



EUROPEAN CLUSTER
COLLABORATION PLATFORM

Country factsheet

Italy

An initiative of the European Union





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Introduction



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

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

01

Industrial ecosystems and cluster landscape



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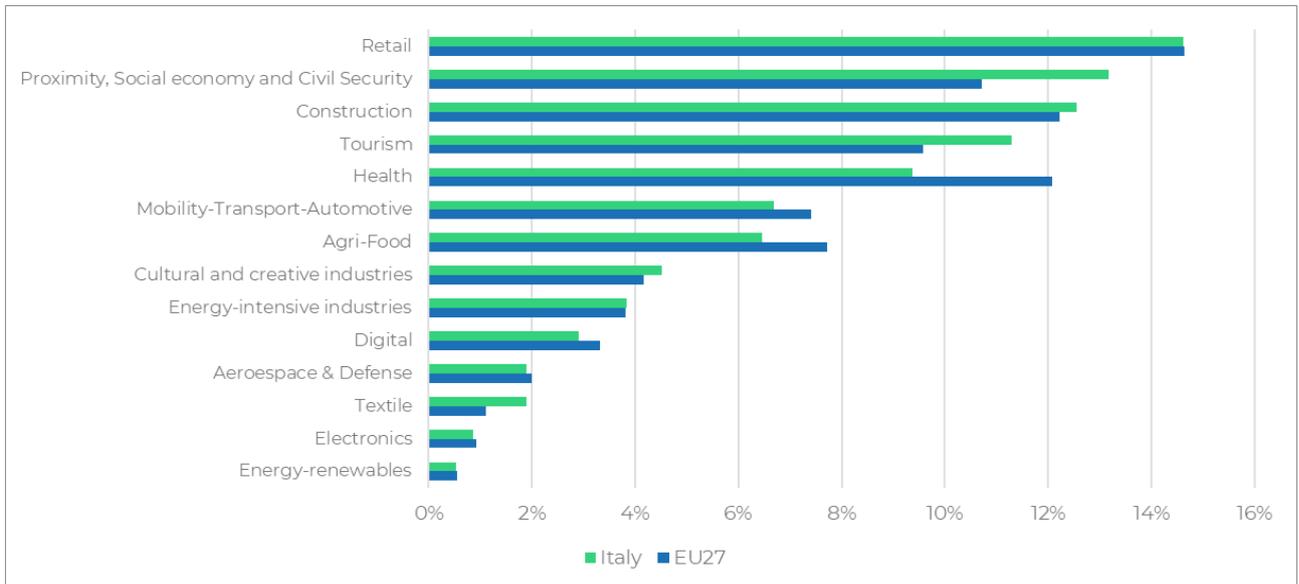


1. Industrial ecosystems and cluster landscape

Employment in the 14 ecosystems in the country

As part of its Industrial Strategy (March 2020), the European Commission has selected 14 industrial ecosystems that are particularly relevant in Europe and encompass all players operating in a value chain. The following graph shows the proportion of the country’s employment accounted for by each ecosystem, as well as the equivalent figure for the EU27 on average. 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.

Graph 1: Employment in the ecosystems



Source: Own elaboration from Eurostat and National Statistical Offices

Regionally relevant nodes

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 node, 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 nodes in each region in the country and identifies the top five most specialised of these nodes. The first table focuses on the 88 NACE 2-digit activities or sectors, totalling 140 in the country, while the second table is based on the 14 ecosystems, which total 16 in the country.



