

Country factsheet

Norway

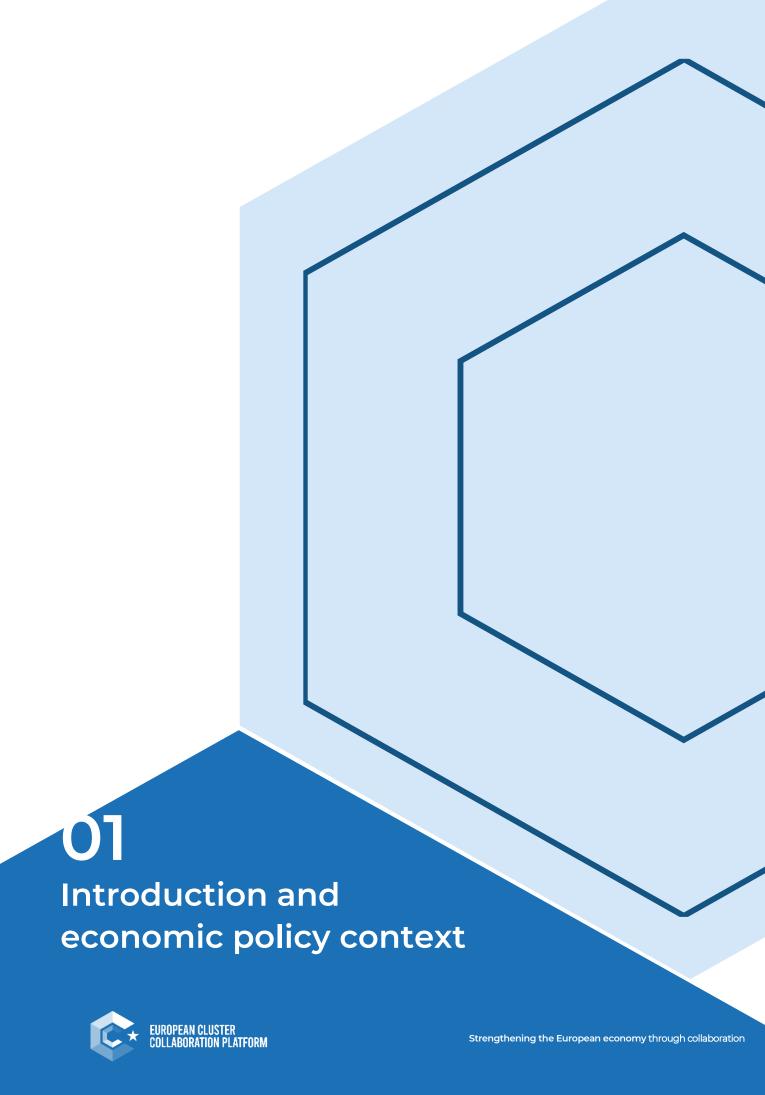




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1. Introduction and economic policy context



This document presents an overview of the cluster policy in Norway. 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 OECD Economic Survey: Norway 2019. The "Economic Surveys" present the major challenges faced by the country, evaluate the short-term outlook, and make specific policy recommendations.

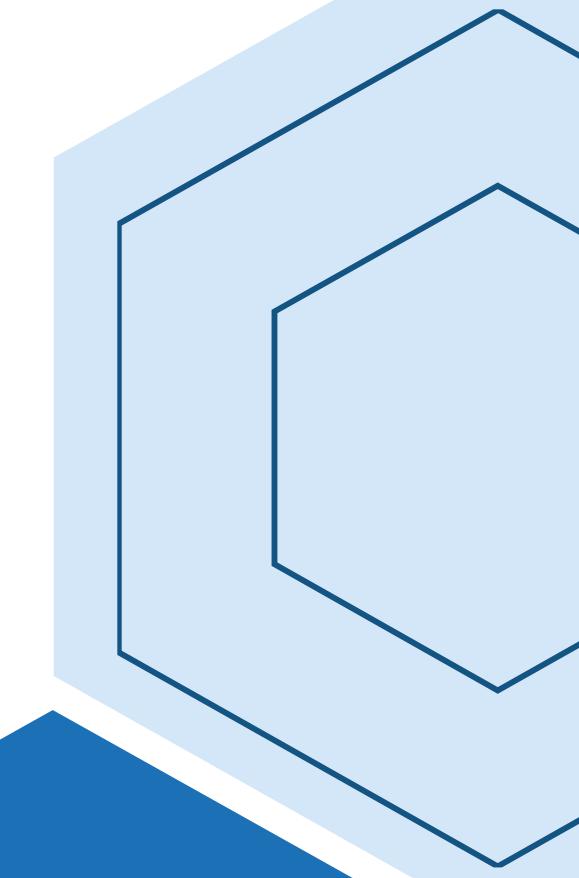
The COVID-19 pandemic has caused an unprecedented economic shock to the Norwegian and global economy. Nevertheless, Norway was remarkably effective in limiting the spread and impact of the COVID-19 pandemic in regard to its economy and social sphere reflected in its GDP. Initially, the Norwegian government responded by promptly cutting interest rates and increasing fiscal spending from the country's \$1.3 trillion sovereign wealth fund. This helped Norway suffer lower economic contractions than others and enable a quick rebound in growth, with the economy surpassing prepandemic size by the end of 2021.

