture of machinery and equipment n.e.c.	-	-
<b>ITF2: Molise</b>	2	T97 - Households as employers act.	A01 - Crop and animal production, hunting and related service activities	-	-	-
<b>ITF3: Campania</b>	2	T97 - Households as employers act.	S96 - Other personal services	-	-	-
<b>ITF4: Apulia</b>	2	T97 - Households as employers act.	A01 - Crop & animal production	-	-	-
<b>ITF5: Basilicata</b>	3	E38 - Waste activities	T97 - Households as employers act.	A01 - Crop & animal production	-	-
<b>ITF6: Calabria</b>	3	T97 - Households as employers act.	A01 - Crop & animal production	S96 - Other personal services	-	-
<b>ITG1: Sicily</b>	4	T97 - Households as employers act.	E38 - Waste activities	S96 - Other personal services	A01 - Crop & animal production	-
<b>ITG2: Sardinia</b>	4	T97 - Households as employers act.	S96 - Other personal services	I56 - Food and beverage service activities	-	-
<b>ITH1: Autonomous Province of Bolzano</b>	4	I56 - Food and beverage service activities	T97 - Households as employers act.	I55 - Accommodation	A01 - Crop and animal production, hunting	-





<b>ITH2: Autonomo us Province of Trento</b>	2	T97 - Households as employers act.	I56 - Food and beverage service activities		-	-
<b>ITH3: Veneto</b>	4	C14 - Manuf. of wearing apparel	T97 - Households as employers act.	C28 – Manuf. of machinery and equipment	C25 - Manuf. of fabricated metal products	-
<b>ITH4: Friuli-Venezia Giulia</b>	5	T97 - Households as employers act.	C14 - Manuf. of wearing apparel	C28 – Manuf. of machinery and equipment	C25 - Manuf. of fabricated metal products	S96 - Other personal services
<b>ITH5: Emilia-Romagna</b>	4	T97 - Households as employers act.	C14 - Manuf. of wearing apparel	C28 – Manuf. of machinery and equipment	C25 - Manuf. of fabricated metal products	-
<b>ITI1: Tuscany</b>	7	T97 - Households as employers act.	M74 - Other prof., scientific, techn. act.	S96 - Other personal services	C28 – Manuf. of machinery and equipment	I56 - Food and beverage service activities
<b>ITI2: Umbria</b>	4	T97 - Households as employers act.	S96 - Other personal services	M74 - Other prof., scientific, techn. act.	M69 - Legal & accounting	-
<b>ITI3: Marche</b>	5	C14 - Manuf. of wearing apparel	T97 - Households as employers act.	C28 – Manuf. of machinery and equipment	C25 - Manuf. of fabricated metal products	S96 - Other personal services
<b>ITI4: Lazio</b>	7	T97 - Households as employers act.	J63 - Information service activities	S96 - Other personal services	M74 - Other prof., scientific, techn. act.	M69 - Legal & accounting

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

For almost all Italian regions, the sector “Activities of households as employers of domestic personnel” (T97) and “Other personal services” (S96) are among the most relevant sectoral agglomerations (NACE). These sectors, among others, are reflected in the industrial ecosystem “Proximity & Social Economy”, which makes up second-most of the total employment in the country, at a higher share than at the EU27 level (See Figure 1). Two regions have a regionally relevant agglomeration in this ecosystem, namely Sardinia (ITG2) and Lazio (ITI4). Some regions, particularly those in the northeast and northwest of Italy, exhibit regionally relevant sectoral agglomerations in the manufacturing of wearing apparel (C14) as well as agglomerations in the ecosystem “Textile”. The specialisation in this industrial ecosystem can also be traced back to the fact that the share of the “Textile” ecosystem at the country level is higher – about double – compared to the share at the EU27 level, as shown by Figure 1.

