EUROPEAN CLUSTER COLLABORATION PLATFORM

Country factsheet

Netherlands

An initiative of the European Union

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Content

01

Introduction and economic policy context

1. Introduction and economic policy context

This document presents an overview of the cluster policy in the Netherlands. 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 the Netherlands.

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 Dutch cluster policy can help to tackle the economic policy challenges identified in the European Semester country recommendations.

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. In the Netherlands, the national plan has not yet been drafted as the current caretaker government has left this task for the next Government which, at the time of writing, is still in the process of being formed since the elections of November 22 2023.[1] In addition to the COVID-19 pandemic, the ongoing Russian military aggression against Ukraine has also taken its toll on the Dutch economy, driving prices for energy and other traded goods & commodities higher. This can be seen in the post-pandemic economy rebound of 5.0% in 2021 slowing down to 2.8%, 1.5% and 1.7% in 2022, 2023 and 2024, respectively. This domino effect has impacted other EU companies and industrial ecosystems alike, highlighting the significance of policy efforts in supporting SMEs and clusters.

The OP ERDF 2021-2027 of North Netherlands includes support for innovation clusters, including between enterprises, research institutions, public authorities and business networks, mainly for the benefit of SMEs (4.873.179,00€ in more developed regions + 14.319.997,00€ in transition regions). In the OP ERDF of East Netherlands, support for specific cluster activities is possible within the programme 2021-2027, as part of an innovation/valorisation project, but not as a stand-alone project. The OP ERDF 2021-2027 of South Netherlands includes support for innovation clusters, including between enterprises, research institutions, public authorities and business networks, mainly for the benefit of SMEs (budget: 9.216.808,00€). The OP ERDF 2021-2027 of West Netherlands does not mention cluster organisations.

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

1) an overview of the industrial ecosystems and cluster landscape in the Netherlands
2) an overview of the national cluster policy,
3) assessment of the state of Dutch cluster policy and its role in broader economic policy challenges mentioned in the European Semester Reports.

[1] Dit zijn de uitslag en opkomst van de Tweede Kamerverkiezingen in jouw gemeente - NRC

02

Industrial ecosystems and cluster landscape

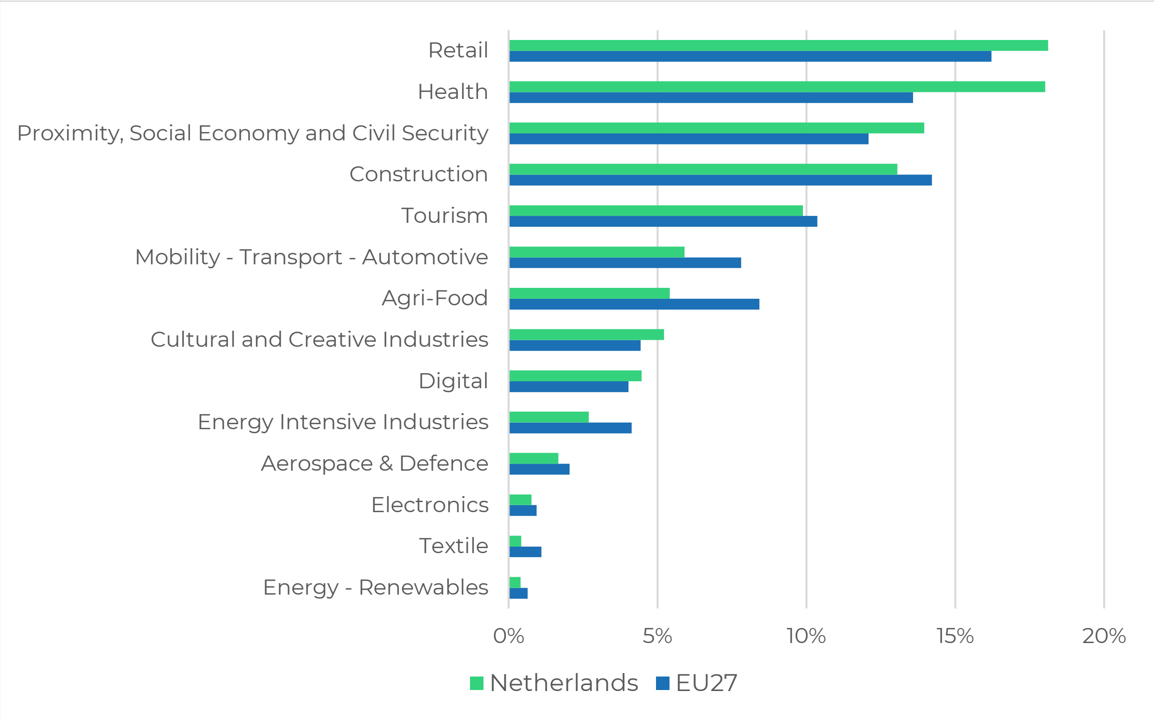
2. Industrial ecosystems and cluster landscape