Table 1: Regionally relevant sectoral nodes

| Region | Number of nodes | Node 1 | Node 2 | Node 3 | Node 4 | Node 5 |
|---|-----------------|---------------------------------------|--|--|--|--|
| ITC1: Piedmont | 7 | T97 - Households as employers act. | M74 - Other prof., scientific, techn. act. | C29 - Manuf. of motor vehicles & trailers | C32 - Other manufacturing | C28 - Manuf. of machinery & equipment |
| ITC2: Valle d'Aosta | 5 | I55 - Accommodation | T97 - Households as employers act. | F41 - Construction of buildings | I56 - Food & beverage services | S96 - Other personal services |
| ITC3: Liguria | 9 | H50 - Water transport | T97 - Households as employers act. | H52-Warehousing & support for transportation | M71 - Architecture, engineering | I55 - Accommodation |
| ITC4: Lombardy | 9 | T97 - Households as employers act. | M74 - Other prof., scientific, techn. act. | M69 - Legal & accounting | C24 - Manuf. of basic metals | C28 - Manuf. of machinery & equipment |
| ITF1: Abruzzo | 6 | C14 - Manuf. of wearing apparel | T97 - Households as employers act. | M69 - Legal & accounting | S96 - Other personal services | F41 - Construction of buildings |
| ITF2: Molise | 4 | T97 - Households as employers act. | S96 - Other personal services | C29 - Manuf. of motor vehicles & trailers | A01 - Crop & animal production | |
| ITF3: Campania | 5 | T97 - Households as employers act. | M69 - Legal & accounting | S96 - Other personal services | I56 - Food & beverage services | F41 - Construction of buildings |
| ITF4: Apulia | 6 | T97 - Households as employers act. | C24 - Manuf. of basic metals | S96 - Other personal services | A01 - Crop & animal production | M69 - Legal & accounting |
| ITF5: Basilicata | 5 | A02 - Forestry & logging | E38 - Waste activities | C29 - Manuf. of motor vehicles & trailers | T97 - Households as employers act. | A01 - Crop & animal production |
| ITF6: Calabria | 8 | A02 - Forestry & logging | E38 - Waste activities | A01 - Crop & animal production | T97 - Households as employers act. | S96 - Other personal services |
| ITG1: Sicily | 7 | T97 - Households as employers act. | E38 - Waste activities | S96 - Other personal services | M69 - Legal & accounting | I56 - Food & beverage services |
| ITG2: Sardinia | 5 | T97 - Households as employers act. | I55 - Accommodation | S96 - Other personal services | F41 - Construction of buildings | I56 - Food & beverage services |
| ITH1: Autonomous Province of Bolzano | 4 | I55 - Accommodation | C16 - Manuf. of wood products | S94 - Membership organisations | T97 - Households as employers act. | |
| ITH2: Autonomous Province of Trento | 3 | I55 - Accommodation | M72 - Scientific research & development | T97 - Households as employers act. | | |
| ITH3: Veneto | 13 | C15 - Manuf. of leather products | C32 - Other manufacturing | C14 - Manuf. of wearing apparel | C31 - Manuf. of furniture | C25 - Manuf. of fabricated metal products |
| ITH4: Friuli-Venezia Giulia | 8 | C31 - Manuf. of furniture | C24 - Manuf. of basic metals | C27 - Manuf. of electrical equipment | T97 - Households as employers act. | S96 - Other personal services |
| ITH5: Emilia-Romagna | 7 | C28 - Manuf. of machinery & equipment | C23 - Manuf. of other non-metal mineral products | T97 - Households as employers act. | M74 - Other prof., scientific, techn. act. | H52-Warehousing & support for transportation |
| ITII: Tuscany | 7 | C15 - Manuf. of leather products | T97 - Households as employers act. | C14 - Manuf. of wearing apparel | S96 - Other personal services | M69 - Legal & accounting |
| ITII2: Umbria | 5 | T97 - Households as employers act. | C14 - Manuf. of wearing apparel | S96 - Other personal services | I56 - Food & beverage services | C28 - Manuf. of machinery & equipment |
| ITII3: Marche | 10 | C15 - Manuf. of leather products | C31 - Manuf. of furniture | T97 - Households as employers act. | C27 - Manuf. of electrical equipment | C14 - Manuf. of wearing apparel |
| ITII4: Lazio | 7 | T97 - Households as employers act. | J61 - Telecommunications | M69 - Legal & accounting | M72 - Scientific research & development | H53 - Postal & courier activities |