**Table 2: Regionally relevant ecosystem agglomerations**

Region	Number of agglomerations	Agglomeration 1	Agglomeration 2
<b>ITC1: Piedmont</b>	1	Textile	-
<b>ITC2: Valle d'Aosta</b>	1	Tourism	-
<b>ITC3: Liguria</b>	0	-	-
<b>ITC4: Lombardy</b>	1	Textile	-
<b>ITF1: Abruzzo</b>	1	Textile	-
<b>ITF2: Molise</b>	1	Textile	-



<b>ITF3: Campania</b>	0	Textile	-
<b>ITF4: Apulia</b>	0	-	-
<b>ITF5: Basilicata</b>	2	Textile	Agri-Food
<b>ITF6: Calabria</b>	1	Agri-Food	-
<b>ITG1: Sicily</b>	0	-	-
<b>ITG2: Sardinia</b>	1	Proximity, Social economy and Civil Security	-
<b>ITH1: Autonomous Province of Bolzano</b>	2	Tourism	Textile
<b>ITH2: Autonomous Province of Trento</b>	1	Textile	-
<b>ITH3: Veneto</b>	1	Textile	-
<b>ITH4: Friuli-Venezia Giulia</b>	1	Textile	-
<b>ITH5: Emilia-Romagna</b>	1	Textile	-
<b>ITI1: Tuscany</b>	1	Textile	-
<b>ITI2: Umbria</b>	1	Textile	-
<b>ITI3: Marche</b>	1	Textile	-
<b>ITI4: Lazio</b>	1	Proximity, Social Economy and Civil Security	-

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

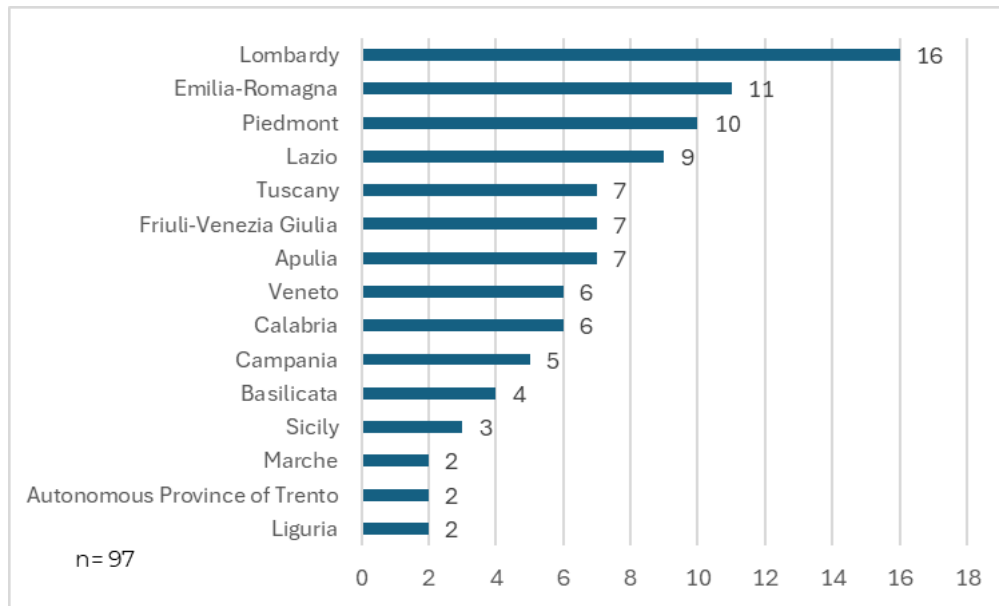
## 2.3 Cluster organisations in the regions & interregional cooperation

### Cluster organisations in the regions

There are 97 cluster organisations registered on the ECCP in the country. The regions with the most profiled cluster organisations on the ECCP are Lombardy, Emilia-Romagna, and Piedmont. Liguria, the Autonomous Province of Trento, and Marche are among the regions with the lowest number of cluster organisations registered on the ECCP. 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 (87%, EU: 83%) followed by large enterprises (8%, EU: 9%) and research organisations (9%, EU: 7%) constitute the majority of member organisations of Italian cluster organisations with profiles on the ECCP. From a thematic perspective, these Italian cluster organisations are operating in the following industrial ecosystems. 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.