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.[2] The classification of the 14 industrial ecosystems have been calculated by aggregating NACE 2 -digit activities, following the methodology established in the European Commission.[3] 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 Figure 1, the employment share of the Netherlands 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. This figure underlines the Dutch employment strength in several industry ecosystems. The highest employment shares in the industrial ecosystems in the Netherlands are found in the ecosystems "Retail", "Health" and "Proximity & Social Economy". In these industrial ecosystems, the Dutch employment share is also above the average of the EU27 Member States. Other industrial ecosystems where the Dutch employment share is above the EU27 average are "Cultural and Creative Industries" an "Digital".

Figure 1: Employment in the ecosystems



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

[2] see here for more information https://clustercollaboration.eu/in-focus/industrial-ecosystems (last access 09.01.2023).
[3] see European Commission (2021): Annual Single Market Report, SWD(2022)

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 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.[4] The following tables show the total number of regionally relevant agglomerations in each region in the country and identifies the top five most specialised of these agglomerations. The first table focuses on the 88 NACE 2-digit activities or sectors, totalling 53 in the country, while the second table is based on the 14 ecosystems, which total 5 in the country.

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

Region	# of agglomerations	Agglomeration 1	Agglomeration2	Agglomeration3	Agglomeration4	Agglomeration5
NL11: Groningen	4	N78 - Employment activities	Q87 - Residential care	Q88 - Social work without accommodation	Q86 - Human health activities	-
NL12: Friesland	3	N78 - Employment activities	Q87 - Residential care	Q88 - Social work without accommodation	-	-
NL13: Drenthe	3	N78 - Employment activities	Q87 - Residential care	Q88 - Social work without accommodation	-	-
NL21: Overijssel	2	N78 - Employment activities	Q87 - Residential care	-	-	-
NL22: Gelderland	3	N78 - Employment activities	Q87 - Residential care	M70 - Activities of head offices	-	-
NL23: Flevoland	3	N78 - Employment activities	Q87 - Residential care.	G46-Wholesale trade except motor vehicles	-	-
NL31: Utrecht	9	M70 - Activities of head offices	N78 - Employment activities	J62 - Computer programming, consultancy	Q87 - Residential care activities	R90 - Creative, arts and entertainment activities
NL32: North Holland	11	H51 - Air transport	M73 - Advertising & market research	N78 - Employment activities	M74 - Other prof., scientific, techn. act.	M70 - Activities of head offices
NL33: South Holland	3	N78 - Employment activities	Q87 - Residential care	M70 - Activities of head offices	-	-
NL34: Zeeland	5	C20 - Manuf. of chemical products	N78 - Employment activities	I55 - Accommodation	C33 - Repair and installation of machinery and equipment	-
NL41: North Brabant	4	N78 - Employment activities	Q87 - Residential care	C28 - Manufacture of machinery and equipment n.e.c.	M70 - Activities of head offices	-
NL42: Limburg	3	N78 - Employment activities	Q87 - Residential care	C20 - Manuf. of chemical products	-	-

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

[4] 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).

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.

In the Netherlands, the ecosystem agglomerations are concentrated in two geographic areas. The first is located in the Northern Netherlands, namely in the regions of Groningen (NL11) and Drenthe (NL13) and centred on health ecosystem agglomerations. In Groningen, the ecosystem is specifically linked to a sectoral NACE agglomeration in human health activities (Q86). In Drenthe, the health ecosystem is based on the NACE agglomerations in residential care and social work (Q87-88), which it shares with Groningen.

The second group of ecosystem agglomerations is found in the Randstad metropolitan agglomeration area in the regions of Utrecht (NL31) and North Holland (NL32). The digital ecosystem agglomerations in Utrecht is related to the NACE agglomerations in computer programming and consultancy (J62) there. The North Holland region around Amsterdam is home to an ecosystem agglomeration in cultural and creative industries, which shows up among its numerous NACE sectoral agglomerations in advertising and market research (M73) as well as other professional, scientific and technical activities (M74) in its top 5 agglomerations, but also in its sectoral agglomeration in creative, arts and entertainment activities ranking sixth.