Source: Own elaboration from Eurostat and National Statistical Offices



Table 2: Regionally relevant ecosystem nodes

| Region | Number of nodes | Node 1 | Node 2 |
|--------------------------------------|-----------------|--|-------------------|
| ITC1: Piedmont | 1 | Textile | - |
| ITC2: Valle d'Aosta | 1 | Tourism | - |
| ITC3: Liguria | 0 | - | - |
| ITC4: Lombardy | 1 | Textile | - |
| ITF1: Abruzzo | 1 | Textile | - |
| ITF2: Molise | 0 | - | - |
| ITF3: Campania | 0 | - | - |
| ITF4: Apulia | 1 | Agri-Food | - |
| ITF5: Basilicata | 1 | Agri-Food | - |
| ITF6: Calabria | 1 | Agri-Food | - |
| ITG1: Sicily | 0 | - | - |
| ITG2: Sardinia | 1 | Proximity, Social economy and Civil Security | - |
| ITH1: Autonomous Province of Bolzano | 1 | Tourism | - |
| ITH2: Autonomous Province of Trento | 0 | - | - |
| ITH3: Veneto | 1 | Textile | - |
| ITH4: Friuli-Venezia Giulia | 1 | Textile | - |
| ITH5: Emilia-Romagna | 1 | Electronics | - |
| ITI1: Tuscany | 1 | Textile | - |
| ITI2: Umbria | 1 | Textile | - |
| ITI3: Marche | 2 | Textile | Energy-renewables |
| ITI4: Lazio | 0 | - | - |

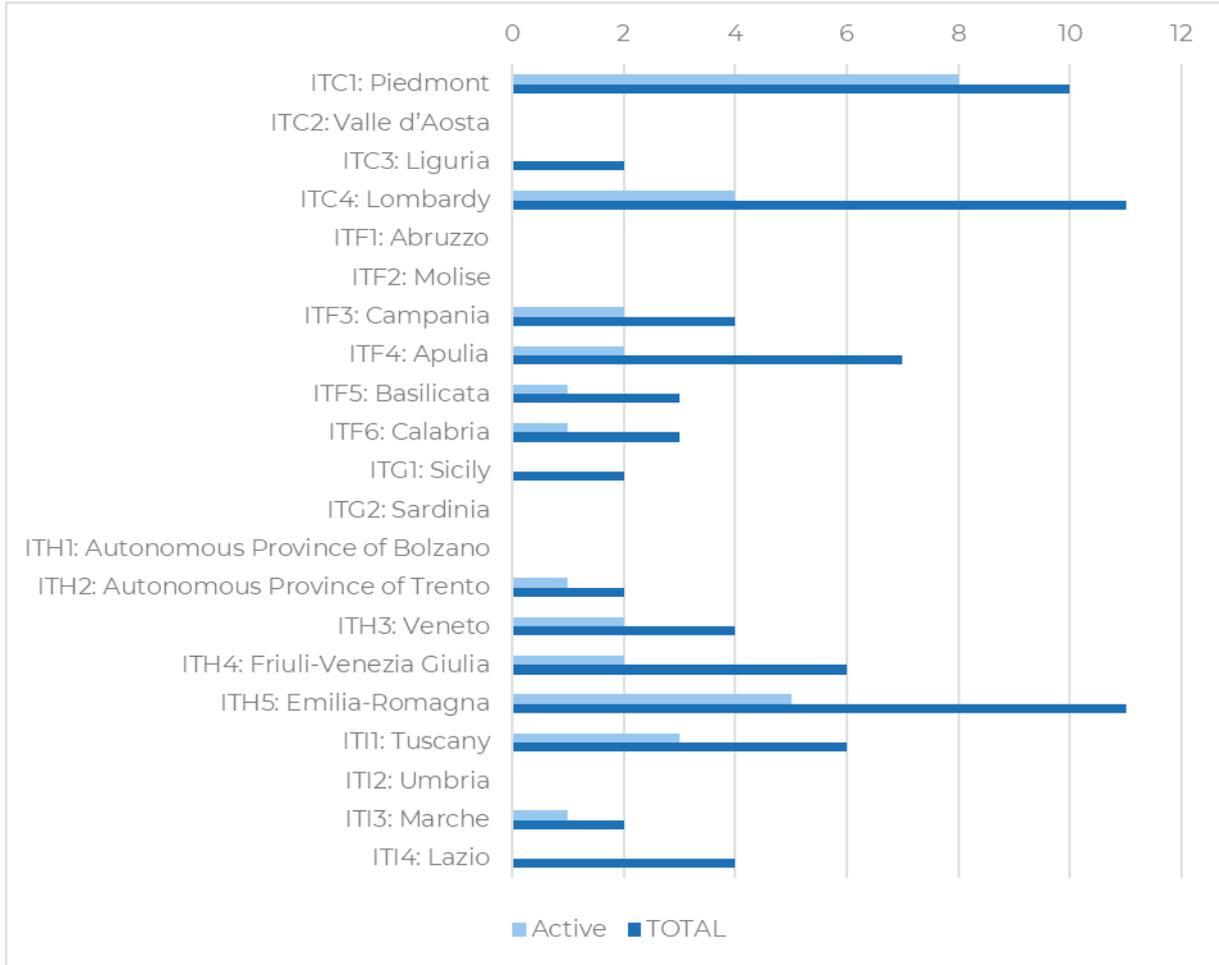
Source: Own elaboration from Eurostat and National Statistical Offices