- Health (9 cluster organisations)
- Construction (9 cluster organisations)
- Digital (9 cluster organisations)
- Mobility-Transport-Automotive (9 cluster organisations)
- Agri-food (8 cluster organisations)
- Renewable Energy (8 cluster organisations)
- Creative & Cultural Industries (8 cluster organisations)
- Aerospace & Defence (7 cluster organisations)
- Proximity & Social Economy (6 cluster organisation)
- Textile (5 cluster organisation)
- Tourism (2 cluster organisations)
- Energy Intensive Industries (2 cluster organisation)
- Electronics (2 cluster organisation)



### **Cross-regional / international cooperation**

In the 2014-2020 funding period<sup>3</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. The Italian cluster organisations have been involved in 69 consortia of the European Strategic Cluster Partnerships out of which 48 partnerships were focusing on internationalisation (ESCP-4i) and 21 partnerships were on cluster management excellence (ESCP-4x). Consortia partners came from 2 different EU member states (ES, FR, HU, CZ, IE, PL, UK, DK, TR, EL, DE, RS, SK, AT, PT, RO, BG, BE, NL, EE, SE, FI). 18 Italian cluster organisations participated in the INNOSUP-1 initiative with partner organisations coming from 22 countries (ES, PL, BE, SI, NO, CZ, HU, FR, DE, FI, IE, CH, EL, PT, EL, RO, AT, DK, SE, NL, UK, TR).

In the 2021-2027 funding period, the Single Market Programme supports clusters as part of the Joint Clusters Initiatives (Euroclusters) for Europe's recovery. From Italy, 21 cluster organisations are part of 18 Euroclusters with partner from 19 countries (SK, AT, ES, RO, BG, DE, FI, PL, LT, HU, BE, EL, CZ, FR, PT, LV, HR, SE, NL). These Euroclusters are AEC Eurocluster, AIBC Eurocluster, B-Resilient, CREATHRIV-EU, DREAM, EPICENTRE, EU Rural Tourism, EuroBoostEX, FRIEND CCI, GEMSTONE, IKAT, LEVIATAD, MedBan, PIMAP4SUSTAINABILITY, RE-CENTRE, SILEO, Silicon Eurocluster, SocialTech4EU. Collectively, they cover all 14 industrial ecosystems. Some Euroclusters cover multiple ecosystems, such as EPICENTRE (covering "Agri-food," "Digital," and "Health") or MedBan (covering "Tourism", "Mobility-" and "Renewable Energy").

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<sup>3</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.

# 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 Italian 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 showing the categories of analysis (‘Policy Objectives’, ‘Policy Focus’, etc.). The second column represents the case of the Italian national cluster policy, whilst the third represents an exemplary regional cluster policy in Italy. This factsheet showcases a new example of a regional cluster policy in Italy for the region of Lombardy. 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 Italy.

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

Policy type:	National cluster policy	Regional cluster policy
Policy name:	Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
 <b>POLICY OBJECTIVES</b>	<b>Strengthening cooperation between companies or industry and RTDI actors</b>	<b>Strengthening cooperation between companies or industry and RTDI actors</b>
	<b>Increasing competitiveness and boosting scale up of SMEs</b>	<b>Increasing competitiveness and boosting scale up of SMEs</b>
	<b>Supporting internationalisation activities</b>	<b>Supporting internationalisation activities</b>
	<b>Fostering R&amp;D activities, technology development and implementation</b>	<b>Strengthening the network of cluster organisations/cross-clustering</b>
	<b>Fostering innovation and strengthening innovation ecosystems</b>	<b>Fostering R&amp;D activities, technology development and implementation</b>
	<b>Supporting the consolidation of existing cluster organisations</b>	<b>Fostering innovation and strengthening innovation ecosystem</b>
	<b>Supporting the creation of new cluster organisations</b>	<b>Supporting cluster excellence and professionalisation of cluster management</b>
	<b>Promoting entrepreneurship, start-ups and spin-offs</b>	<b>Supporting the consolidation of existing cluster organisations</b>
	<b>Promoting resilience and sustainable economy and other solidarity-based initiatives</b>	<b>Supporting the creation of new cluster organisations</b>
	<b>Promoting employment and upgrading skills and competences</b>	