Table 2: Regionally relevant ecosystem agglomerations and Top 5 agglomerations by region

Region	# of ecosystem agglomerations	Agglomeration 1	Agglomeration 2
NL11: Groningen	1	Health	
NL12: Friesland	0	-	
NL13: Drenthe	1	Health	
NL21: Overijssel	0	-	
NL22: Gelderland	0	-	
NL23: Flevoland	0	-	
NL31: Utrecht	1	Digital	
NL32: North Holland	2	Cultural and creative industries	Digital
NL33: South Holland			
NL34: Zeeland	0	-	
NL41: North Brabant	0	-	
NL42: Limburg	0	-	

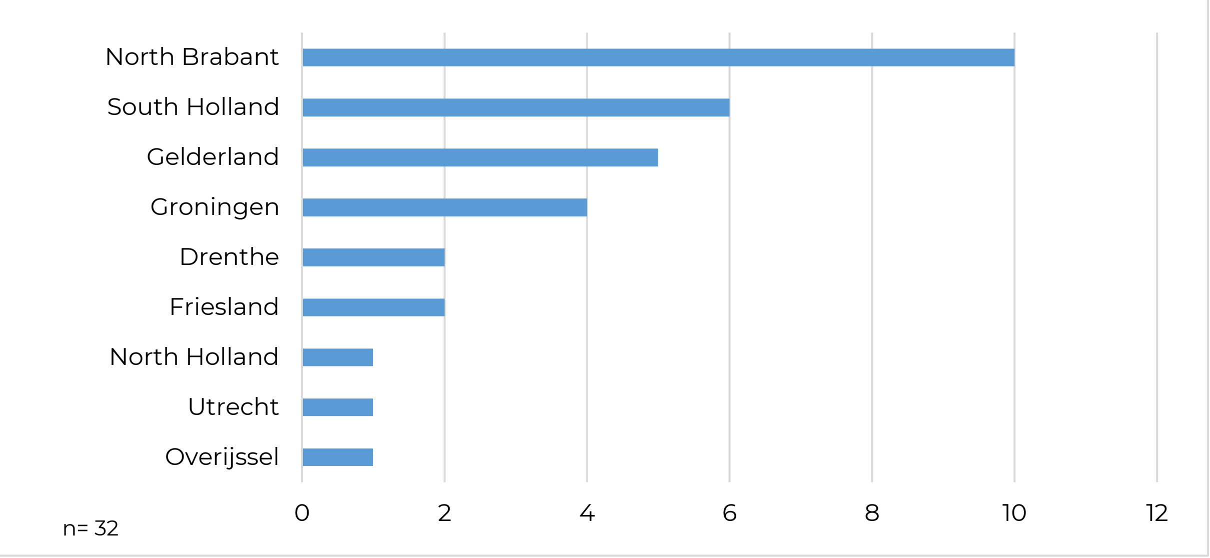
Source: ECCP (2023), own elaboration based on data from Eurostat.

2.3 Cluster organisations & interregional cooperation

Cluster organisations in the regions

There are 32 cluster organisations registered on the ECCP in the Netherlands. The majority of these cluster organisations is located in North Brabant (10 cluster organisations) followed by South Holland (6 cluster organisations) and Gelderland with 5 registered cluster organisations. 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 (83%, EU: 83%) followed by large enterprises (11%, EU: 9%) and research organisations (6%, EU:7%) constitute the majority of member organisations of Dutch cluster organisations with profiles on the ECCP. From a thematic perspective, these Dutch cluster organisations are operating in the industrial ecosystems listed 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. To some extent, this reflects the Dutch strengths in terms of employment (e.g., in "Health") that were outlined before.

- Health (3 cluster organisations)
- Agri-food (3 cluster organisations)
- Aerospace & Defence (1 cluster organisation)
- Mobility-Transport-Automotive (1 cluster organisation)

Interregional cooperation

In the 2014-2020 funding period[5], the European Cluster Partnerships and the INNOSUP-1 initiative have been launched by the European Commission to encourage clusters from Europe to intensify

[5] 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

collaboration across regions and sectors. Dutch cluster organisations have been involved in 15 consortia of the European Strategic Cluster Partnerships of which 12 partnerships were focusing on internationalisation (ESCP-4i) and three on partnerships were on cluster management excellence (ESCP-4x). Consortia partners came from 11 different EU member states (FR, IT, BE, DK, ES, SE, EL, FI, SI, PT, HU). 13 Dutch cluster organisations participated in the INNOSUP-1 initiative, with partner organisations coming from 17 countries (BE, DE, EL, IE, LT, LU, RS, UK, FR, NO, SE, CZ, IL, PL, DK, PT, HU).

