

EUROPEAN CLUSTER Collaboration platform

Country factsheet

Czech Republic

An initiative of the European Union





$\mathbf{C}_{\mathsf{ontents}}$

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Introduction



This document presents an overview of the cluster policy in Czech Republic. 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 <u>European Semester Country</u> <u>Report for Czech Republic</u>.

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. <u>National recovery and resilience plans</u> have been drafted in each Member State to ensure a recovery that addresses the challenges identified in the European Semester. In the Czech Republic, clusters are not directly mentioned in the National recovery and resilience plan.



Industrial ecosystems and cluster landscape

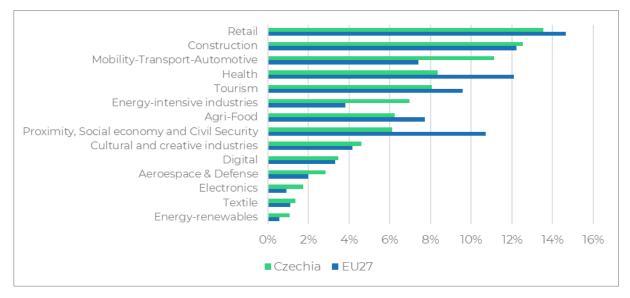




1. Industrial ecosystems and cluster landscape

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 shows 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 95 in the country, while the second table is based on the 14 ecosystems, which total 28 in the country.





Region	Number of nodes	Node 1	Node 2	Node 3	Node 4	Node 5
CZ01: Prague	14	J63 - Information services	M73 - Advertising & market research	J58 - Publishing activities	L68 - Real estate	M72 - Scientific research & development
CZ02: Central Bohemia	12	C29 - Manuf. of motor vehicles & trailers	C23 - Manuf. of other non-metal mineral products	C22 - Manuf. of rubber & plastic products	C32 - Other manufacturing	C33 - Repair, installation of machinery
CZ03: South- West (Czechia)	14	C27 - Manuf. of electrical equipment	C32 - Other manufacturing	C29 - Manuf. of motor vehicles & trailers	C16 - Manuf. of wood products	A02 - Forestry & logging
CZ04: North- West (Czechia)	14	B05 - Mining of coal & lignite	C23 - Manuf. of other non-metal mineral products	C13 - Manuf. of textiles	C33 - Repair, installation of machinery	C27 - Manuf. of electrical equipment
CZ05: North- East (Czechia)	9	C13 - Manuf. of textiles	C29 - Manuf. of motor vehicles & trailers	C22 - Manuf. of rubber & plastic products	C23 - Manuf. of other non-metal mineral products	C26 - Manuf. of electronic & optical products
CZ06: South- East (Czechia)	8	C27 - Manuf. of electrical equipment	C28 - Manuf. of machinery & equipment	C25 - Manuf. of fabricated metal products	C26 - Manuf. of electronic & optical products	C16 - Manuf. of wood products
CZ07: Central Moravia	12	C22 - Manuf. of rubber & plastic products	C27 - Manuf. of electrical equipment	C25 - Manuf. of fabricated metal products	C26 - Manuf. of electronic & optical products	A02 - Forestry & logging
CZ08: Moravian Silesia	12	B05 - Mining of coal & lignite	C24 - Manuf. of basic metals	C29 - Manuf. of motor vehicles & trailers	C27 - Manuf. of electrical equipment	C25 - Manuf. of fabricated metal products

Table 1: Regionally relevant sectoral nodes

Source: Own elaboration from Eurostat and National Statistical Offices

Table 2: Regionally relevant ecosystem nodes

Region	Number of nodes	Node 1	Node 2	Node 3	Node 4	Node 5
CZ01: Prague	3	Cultural and creative industries	Digital	Aeroespace & Defense	-	-
CZ02: Central Bohemia	3	Mobility- Transport- Automotive	Energy-intensive industries	Electronics	-	-
CZ03: South- West (Czechia)	4	Electronics	Energy- renewables	Energy-intensive industries	Mobility- Transport- Automotive	-
CZ04: North- West (Czechia)	3	Energy-intensive industries	Energy- renewables	Textile	-	-
CZ05: North-East (Czechia)	5	Electronics	Energy-intensive industries	Energy- renewables	Textile	Mobility- Transport- Automotive
CZ06: South-East (Czechia)	3	Energy- renewables	Electronics	Energy-intensive industries	-	-
CZ07: Central Moravia	4	Energy- renewables	Electronics	Energy-intensive industries	Aeroespace & Defense	-
CZ08: Moravian Silesia	3	Energy-intensive industries	Energy- renewables	Mobility- Transport- Automotive	-	-