Policy type:	National cluster policy	Regional cluster policy
Policy name:	Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
	<p><b>Enhancing territorial cohesion (through RIS3)</b></p> <p><b>Strengthening the network of cluster organisations/cross-clustering</b></p> <p><b>Cluster analysis and support for policymaking</b></p> <p><b>Increase supply chain resilience</b></p> <p>Italy's flagship policy in relation to clusters is the identification of 12 national technology clusters, which act as networks of public and actors that operate at the national level in as many industrial sectors. They function as catalysts of resources to respond to the needs of the territory and the market by connecting the world of research with that of business. The 12 clusters, which enacted a series of projects that were financially supported by the state, have been chosen to mirror the 12 priority areas of the National Program for Research (2015-2020). The stated tasks of each cluster are the following:</p> <ul style="list-style-type: none"> <li>• Guide the strategic repositioning of the production system in the international technological panorama;</li> <li>• Collect in a coordinated and organic way the best experiences and competences existing in the reference territory and in the national territory, favouring the inclusion of all the organisations operating in the sector interested in joining and realising, at the same time, synergies between different industrial sectors on the same technological typologies</li> <li>• Foster a stable connection and interaction between national, regional and local spheres, policies, interventions and instruments;</li> </ul>	<p><b>Promoting entrepreneurship, start-ups and spin-offs</b></p> <p><b>Promoting resilience and sustainable economy and other solidarity-based initiatives</b></p> <p><b>Promoting employment and upgrading skills and competences</b></p> <p>The Lombardy Region, in line with the MIUR initiative and the Smart Specialisation process underway at national and European level, has launched a complex governance action in its territory aimed at identifying and supporting technology clusters at regional level in order to encourage maximum synergy between initiatives, optimal use of resources and the broadest involvement of Lombardy's implementing bodies for better exploitation and implementation of the sectors identified as strategic for the Lombardy economy and competitiveness.</p> <p>Within this framework, the Lombardy Region published a 'Call for applications from research organisations in partnership with enterprises for participation in the initiatives of the region and the M.I.U.R. to strengthen and/or create high-technology districts. Decree no. 2239 of 17 March 2014 subsequently approved the list of the Lombard Technological Clusters (CTLs) that can apply for recognition and access to financial subsidies and the related Notice, to apply for recognition as a Lombard Technological Cluster (CTL) and request support for development and recognition activities.</p>







Policy type:	National cluster policy	Regional cluster policy
Policy name:	Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
	<ul style="list-style-type: none"> <li>enhancing strategic research, technological development and innovation programmes consistent with national and international programmes, in particular the National Strategy for Intelligent Specialisation (SNSI) and the European Programme for Research and Innovation Horizon Europe;</li> <li>Create conditions to improve the attractiveness of investment and talent.</li> <li>Simultaneously mobilise the excellence of the industrial system, the research world and the regional and national public administration on shared themes that are considered priorities and strategic for the country in the medium and long term;</li> <li>Promote the sharing and transfer of knowledge and specialised skills among the various players in the industrial and research system</li> <li>Optimise the use of available public economic resources, avoiding excessive fragmentation;</li> <li>Improve the ability to attract investment and talent, including through internationalisation processes;</li> <li>Promote the sustainable economic growth of territories and the entire national economic system;</li> <li>Assume a relevant role in the European and international panorama in terms of research and innovation;</li> <li>Enhance the excellence of Made in Italy.</li> </ul>	
	<b>Cross-Sectoral</b>	<b>Cross-sectoral</b>