In addition to the COVID-19 pandemic, the ongoing Russian military aggression against Ukraine is taking its toll on European industrial ecosystems. Norwegian businesses are shielded from much of the negative effects through its energy self-reliance, its giant oil fund, and the extraordinary windfall profits for its energy sector. Still, its own industrial ecosystems are tightly interwoven with European and global networks hit more severely by economic shocks. Maintaining its elaborated cluster policy can provide the necessary support to guarantee resilience.

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

- 1) an overview of the Norwegian national cluster policy,
- 2) an assessment of the state of the national cluster policy.





02

National cluster policy, programmes and initiatives





2. National cluster policy, programmes and initiatives

In this section we provide an overview of the existing Norwegian 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, 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 a Norwegian national cluster policy.

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 Norway.



Policy type:	National cluster policy	
Policy name:	Norwegian Innovation Clusters	
POLICY OBJECTIVES	Strengthening cooperation between companies or industry and RTDI actors	
	Increasing competitiveness and boosting scale up of SMEs	
	Supporting internationalisation activities	
	Enhancing the visibility of clusters	
	Fostering R&D activities, technology development and implementation	
	Fostering innovation and strengthening innovation ecosystems	
	Supporting cluster excellence and professionalisation of cluster management	
	Supporting the consolidation of existing cluster organisations	
	Promoting resilience and sustainable economy and other solidarity-based initiatives	
	Promoting employment and upgrading skills and competences	
	Strengthening the network of cluster organisations/cross-clustering	
	Cluster analysis and support for policymaking	

Policy type:	National cluster policy
Policy name:	Norwegian Innovation Clusters
	Norway Innovation Clusters has the main objective to set up and strengthen cooperative innovation projects in business clusters. Here they focus on increasing companies' ability to innovate, as well as support their competitiveness. The overarching pillars that define its objectives are as follows: 1. Increasing the innovation capacity and value creation of the companies that participate in cluster collaboration 2. Strengthening the role of clusters as a facilitator for renewal and sustainable growth in Norwegian business 3. Increasing the contribution of clusters to developing attractive ecosystems on regional and national levels. The NIC broadly contributes to programmes through funding, competence services, advisory services, networking services and promotional services. It is made up of the following three-level structure: 1) Support of regional clusters in an early phase for 3 years (Arena) 2) Regional & national clusters for 5 years (NCE/Arena Pro) 3) Well-established clusters with a global position for 10 years (GCE)
POLICY FOCUS	No specific focus
+	With no sector focus, the strategy largely encompasses a large portfolio of development projects that work within different sectors. Hereby, Technology areas are also used as overarching focus areas of the respective cluster programme recipients. Nevertheless, the National Centres of Expertise (NCEs) is set as a sub-brand to NIC beneficiaries, with the following focus areas: 1. (Increased) Innovation 2. Goal-oriented internationalization 3. Increased attractiveness (as hosts for participating companies) Access to tailored competence

Policy type:	National cluster policy
Policy name:	Norwegian Innovation Clusters
RESPONSIBLE AUTHORITIES	Both drafting and implementation Provides funding Oversees the implementation
	 The programme is implemented by the following organisations: Innovation Norway Industrial Development Corporation of Norway (SIVA) Research Council of Norway Other (Research & Development institutions, public bodies, county municipals, banks)
BENEFICIARIES	SMEs Research organisations Academic institutions
	The policy mainly focuses on industrial business clusters that consist of companies competing on an international level

Policy type:		National cluster policy	
Policy name:		Norwegian Innovation Clusters	
INSTRUMENTS	Financial	Funding collaboration initiatives	
		Support to R&D projects, SMEs becoming cluster members, etc.	
		Subsidies for cluster infrastructure (e.g. offices, equipment)	
		Others:	
		- Cluster Operation	
		 Competence Development Innovation cooperation 	
		- Internationalisation	
	Technical	Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market	
	assistance	intelligence	
		Support for soft skills development: coaching, management training, upskilling/reskilling	
		Support for networking and partnership building (at the national and/or international level)	
		Marketing activities: advertising, communication, events, fairs, and so on	