Cluster organisations in the regions

There are 77 cluster organisations registered on the ECCP in the country, 32 of which can be considered active on the ECCP, having updated their profiles during the first half of 2021. The following graph shows the presence of cluster organisations in the different regions.

Graph 2: Cluster organisations profiled and active on the ECCP



Source: Own elaboration from Eurostat and National Statistical Offices

02

National cluster policy, programmes and initiatives



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2. National cluster policy, programmes and initiatives

| | |
|---|--|
| Policy type: | Broad policy |
| Policy name: | Strategia di Specializzazione Intelligente (SNSI) |
| <p>POLICY OBJECTIVES</p>  | <p>Strengthening cooperation between companies or industry and RTDI actors</p> <p>Increasing competitiveness and boosting scale up of SMEs</p> <p>Supporting internationalisation activities</p> <p>Fostering R&D activities, technology development and implementation</p> <p>Fostering innovation and strengthening innovation ecosystems</p> <p>Supporting the consolidation of existing cluster organisations</p> <p>Supporting the creation of new cluster organisations</p> <p>Promoting entrepreneurship, start-ups and spin-offs</p> <p>Promoting social and sustainable economy and other solidarity-based initiatives</p> <p>Promoting employment and upgrading skills and competences</p> <p>Enhancing territorial cohesion (through RIS3)</p> <p>Strengthening the network of cluster organisations/cross-clustering</p> <p>Cluster analysis and support for policymaking</p> <p>Connect to global supply chains</p> <p>The National Smart Specialisation Strategy aims at taking Italy out of economic stagnation by enriching those sectors that constitute the beating heart of the Italian economy. The Strategy then delineates activities oriented towards the development of new and innovative products and services, with a higher added value, also by looking at the emerging industries. This change is needed to boost productivity and occupation. The Strategy seeks to promote the creation of an "innovation supply chain" able to convert the knowledge stemming from research activities into a competitive advantage for the economy as well as for the wellbeing of citizens. This objective is meant to be achieved through targeted activities, such as: 1) enhancement and specialisation of the national R&D system, favouring technology transfer; 2) enhancement of human capital; 3) implementation of policies able to maximise the positive effects of knowledge spill overs; 4) implementation of innovation risk sharing policies; 5) the transition towards a new organisation of production.</p> |