Policy type:	National cluster policy	Regional cluster policy
Policy name:	Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
 <b>POLICY FOCUS</b>	<p>The 12 priority areas identified in the PNR, and thereby the 12 national technology clusters, are the following:</p> <ol style="list-style-type: none"> <li>1. Aerospace</li> <li>2. Agrifood</li> <li>3. Green Chemistry</li> <li>4. Smart Factory</li> <li>5. Means and systems for land and sea surface mobility,</li> <li>6. Life Sciences, Technologies for living environments</li> <li>7. Technologies for Smart Communities.</li> <li>8. Technologies for Cultural Heritage,</li> <li>9. Design</li> <li>10. Creativity and Made in Italy</li> <li>11. Maritime Economy</li> <li>12. Energy</li> </ol>	<p>The regional government of Lombardy, Regione Lombardia, has recognised and financially supported the development of nine technology clusters at the regional level, for the start-up and consolidation level, with the aim of involving the entire innovation ecosystem and facilitating collaborations and synergies between the various players. Each regional technology cluster covers nine selected technology fields:</p> <ul style="list-style-type: none"> <li>• Lombardia Aerospace Cluster, with 114 members,</li> <li>• High Technology Cluster Agrifood Lombardy (CAT.AL), which counts 14 members,</li> <li>• Lombardy Green Chemistry Association, which counts 50 members,</li> <li>• Lombardy Energy Cleantech Cluster, with 140 members,</li> <li>• Lombardy Intelligent Factory Association (AFIL), which counts 143 members</li> <li>• Lombardy Mobility Cluster, which counts 100 members,</li> <li>• Lombardy Life Science Cluster, with 114 members,</li> <li>• Cluster of Technologies for Smart Cities and Communities Lombardy (Cluster SCC), with 88 members,</li> <li>• Lombardy Cluster for Technologies for Living Environment Foundation, with 31 members.</li> </ul>
	 <b>RESPONSIBLE AUTHORITIES</b>	<p><b>In charge of drafting</b></p> <p><b>In charge of implementation</b></p> <p><b>Oversees the implementation</b></p> <p>The sectoral areas have been identified by the Ministry of University and Research (Ministero dell'universita' e della Ricerca). The identification process has seen the involvement of the regions,</p>
		<p><b>In charge of drafting</b></p> <p><b>In charge of implementation</b></p> <p><b>Oversees the implementation</b></p> <p>The regional government of Lombardy, Regione Lombardia, is responsible for the support.</p>





Policy type:		National cluster policy	Regional cluster policy
Policy name:		Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
		which are also called upon to financially support complementary activities functional to the development and enhancement of clusters, within the framework of specific Programme Agreements with the Ministry.	
 <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> <b>General population</b>	<b>SMEs</b> <b>Cluster organisations</b> <b>Research organisations</b> <b>Academic institutions</b> <b>Start-ups</b> <b>General population</b>
		The selected clusters execute projects whose ultimate benefits fell upon all the above-listed actors.	The selected clusters execute projects whose ultimate benefits fell upon all the above-listed actors
 <b>INSTRUMENTS</b>	<b>Financial</b>	<b>Funding collaboration initiatives</b> <b>Support to R&amp;D projects, SMEs becoming cluster members, etc.</b> <b>Subsidies for cluster infrastructure (e.g., offices, equipment)</b>	<b>Funding collaboration initiatives</b> <b>Support to R&amp;D projects, SMEs becoming cluster members, etc.</b> <b>Subsidies for cluster infrastructure (e.g., offices, equipment)</b>
	<b>Technical assistance</b>	N/A	N/A
	<b>Explanation</b>	The financial envelope of EUR 310 million was split, roughly equally, between several projects put forward by each of the identified clusters. (About EUR 40 million per technology cluster)	The projects submitted by the regional technology clusters were first supported for EUR 50.000 each, for a total envelope of EUR