Policy type:		National cluster policy
Policy name:		Norwegian Innovation Clusters
	Explanation	In the NIC, the measures to implement financial as well as technical assistance instruments tend to overlap. For example, financial assistance, is funneled to areas such as: 1. Cluster Operation 2. Competence Development 3. Innovation Cooperation 4. Internationalisation Meanwhile, the technical assistance of the programme support is curtailed to the operation and development. This is geared towards: • Project Management • Management • Management of Cluster facilities • Strategy & analysis of processes • Cluster profiling • Organisation of training, workshops and conferences The two forms of assistance are intertwined with one another, as much of the programme translates into interaction and joint measures for select clusters.
HISTORY	Period	Unlimited period
(0)	Ending year	
	(for policies with a limited period)	
	Starting year	2014

Policy type:		National cluster policy	
Policy name:		Norwegian Innovation Clusters	
	Explanation	The NIC was first established in June 2014, to build on existing pillars such as the "Arena" programme (2002) as well as the Norwegian Centres of Expertise (2006). Hereby, the Norwegian Centres of Expertise (GCE) was additionally introduced in linkage with the NIC. This together is made up of the following three-level structure: 1. Support of regional clusters in an early phase, for 3 years (Arena) 2. Regional & national clusters, for 5 years (Arena Pro) 3. Well established clusters with a global position for 10 years (GCE) Arena Pro, introduced in 2019, was initiated to provide support for 5-year bases through financial and professional support in project implementation.	
BUDGET	Overall	No data available	
	Annual	No data available	
	Source of funding	Ministry of Trade, Industry and Fisheries Ministry of Local Government and Modernisation	

Policy type:		National cluster policy
Policy name:		Norwegian Innovation Clusters
POLICY	Availability	Policy Evaluation available (2018)
EVALUATION	Results	Significant interaction with other schemes: - Cluster participants make themselves better qualified for other schemes - Increase their visibility among relevant funding agencies Significant effects on collaborative relationships: - Maintenance of collaboration depends on the initiated activities and processes being perceived as relevant for programme participants. - Success measure through innovation & patents. (Knowledge spillovers, in which knowledge circulates among contributors to different projects Significant impact on economic performance: - Cluster participants significantly increased their formal collaboration in R&I projects
POLICY ALIGNMENT WITH THE		Green economy
EU PRIORITIES		Resilience

03 State of cluster policy



3. State of cluster policy

This section presents an overview on the state of play of Norwegian cluster policy in the form of a qualitative assessment across 4 areas of analysis – policy scope, continuity of cluster policies, evidence of performance, and the range of cluster support instruments. Please refer to the Annex for a detailed overview of the categories. The table below presents an overview of the **state of Norwegian cluster policy** for 2023.

Table 1: State of Play

Norway	State of play		
	Absence of cluster policy		
POLICY SCOPE	Broad policy		
POLICY SCOPE	Sectoral policy		
	National and/or regional cluster policy		
	No cluster-specific policy available		
	Cluster policy established recently		
CONTINUITY	Cluster policy established between		
	over 2 and 10 years		
	Cluster policy established over 10 years		
	ago		
	No evaluation and / or monitoring available		
	Existence of evaluations of past		
EVIDENCE OF	policies		
PERFORMANCE	Existence of monitoring or an ongoing		
1 _ 111	/ interim evaluation		
	Existence of monitoring and ex-ante		
	or ongoing / interim evaluation		
	No instruments for cluster		
	development		
	Financial support for cluster		
	development in the broader and / or		
CLUSTER SUPPORT	sectoral policy		
INSTRUMENTS	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 Norway.

Policy scope

The cluster policy of Norway's Norwegian Innovation Clusters (NIC) operates on a broad level, with specific clusters taking shape on sub-levels, depending on the funding scheme of the select business. Hereby the general outlook of cluster participants is organised in said time frames with the respective budgets:

- 1) Arena: Support of regional clusters in an early phase, for 3 years / 2 million NOK
- 2) Arena Pro & NCE: Regional & National Clusters, for 5 years / 3 million NOK
- 3) GCE: Well-established clusters with a global position, for 10 years / 10 million NOK