| | |
|---|---|
| | <p>With regards to clusters, the Strategy foresees the dematerialisation of traditional supply chains and their reassembling in more articulated production systems, i.e. network of companies or clusters – not related to just a single economic sector. In this respect, 8 clusters were already established with a call for tenders promoted by the Ministry of Education, University and Research (Decreto Direttoriale 30 maggio 2012 n. 257).</p> <p>The focus on new modes of production by means of collaboration between different actors is also put forward by Regional Smart Specialisation Strategies, such as the one of Piemonte¹. More specifically, the Regional Strategy aims at specialising the regional system of innovation following these principles: 1) promotion of industrial sectors and citizens wellbeing; 2) strengthening the R&I system; 3) changing modes of production to make them smart and resources-efficient; 4) strengthening the interaction among private and public stakeholders.</p> |
| <p>POLICY FOCUS</p>  | <p>Cross-sectoral</p> <p>The National Strategy identifies different thematic areas which represents the new reference markets: 1) smart and sustainable industry; energy and environment; 2) health, food, quality of life; 3) digital agenda, smart communities, smart mobility; 4) tourism, cultural heritage and creative industry; 5) aerospace. Furthermore, based on the analysis of regional specificities and competences, the Strategy identifies 12 areas of regional specialisation: 1) Aerospace; 2) Agri-food; 3) Blue growth; 4) Green chemistry; 5) Design, creativity and Made in Italy; 6) Energy; 7) Smart Factory; 8) Sustainable mobility; 9) Health; 10) Smart, secure, and inclusive communities; 11) Technologies for living environments; 12) Technologies for cultural heritage.</p> <p>The 12 thematic areas stemmed from an ex-ante identification of Regional specialisation areas, also mentioned in the Regional smart Specialisation Strategies. Piemonte, for instance, identified the following: 1) Aerospace; 2) Automotive; 3) Green chemistry/cleantech; 4) Mechatronic; 5) Made in Piemonte; 6) Health and wellbeing.</p> |
| <p>RESPONSIBLE AUTHORITIES</p>  | <p>Both drafting and implementation</p> <p>Oversees the implementation</p> <p>The National Smart Specialisation Strategy is developed by the Ministry of the Economic Development together with the Ministry of the Education, University and Research. This policy is merely a framework within which policy initiatives need to be developed, it does not provide any funding. Funding is provided by specific measures, such as calls for tender.</p> <p>The National and the Regional strategies are interlinked, not only because the former stemmed from the latter, but also because the Regional strategies provide solely a framework within which policy initiatives need to be developed. Therefore, they do not provide any direct funding.</p> |
| | <p>SMEs</p> <p>Cluster organisations</p> <p>Research organisations</p> |

¹ All Italian regions have developed a Regional Smart Specialisation Strategy in order to map their technological specificities and to, in case, establish technological clusters in those thematic areas. Piemonte is here taken as example because it is characterised by a high concentration of well-performing clusters



| | | |
|---|--|---|
| <p>BENEFICIARIES</p>  | | <p>Academic institutions</p> <p>Start-ups</p> <p>Large firms</p> <p>Technology centres</p> <p>General population</p> <p>Policy makers</p> <p>The Strategy aims at the development of broad measures able to target different parts of society, including citizens. While all the selected categories are mentioned throughout the document, two specific sections are dedicated to policy makers and SMEs.</p> |
| <p>INSTRUMENTS</p>  | <p>Financial</p> | <p>-</p> |
| | <p>Technical assistance</p> | <p>Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence</p> <p>Support for networking and partnership building (at national and/or international level)</p> |
| | <p>Explanation</p> | <p>The Strategy does not provide for any form of direct funding or technical assistance. Funding and assistance have been provided through two different calls for tender for the development of National Technological Clusters. The first one in 2012 (Ministry of Education, University and Research - Decreto Direttoriale 30 maggio 2012 n. 257) with an overall budget of EUR 368 million (National budget) + EUR 40 million (of which EUR 20 million from ERDF). The second one in 2016, when the Ministry of Education, University and Research (MIUR) promoted the development of 4 more National Technological Clusters in the areas of: Cultural heritage; Design and creativity; Economy of the sea; Energy. The overall budget for the second call was of EUR 3,000,000 (National budget).</p> <p>Similarly, the Regional Smart Specialisation Strategy of Piemonte, as well as the strategies from the remaining Italian regions, does not provide for any form of direct funding or technical assistance. Funding and assistance have been provided through a call for tender in 2016 (Regione Piemonte BU2 14/01/2016) with an overall budget of EUR 5,650,000. ERDF contributed to the overall budget with EUR 2,500,000, whereas the Regional and National governments provided for the rest.</p> |
| <p>HISTORY</p>  | <p>Period</p> | <p>Unlimited period</p> |
| | <p>Ending year (for policies with limited period)</p> | <p>-</p> |
| | <p>Starting year</p> | <p>2016</p> |