Policy type:		National cluster policy	Regional cluster policy
Policy name:		Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
 <b>HISTORY</b>			500.000. Subsequent funding was foreseen under the ERDF Regional Operational Programme for 2014-2020.
	<b>Period</b>	<b>Unlimited</b>	<b>Unlimited</b>
	<b>Ending year</b>	-	-
	<b>Starting year</b>	2013	2014
	<b>Explanation</b>	Eight of the 12 clusters were first identified and supported in 2013, with a further 4 being selected and supported in 2016. The activity of the national clusters is ongoing.	The origins of Lombardy's cluster policy can be traced back to March 2001, when the region identified 16 "industrial districts of specialised production". These districts, which were intended as functional bodies for the promotion of innovative development programmes, were complemented in October of the same year by the establishment of meta-districts, namely "production areas of excellence, with strong existing or potential links to the world of research and innovation production, capable of representing development poles with high technological potential". At the onset of the 2007-2013 programming period, the meta-districts were renamed "Thematic Priority Areas" and their number significantly expanded through the experimental programme DRIADE (Distretti Regionali per l'Innovazione, l'Attrattività e il Dinamismo dell'Economia locale - Regional Districts for Innovation, Attractiveness and Local Economic Dynamism). In 2012, in parallel with the establishment of national and European policies, the existing "High Technology Districts" (which were established in 2011 to follow up on the DRIADE Programme) were then transformed into the aforementioned Regional Technology Clusters.



Policy type:		National cluster policy	Regional cluster policy
Policy name:		Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
			As mentioned, at the onset of the 2014-2020 programming period the regional government of Lombardy recognised a number of regional technology clusters, referred to as the Lombardy Technology Clusters, as key tenets of the regional innovation ecosystem. With time, the number has risen to nine selected technology fields, which closely align with the “national technology clusters” identified by the Italian state. The goal of each cluster is to offer opportunities for dialogue to define and implement research projects, as well as to favour the emergence of ambitious innovation initiatives through their expertise and in-depth knowledge of regional value chains. The 9 LTCs continuously map the competencies existing within them – and in the regional territory – in relation to the ecosystems of innovation identified by the Regional Innovation Strategy for Smart Specialisation, which they have contributed to define.
 <b>BUDGET</b>	<b>Overall</b>	The 12 national clusters were supported with funds totalling EUR 310 million.	A total of at least EUR 1.500.000 was provided to support the regional technology clusters since 2014-
	<b>Annual</b>	Data unavailable.	Data unavailable.
	<b>Source of funding</b>	The support was funded by the Ministry of University and Research (MIUR)	The support was funded by the Regional Government of Lombardy.
 <b>POLICY EVALUATION</b>	<b>Availability</b>	<b>None</b>	<b>None</b>
	<b>Results</b>	N/A	N/A



Policy type:	National cluster policy	Regional cluster policy
Policy name:	Cluster Tecnologici Nazionali (National technology clusters)	Regional Technology clusters (Lombardy)
<b>POLICY ALIGNMENT WITH THE EU PRIORITIES</b> 	<b>Green economy</b> <b>Digitalisation</b> <b>Resilience</b>	<b>Green economy</b> <b>Digitalisation</b> <b>Resilience</b>

# 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 Italian 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 Italian cluster policy for 2023.

**Table 4: State of Play**

Italy	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 Italy.



## **Policy scope**

In terms of policy scope and approach the cluster policy in Italy is characterised by a mix of national and regional level coordination of clusters. As described in section 3, at the national level, 12 national technological clusters have been identified, each representing different industrial sectors within the economy. In this respect, the policy can be described as a sectoral one. Moreover, the national strategy provides overarching guidance, monitoring and coordination for regional level strategies whose scope it is to implement the cluster policies in accordance with the national. The development and facilitation of cluster initiatives is financed regionally and based on regional strategies, of which 21 (one for each region) exist. This justifies the classification of Italy's policy as a national / regional cluster policy.

