



EUROPEAN CLUSTER
COLLABORATION PLATFORM

Country factsheet

Luxembourg

An initiative of the European Union





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Introduction



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



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.

The COVID-19 pandemic has caused an unprecedented economic shock to the European and global economy. In response, policymakers at EU and national level have acted decisively and at short notice to make available very significant financial resources, notably through the Recovery and Resilience Facility, to tackle the threat of a prolonged downturn. [National recovery and resilience plans](#) have been drafted in each Member State to ensure a recovery that addresses the challenges identified in the European Semester. The national recovery and resilience plan for Luxembourg, endorsed by the European Commission on 18 June 2021, do not refer directly to clusters in order to support the implementation of the investment and reform measures presented.

01

Industrial ecosystems and cluster landscape



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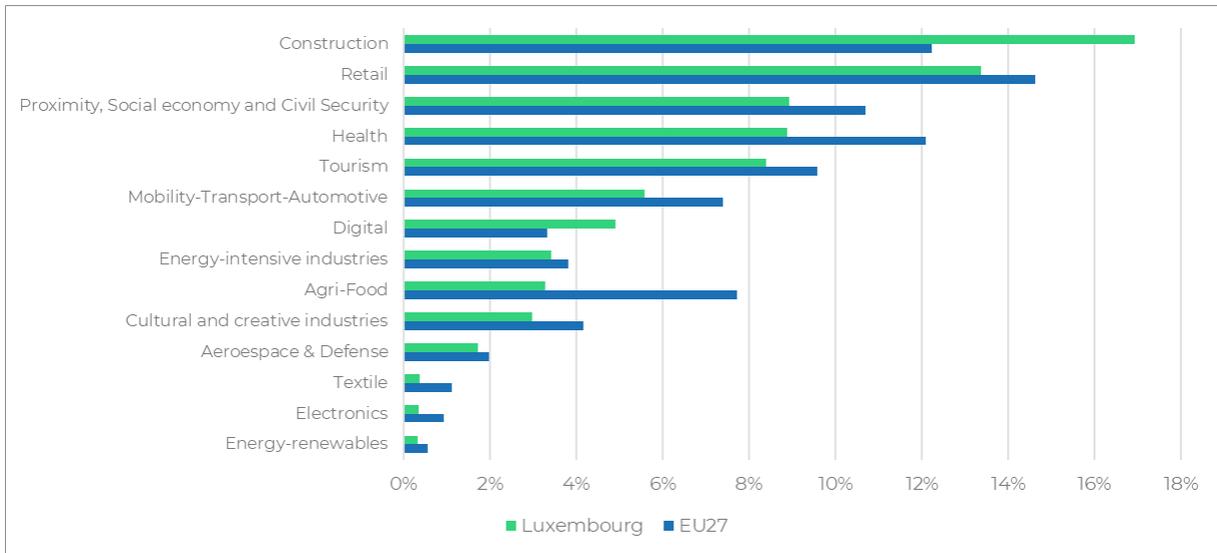


1. Industrial ecosystems and cluster landscape

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 9 in the country, while the second table is based on the 14 ecosystems, which total 0 in the country.

Table 1: Regionally relevant sectoral nodes

Region	Number of nodes	Node 1	Node 2	Node 3	Node 4	Node 5
LU: Luxembourg	9	U99 - Extraterr. organisations & bodies	K64 - Financial services	K66 - Auxiliary financial activities	J61 - Telecommunications	M69 - Legal & accounting

Source: Own elaboration from Eurostat and National Statistical Offices

Table 2: Regionally relevant ecosystem nodes

Region	Number of nodes	Node 1
LU: Luxembourg	0	-

Source: Own elaboration from Eurostat and National Statistical Offices

Cluster organisations in the country

There are no cluster organisations registered on the ECCP in the country.

02

National cluster policy, programmes and initiatives



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2. National cluster policy, programmes and initiatives

Policy type:	National cluster policy
Policy name:	Luxembourg Cluster Initiative
POLICY OBJECTIVES 	<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>Enhancing the visibility of clusters 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 employment and upgrading skills and competences</p> <p>Strengthening the network of cluster organisations/cross-clustering</p> <p>The Luxembourg Cluster Initiative aims to bring together various clusters and innovation networks based in the country to: foster communication and the exchange of knowledge and know-how between cluster and innovation network members; stimulate the development and implementation of collaborative projects on a national, European and an international level; enhance the visibility of the technological excellence and the innovation potential of cluster and innovation network members; and, encourage the uptake of new technologies and the identification of potential business opportunities. Ultimately, the Initiative is expected to boost competitiveness through innovation, as well as to highlight the capabilities of Luxembourg's dynamic innovation community.</p>
POLICY FOCUS 	<p>Cross-sectoral</p> <p>The focus of the Luxembourg Cluster Initiative is placed on strategic technology domains identified as being important to further boost already successful economic fields in Luxembourg as well as to develop new synergies which show the greatest potential for the future sustainable development of the national economy. So far, the domains are Eco-Innovation Technologies; Healthcare and Biotechnologies; Information & Communication Technologies; Materials Technologies; and, Space Technologies, Logistics and Maritime activities</p>