| | | |
|--|--------------------------|---|
| | Explanation | The National Strategy has been approved by the EU Commission in 2016 and has not been updated since. |
| BUDGET | Overall | The National Strategy does not foresee any direct investment. |
| | Annual | - |
| | Source of funding | <p>The National Strategy does not entail any form of direct funding.</p> <p>The 2012 call for tenders had an overall budget of EUR 368 million (National budget) + EUR 40 million (of which EUR 20 million from ERDF). The 2016 national call for tender had a budget of EUR 3,000,000 coming from the national budget.</p> |
| POLICY EVALUATION | Availability | In-itinere |
| | Results | The share of companies focused on at least one of the 12 thematic areas grew by 2.7% in 2017, compared to 2015. The area with the highest share of companies is Design, creativity and Made in Italy. When comparing the 12 thematic areas and NACE sectors, there is a higher concentration of companies in the electronic, optical, machines and services industries. Companies that belong to the 12 areas are mostly located in the North-west (29.7%) and North-east (25.9%). Companies specialised in one of the thematic areas tend to have higher labour productivity and turnover. They also tend to grow bigger in term of employees. In terms of innovation, 51% of "smart specialisation" companies have introduced new technologies, 43% have created new products, 36% have introduced new internal organisation. |
| POLICY ALIGNMENT WITH THE EU PRIORITIES | | Green economy Digitalisation Social inclusion |

03

State of play of cluster policy





3. State of play of cluster policy

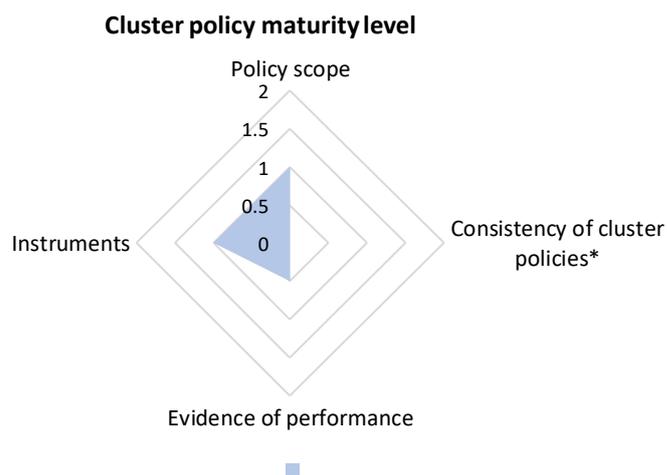
The data below illustrates how the country ranks in terms of maturity of cluster policy. The maturity index is based on a combination of factors presented in Chapter 2 and which are scored based on their existence:

- **Policy scope:** whether the country has a dedicated cluster policy, or cluster creation and/or development is targeted through broader policies (existence of broader policies = 1 point; existence of targeted cluster policies = 2 points)
- **Consistency of cluster policies:** assessment of the duration and experience of the country in doing cluster policies. This dimension assesses only existing cluster policies and not broader policies (no cluster policies available = 0 points; < 10 years of experience or > 10 years (but interrupted) = 1 point; > 10 years (but with clear continuity = 2 points)
- **Evidence of performance:** the existence of monitoring and evaluation mechanisms determines the degree of policy development in the country (no evaluations = 0 points; existence of evaluations of past policies or in-itinere = 0.5 points; existence of ex-ante and/or ex-post evaluations = 0.5 points)
- **Instruments:** whether the policies provide any instruments to support the policy implementation, being these financial and/or technical assistance (1 point for each type of instrument available)

It is important to note that the maturity does not reflect the performance of a country, but only the degree of development of their cluster policy at the moment when the data was collected (2020). The maturity index illustrates how the country scores for each of these four dimensions (policy scope, consistency of cluster policies, evidence of performance and instruments) compared to the maximum score that they can reach.