Nevertheless, businesses which operate on an international level are the focal beneficiaries of the programme. While the NIC does not have a sector-specific development vision, Technology areas are used as overarching focus areas of the respective cluster programme participants. Next to this, the National Centres of Expertise (NCEs), a sub-brand to NIC beneficiaries, defines the following focus areas:

- 1) (Increased) Innovation
- 2) Goal-oriented internationalisation
- 3) Increased attractiveness (as host for participating companies)

Continuity

Since the early 2000s, Norway has had a strategy to strengthen industry clusters through a national cluster programme. In addition to Norway's already established cluster landscape, structures have been in place to foster development through clusters in Norway. With the "Arena" programme launched in 2002, 70 clusters were able to benefit from financial as well as technical support. The Norwegian Centres of Expertise (NCE), developed in 2006, further strengthened the interaction in the Norwegian innovation policy "system", supporting a total of 14 projects.

These projects largely formed the basis for the Norwegian Innovation Clusters, as Arena and NCE were merged into the NIC in 2014. Hereby, Global Centres of Expertise (GCE) was introduced as a third-level system, which would support three cluster projects. As of now, Norwegian Innovation Clusters have become a key policy instrument for Norwegian industries.

Evidence of performance

As of 2018, Technopolis Group had conducted an evaluation study of the NIC. Next to further modifications to the NIC programme, a programme of 2022 presents past results and evaluation instruments conducted. On a specific note, the following aspects stand out as the most significant findings of the NIC:

- Significant interaction with other schemes
 - Cluster participants make themselves better qualified for other schemes
 - Increase their visibility among relevant funding agencies
- Significant effects on collaborative relationships
 - Maintenance of collaboration depends on the initiated activities and processes being perceived as relevant for programme participants.
 - Success measure through innovation & patents. (Knowledge spill-overs, in which knowledge circulates among contributors to different projects
- Significant impact on economic performance
 - Cluster participants significantly increased their formal collaboration in R&I projects

Cluster support instruments

On a general note, the measures to implement financial as well as technical assistance instruments overlap with one another. Regarding the financial side, **Funding collaboration initiatives**, **Support to R&D projects & cluster members** and **Subsidies for cluster infrastructure** form the basis of the support, intended to aid in facilitating and coordinating projects. On a further note, funds are also directed to fostering:

- Cluster Operation
- Competence Development
- Innovation Cooperation
- Internationalisation

Meanwhile, the technical assistance of the programme support is curtailed to the operation and development of projects. This encompasses the following tasks and domains:

- Project Management
- Management of Cluster facilities
- Strategy & Analysis of processes
- Cluster profiling
- Organisation of training, workshops, and conferences.

The two forms of assistance are intertwined with one another, as much of the programme translates into interaction and joint measures for select clusters.

<u>Cross-regional / international cooperation</u>

The NIC in itself is geared toward a plethora of goals ranging from creating access to finance & advice, fostering innovation, support of companies' growth, and Support of internationalisation. Particularly the latter aspect is of great importance in this context, with the NIC programme generally catering to companies / industrial business clusters that compete at an international level. International cooperation is also integrated into the NIC, promoting international cooperation between the education and business sector



References



References

Evaluation of Norwegian Innovation Clusters. Technopolis (group), Samfunnsokonomiskanalyse. Accessed: 28 September 2022:

https://static1.squarespace.com/static/576280dd6b8f5b9b197512ef/t/5a674edd71c10bf8df0b1b3 0/1516719848982/R76-2017+Evaluation+of+Norwegian+Innovation+Clusters.pdf

Norwegian Directorate for Higher Education and Skills. INTPART. Accessed 13 October 2023: https://hkdir.no/en/programmer-og-tilskuddsordninger/intpartenglish

Norwegian Innovation Clusters. EMCC European Monitoring Centre on Change. Accessed September 27 September 2022

https://www.eurofound.europa.eu/observatories/emcc/erm/support-instrument/norwegian-innovation-clusters

Norwegian Innovation Clusters. Programveileder: Administrative prinsipper og prosedyrer. Accessed 27 September 2022: https://www.innovasjonnorge.no/globalassets/0-innovasjonnorge.no/subsites/nic/programveileder-versjon-5-_-01.01.2022.pdf/

Norway economy faces negative impact from Ukraine war, statistics agency says. Reuters. Accessed 04 October 2022: https://www.reuters.com/business/finance/norway-economy-faces-negative-impact-ukraine-war-statistics-agency-says-2022-03-18/

OECD Economic Surveys: Norway, December 2019. Accessed 04 October 2022: https://www.oecd.org/economy/surveys/Norway-2019-OECD-Economic%20Survey_Overview.pdf

Annex

Table 2: 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 exante 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).