Policy type:	National cluster policy
Policy name:	Luxembourg Cluster Initiative
RESPONSIBLE AUTHORITIES 	<p>In charge of drafting</p> <p>In charge of implementation</p> <p>Provides funding</p> <p>Oversees the implementation</p> <p>The Ministry of Economy is responsible of drafting, providing funds and overseeing the implementation, while Luxinnovation, (the national agency for the promotion of innovation and research) is in charge of the implementation.</p>
BENEFICIARIES 	<p>SMEs</p> <p>Cluster organisations</p> <p>Research organisations</p> <p>Academic institutions</p> <p>Start-ups</p> <p>Large firms</p> <p>Technology centres</p> <p>The beneficiaries are cluster organisations, SMEs, large companies and public research institutions and to a large extent, other actors in involved in the cluster organisations and their activities.</p>



Policy type:		National cluster policy
Policy name:		Luxembourg Cluster Initiative
INSTRUMENTS 	Financial	<p>Funding collaboration initiatives</p> <p>Support to R&D projects, SMEs becoming cluster members, etc.</p> <p>Subsidies to hire personnel</p> <p>Subsidies for cluster infrastructure (e.g. offices, equipment)</p> <p>Financing networking events</p> <p>Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects)</p> <p>Financing start-ups</p> <p>Innovation: voucher, support to hire PhDs, cooperation with R&I actors</p>
	Technical assistance	<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>Marketing activities: advertising, communication, events, fairs, and so on</p>
	Explanation	<p>The Luxembourg Cluster Initiative supports beneficiaries in the identification of their specific needs and provides guidance towards the most appropriate solutions from a wide range of internal services or redirecting them to the most relevant partners. Beneficiaries can access cluster knowledge, resources and networks to optimise their know-how expertise and build on better processes, higher productivity and increased cooperative RDI, which will enable them to access to potential new markets or new growth opportunities. In a collaborative and cross-sectoral way, the Cluster initiative offers support to develop, from an innovative idea, and in collaboration with other private or public partners, a flagship project to contribute to the development of the ecosystem and, beyond, the national economy.</p> <p>There two national funding programmes targeting cluster organisations: Investment Aid for Innovation Clusters, to support the construction or upgrade of innovation clusters, financing the costs in intangible and tangible assets, and Aid For The Operation Of Innovation Clusters, funding the operational costs of cluster organisations, in particular, it covers 50% of the personnel and administrative costs (including overhead costs).</p>



Policy type:		National cluster policy
Policy name:		Luxembourg Cluster Initiative
HISTORY 	Period	Unlimited period
	Ending year (for policies with limited period)	-
	Starting year	2002
	Explanation	No information provided about the ending year.
BUDGET 	Overall	The information is not publicly available.
	Annual	The information is not publicly available.
	Source of funding	Ministry of Economy
POLICY EVALUATION 	Availability	No policy evaluation
	Results	<p>In 2014, the Initiative set the following objectives: to contribute to the creation of 3,000 new jobs and 300 new companies by 2020, but no evaluation has been conducted thus far.</p> <p>“The objectives of the next performance contract (2018-2021) are being finalised. We are aiming for some 200 collaborative projects from cluster activities to be implemented or to be supported by cluster management. 40 of these projects will benefit from national RDI-type financing, four of which will be the subject of a public-private partnership and two of which are for RDI-type innovation clusters or research infrastructure” Johnny Brebels, Head of Cluster Initiative & Flagship Projects, Luxinnovation</p>
POLICY ALIGNMENT WITH THE EU PRIORITIES 		Green economy Digitalisation

03

State of play of cluster policy





3. State of play of cluster policy

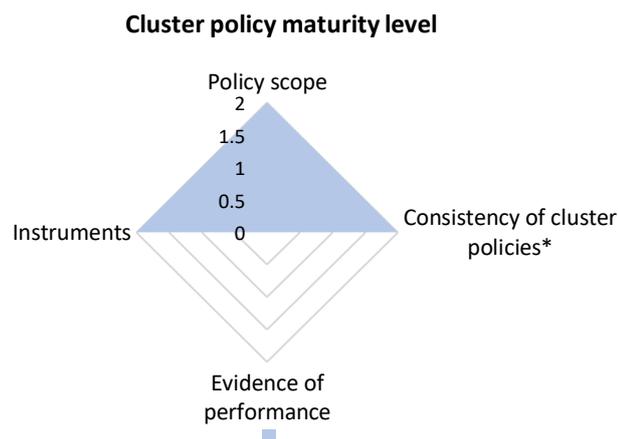
The data below illustrates how the country ranks in terms of maturity of cluster policy. The maturity index is based on a combination of factors presented in Chapter 2 and which are scored based on their existence:

- **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.

	Luxembourg	Maximum score
Policy scope	2	2
Consistency of cluster policies*	2	2
Evidence of performance	0	1
Instruments	2	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)	No policy evaluation
	There were no previous policies.



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> <p>Specific policies to support cooperation projects</p>
Continuity	<p>Cluster policy was first implemented in 2002 with the creation of the Luxembourg Cluster Initiative, which has continued uninterrupted until now.</p>
Consistency	<p>> 10 years (but with clear continuity)</p> <p>The Luxembourg Cluster Initiative is one of the key elements of the National R&D and Innovation Policy, which aims to develop cutting edge technologies whilst supporting Luxembourg’s current technological expertise and providing impetus for the further development of national centres of excellence. It dates from 2002 and has remained active since then with only a major change. In 2013, the cluster policy was structured in five pillars for enhanced cluster activities, namely: 1. Business development, 2. Internationalisation, 3. Flagship projects, 4. Branding, and 5. Prospection and promotion, which are still relevant today.</p>

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