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 the Netherlands, three cluster organisations are part of three Euroclusters with partners from 11 countries (EE, ES, DE, PL, FR, BE, FI, CZ, SE, AT, BG). These Euroclusters are BioMan4R2, CircInWater and Silicon Eurocluster. Collectively, they cover four industrial ecosystems ("Health", "Renewable Energy", "Agri-food", "Electronics"). The CircInWater Eurocluster covers multiple ecosystems ("Renewable Energy", "Agri-food).[6]

[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

3. National cluster policy, programmes and initiatives

In this section we provide an overview of the existing Dutch cluster policies on a national 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 column represents the case of "*Topsectorenbeleid*", a Dutch national cluster policy.

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

Table 3: Overview of Dutch cluster policy

Policy type:	National cluster policy
Policy name:	Topsectorenbeleid
POLICY OBJECTIVES	**Strengthening cooperation between companies or industry and RTDI actors** **Increasing competitiveness and boosting scale up of SMEs** **Fostering R&D activities, technology development and implementation** **Fostering innovation and strengthening innovation ecosystems** **Supporting the consolidation of existing cluster organisations** **Promoting social and sustainable economy and other solidarity-based initiatives**
	Since 2010, there is a cluster policy in the Netherlands focusing on 9 top sectors where the Netherlands excels in (agro-food, high tech, water, creative industries, chemicals, life sciences, energy, logistic, horticulture). The approach can be characterised as sectoral networking programmes as it focuses on networking among specific groups of companies and other actors and develops action agendas for specific sectors or technology domains. The clusters are in principle national in orientation, but some have a very strong regional concentration.
POLICY FOCUS	**Sectoral**
	The focus of the policy lies on the 9 top sectors individually. However, on top of this, there are two transversal focuses: "Headquarters", which refers to ensuring the Netherlands as an attractive headquarters of internationally operating

Policy type:	National cluster policy
Policy name:	Topsectorenbeleid
	companies and transversal themes that correspond to the so-called "Grand Challenges" of the seventh framework programme and Horizon 2020
RESPONSIBLE AUTHORITIES	**In charge of drafting** **Provides funding** **Oversees the implementation**
	The policy is initiated by the national Ministry of Economic Affairs and Climate, which also provides some forms of funding and monitors the implementation. However, business has been heavily consulted in the design of the policy and much of the actual implementation of the policy is left to them as well.
BENEFICIARIES	**SMEs** **Research organisations** **Academic institutions** **Start-ups** **Business associations** **Technology centres** **Cluster organisations** **NGOs**
	The principle of the policy is that a triple helix (or golden triangle) of partners coming from government, business and knowledge institutions is forming the core of the stakeholders involved, while several other actors benefit from the policy as well.
INSTRUMENTS Financial	**Support to R&D projects, SMEs becoming cluster members, etc.** **Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects)**

Policy type:		National cluster policy
Policy name:		Topsectorenbeleid
		Financing networking events
	Technical assistance	**Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence** **Support for soft skills development: coaching, management training, upskilling/reskilling** **Marketing activities: advertising, communication, events, fairs, and so on**
	Explanation	The policy only includes financial instruments, mostly related to taxation and subsidising initiatives designed by the businesses themselves. There is no non-financial/technical support available.
HISTORY	**Period**	**Unlimited period**
	Ending year *(for policies with limited period)*	
	Starting year	2010
	Explanation	
BUDGET	**Overall**	Data Unavailable
	Annual	Data Unavailable
	Source of funding	National budget
	Availability	**Existence of monitoring and ex-ante or ongoing / interim evaluation**

Policy type:		National cluster policy
Policy name:		Topsectorenbeleid
POLICY EVALUATION	**Results**	Every year, in September, a progress report on the Top Sectors policy is presented to Parliament. This consists of a letter to the House of Representatives on the progress of the business policy including the top sectors and a Business Policy Monitor of the Central Bureau for the Statistics (CBS), which outlines the most important facts and figures and an (economic) interpretation where possible.
POLICY ALIGNMENT WITH THE EU PRIORITIES		**Green economy** **Digitalisation** **Resilience**

Source: ECCP (2023).