| | Italy | Maximum score |
|----------------------------------|-------|---------------|
| Policy scope | 1 | 2 |
| Consistency of cluster policies* | 0 | 2 |
| Evidence of performance | 0,5 | 1 |
| Instruments | 1 | 2 |

* This dimension is scored solely if the country has a dedicated cluster policy and it assesses only cluster policies





| State of play of cluster policy in the country | |
|--|--|
| Policy evaluation (for terminated policies) | <p>No policy evaluation</p> <p>Cluster policies are rather new in Italy, as before the terminology used referred to "industrial districts", which, however, lack the aspect of knowledge spill overs and the involvement of public and private research entities. The concept of "Industrial districts" was developed within industrial economics studies by the end of 1980s in order to display the specificity of production systems located in a demarcated area and internationally highly competitive. They are typically based on collaborative networks of SMEs. National Technological Clusters tend instead to go beyond territorial borders as to create highly skilled national and supra-national platforms with vertical specialisations.</p> |
| Policy approach in the country | <p>Policy support for the activities of cluster organisations</p> <p>Cluster approach used directly by national/regional development agencies</p> |
| Continuity | <p>In order to facilitate the implementation of the EU Commission Smart Specialisation Strategy (2014) - which promotes the integration of research, development, and innovation policies across European, National and local governments - the relevant national public institutions (Ministry of Economic Development, Ministry of Education, University and Research) spurred Regions to develop their own Smart Specialisation Strategies. The goal was twofold: to support regions in the process of establishing a tailored development strategy based on smart technologies, and to create the instance for a durable collaboration between national and regional authorities.</p> <p>The 2014-2020 programming period of cohesion policy has then focused on the socio-economic development of territories by means of industrial innovation - run through multi-level and multi-stakeholder's governance. This mode of governance was best suited for the identification of priority areas of intervention within the field of R&D able to complement the specific production systems of territories.</p> <p>The National Smart Specialisation Strategy brings together all the investment priorities identified at regional level, ensuring the complementarity of national and regional level measures. The objective is to create new value chains that, stemming from R&D, lead to the generation of new products/services and to the development of key enabling technologies. Within this context, clusters are understood as associations of businesses, professionals, universities and other public/private institutions in the field of innovation, organised around General Purpose Technologies, i.e. pervasive technologies applicable to all economic sectors and society, and able to boost sustainable economic growth of territories.</p> <p>Before the launch of the Smart Specialisation Strategy of 2014, the EU funding programme for research and innovation - Horizon 2020 (2011) delineated new priorities for the economic development of Member States. Back then (hence before the launch of the National Smart Specialisation Strategy), and in line with these new priorities, the Ministry of Education, University and Research promoted the establishment of 8 National Technological Clusters, with the objectives of: 1) simultaneously mobilize the excellence of the industrial system, the world of research and the regional and national public administration on shared issues, considered to be priority and strategic for the country in the medium and long term; 2) promoting the sharing and transfer of knowledge and skills between the various players in the industrial system and research; 3) optimize the use of available public economic resources; 4) improve the capacity to attract investments and talents, including through internationalization processes; 5) promoting the sustainable economic growth of the territories and of the entire national economic system; 6) play a major role in the European and international panorama in terms of research and innovation; 7) enhance the excellence of the "Made in Italy" branding.</p> <p>The 8 clusters identified in 2012 (through a call for tenders) belong to the following strategic areas of development: 1) aerospace; 2) agri-food; 3) green chemistry; 4) smart factory; 5) Land and marine surface mobility equipment and systems; 6) life sciences; 7) technologies for living environments; 8) technologies for smart communities. The clusters development fund amounted to EUR 368 million. In 2016 the Ministry of Education, University and Research (MIUR) promoted the development of 4 more National Technological Clusters in areas of development: Cultural heritage; Design and creativity; Economy of the sea; Energy.</p> |
| Consistency | <p>No cluster policy available</p> <p>The first measure implemented with explicit reference to clusters dates back to 2012.</p> <p>All Italian regions have developed a Smart Specialisation Strategy in order to map their technological specificities and to, in case, establish technological clusters in those thematic areas. Piemonte has been chosen because it is characterised by a high concentration of well-performing clusters.</p> |

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