## **Continuity**

The first cluster policy in Italy can be traced back to the 1980s, when so called “Distretti industriali” (industrial districts) were part of regional development. However, this type of regional development plan lacked the aspect of knowledge spill-overs and involvement of public and private research entities. Since then, cluster policy has grown rapidly and spread to different regions, which have implemented their own cluster policies and included the above-mentioned missing part of cluster policy. On a national level the current National Strategy plan can be traced back to 2007-2013, when the MIUR (Ministry of University and Research) and the Ministry of Economic Cohesion initiated the first programme dedicated to national technological cluster. Lombardy's cluster policy can be traced back at least to the year 2014. In a shift from previous approaches, the current Italian national policy intends to develop a comprehensive ecosystem of clusters that can spearhead the development of their respective industrial sectors through the vertical coordination of value chains.

## **Evidence of performance**

No monitoring or evaluation reports are publicly available for Italy's technology cluster policy. Given its overarching nature, which acts as a framework within which different clusters operate rather than as a policy per se, it might be difficult to acquire evidence as to whether the application of such framework has led to results that would not have been possible otherwise. The approach is nonetheless an innovative one, which introduces in the country's industrial policy a specific role for cluster organisations, building on the experience of the “Distretti Industriali” (“Industrial districts”) in the 1980s.

## **Cluster support instruments**

The policy is underpinned by the provision of state grants for the execution of projects within the selected national technology clusters<sup>4</sup>. Similarly, regional administrations (such as that of Lombardy<sup>5</sup>) have provided grants to support the execution of projects within the regional technology clusters. Moreover, both national and regional support is periodically made available to private enterprises that are part of the respective national or cluster organisations.

<sup>4</sup> See, for reference, <https://www.invitalia.it/cosa-facciamo/sviluppiamo-i-territori/innovazione/cluster-tecnologici-nazionali>

<sup>5</sup> See, for reference, <https://www.bandi.regione.lombardia.it/servizi/servizio/bandi/ricerca-innovazione/ricerca-sviluppo-innovazione/asse-bando-consolidamento-9-cluster-tecnologici-lombardi-cti-RLR12016001182>



## 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 Italian 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 Italy 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 Italian 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>• Low R&amp;D expenditure</li> <li>• Lack of science-business collaborations</li> <li>• Little coordination of efforts between stakeholders</li> </ul>	<p>The National technological clusters programme has the explicit goal of fostering R&amp;D activity and collaborations as well as to strengthen the innovation system in the selected industrial sectors. Funding is provided both nationally (for the national clusters) and regionally (for the regional ones) to undertake complex R&amp;D projects that involve multiple stakeholders.</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 needs</li> </ul>	<p>The regional and national technology clusters, acting in their unique position of intermediary between businesses, academia and the public sector, are uniquely placed to support HEI to produce educational curricula that align with the needs of local businesses in the respective industrial sectors. Several universities collaborate with the regional technology clusters. For instance, the Università Statale di Milano participates in the three following regional technology clusters<sup>6</sup>:</p> <ul style="list-style-type: none"> <li>• Technology Cluster Agrifood Lombardy</li> <li>• Lombardy Green Chemistry Association,</li> <li>• Lombardy Life Science Cluster</li> </ul>
 <b>GREEN TRANSITION</b>	<ul style="list-style-type: none"> <li>• Need to accelerate Italian industry's transition towards net zero through a better regulatory environment, higher investment in cleantech manufacturing and green skill development</li> </ul>	<p>The national technology clusters engage in a series of projects that have the green and digital transition at their core. For instance, the National Aerospace and Defence cluster initiated a collaboration with the Space Economy Observatory of the Politecnico di Milano, with the aim of launching a survey at national level to map the capabilities and gaps of Italian companies in the Space supply chain with regard to digital transformation, technological innovation and the evolution of business models in New Space logic.<sup>7</sup></p>

Source: ECCP (2023).

<sup>6</sup> See [https://work.unimi.it/servizi\\_ricerca/bandi\\_finanz/104528.htm](https://work.unimi.it/servizi_ricerca/bandi_finanz/104528.htm) for more details.

<sup>7</sup> See <https://www.ctna.it/iniziativa/> for more details.

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## Annex

**Table 5: 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)