04

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

EUROPEAN CLUSTER COLLABORATION PLATFORM

Strengthening the European economy through collaboration

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 Dutch 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** Dutch **cluster policy** for 2023.

Table 4: State of play

The Netherlands	State of play
POLICY SCOPE	Absence of cluster policy
	Broad policy
	Sectoral policy
	National and/or regional cluster policy
CONTINUITY	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
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).

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

Policy scope

Generally coordinated and organised on a national level, the *Topsectorenbeleid* can be categorised as a national cluster policy. Nevertheless, the focus of the policy lies on the 10 top sectors, respectively. These 10 top sectors include:

- Agri & Food
- Chemistry
- Creative industry
- Energy
- Life sciences & health
- High Tech Systems & Materials
- ICT
- Logistics
- Horticulture & Starting Materials
- Water & Maritime

Continuity

At least since 2004, the Netherlands has had a cluster policy which has been gradually developed and expanded. In the first six years, five sectors were covered (agro-food, high tech, water, creative industries, chemicals). Since 2010, four additional sectors (life sciences, energy, logistic, horticulture) were added. There has thus been a certain continuity since the start of the policy. Going forward, there is already a policy in place for the period 2020-2023 in the form of a Knowledge and Innovation Covenant made by the three partners with a committed budget of approximately EUR 4.9 billion, of which EUR 2.05 billion from private and EUR 2.85 billion from public funds. The focus of this Covenant lies on mission-based funding around four core themes (energy transition and sustainability; agriculture, water and food, health and care; and safety).

Evidence of performance

The most important evaluation of the policy is done by the Advisory Council for Science, Technology, and Innovation (AWTI) which is publishing a periodically recurring report to evaluate the policy. The latest one was published in 2016. The main recommendations included in the report are to show more flexibility, to have a more differentiated approach, and to make clearer choices. The government itself is also monitoring the implementation, focusing on input (i.e. budget), output (i.e. development of private R&D expenditure), second order effects (innovative products and related turnover) and third order effects (i.e. employment and economic development). Because most of these effects are only visible after a few years, the Ministry of Economic Affairs focuses on a broad monitoring of the progress of its business policy and in a communication strategy that focuses on entrepreneurs, directors, MPs, researchers, and other interested parties. Every year, in September, a progress report on the Top Sectors policy is presented to Parliament. This consists of a letter to the House of Representatives on the progress of the business policy including the top sectors and a Business Policy Monitor of the Central Bureau for the Statistics (CBS), which outlines the most important facts and figures and an (economic) interpretation where possible

Cluster support instruments

The policy only includes financial instruments, mostly related to taxation and subsidising initiatives designed by the businesses themselves. There is no non-financial/technical support available.

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 Dutch 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 the Netherlands[7] has been analysed across policy areas relevant to cluster policy. The results point to a series of issues where cluster policy can play a role in addressing the country's economic challenges.

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

Policy area	Challenges	Cluster policy
SKILLS	• Structural weaknesses in the labour market • Labour and skill shortages. • Improvement of up- and reskilling opportunities	The Dutch National cluster policy ‘*Topsectorenbeleid*’ includes technical support for development of hard and soft skills as well as upskilling and reskilling. In this context, the top sectors have also developed the “Roadmap Human Capital Topsectoren 2020 – 2023” which aims at achieving a thriving working population. Here, research also 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]
GREEN TRANSITION	• Increase sustainability in the agriculture sector a • Increase the deployment of renewable energy	The ‘*Topsectorenbeleid*’ already focuses sectors such as “Agri & Food” and “Energy” which a key for the green transition in general and specifically also with regards to the recommendations from the European Semester Report for the Netherlands 2023. For instance, the top sector Agri & Food is also focusing (among others) on project related to sustainability in the agrifood sector. The top sector Energy has a strong focus on renewable energy and conducts projects (among other) in the area of green hydrogen.[10] Studies show that clusters can play a vital role in the green transition of the economy [11] and 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.[12]

Source: ECCP (2023)

[7] https://economy-finance.ec.europa.eu/system/files/2023-05/NL_SWD_2023_619_en.pdf (last access 12.01.2024).
[8] Hsu, M.-S et al. (2014).
[9] European Expert Group on Clusters (2020).
[10] https://topsectorenergie.nl/en/projects/ (last access 24.05.2024)
[11] Lis, A. & Mackiewicz, M. (2023).
[12] Hatch et al. (2017).

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Annex

Table 6: 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).