Source: Own elaboration from Eurostat and National Statistical Offices





Cluster organisations in the regions

There are 21 cluster organisations registered on the ECCP in the country, 8 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



National cluster policy, programmes and initiatives





2. National cluster policy, programmes and initiatives

Policy type:	National cluster policy
Policy name:	Operational Programme Enterprise and Innovation for Competitiveness – Support Programme Cooperation 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 employment and upgrading skills and competences Strengthening the network of cluster organisations/cross-clustering Connect to global supply chains A support programme focused specifically on clusters under the Operational Programme Enterprise and Innovation for Competitiveness (OPPIK) has been running between 2014-2020. In total, there have been 7 calls for proposal under this support programme. The aim of the support programme is to support the development of innovation networks - clusters as a tool to increasing intensity of joint research, development and innovation activities between business entities and the research sphere. Furthermore, it aims to strengthen ties at the regional, supra-regional and international levels leading to the development of economy based on knowledge and innovation and fulfilment of the concept of smart specialisation. The activities of the programme are directly related to the strategic goal of the National Research and Innovation Strategy for Smart Specialisation of the Czech Republic.
	No specific focus



	FOCUS	The call is open to all sectors and focuses particularly on SMEs and research institutions.
RESPONSIBLE A	UTHORITIES	Both drafting and implementation Provides funding Oversees the implementation
		The Ministry of Industry and Trade is the public authority responsible for the Operational Programme. It is also the authority that awards the funding under the calls for proposals. The projects are co-funded under the ERDF.
BENEFICIARIES		SMEs Cluster organisations Research organisations Academic institutions Large firms Others - Chamber of Commerce
		The beneficiary has to be an SME. If the beneficiary is a cluster, it needs to be composed of 15 separate members and at least 10 of them have to be SMEs (15 for developed clusters and 20 for clusters of excellence). At least one of the cluster members needs to be an organisation for research and knowledge sharing.
INSTRUMENTS	Financial	Funding collaboration initiatives Support to R&D projects, SMEs becoming cluster members, etc. Subsidies for cluster infrastructure (e.g. offices, equipment) Others - internationalisation of clusters, development of the cluster organisation (increase of quality, better cooperation, knowledge sharing, marketing, networking etc.)
	Technical assistance	No non-financial instruments



	Explanation	The support programme's latest call for proposals provides funding under 4 activities - collective research, shared infrastructure, internationalisation of clusters, development of cluster organisation. The call does not provide any technical assistance.
HISTORY	Period	Limited period
	Ending year (for policies with limited period)	2020
	Starting year	2014
	Explanation	Part of the 2014-2020 ERDF funding under operational programmes.
BUDGET	Overall	EUR 75.87 million1 (CZK 1.98 billion) for 2015-2020
	Annual	-
	Source of funding	The calls for proposal under the support programme "Cooperation - Clusters" are financed through the EFRD. Each call is published for a varying period of time. There is no annual budget, each call has a specific allocated budget which ranged between EUR 1.5 to 19.1 million2.
POLICY	Availability	No policy evaluation
EVALUATION	Results	There are no publicly available evaluations of the results of the calls.

¹ <u>https://sdw.ecb.europa.eu/curConverter.do</u> ² <u>https://sdw.ecb.europa.eu/curConverter.do</u>

¹¹





State of play of cluster policy





3. State of play of cluster policy

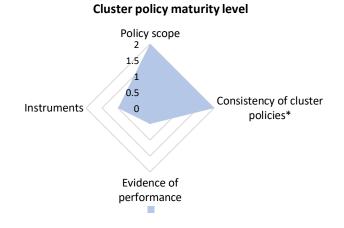
The data below illustrates how the country ranks in terms of maturity of cluster policy. The maturity index is based on a combination of factors presented in Chapter 2 and which are scored based on their existence:

- **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 and 2021). 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.

	Czech Republic	Maximum
		score
Policy scope	2	2
Consistency of cluster policies*	2	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

Availability of evaluations for terminated policies



Policy evaluation (for terminated policies)	Support for clusters has been provided over the years through several policies and funding lines. In the past there were attempts to introduce a specific cluster strategy, but this was not fully implemented. There are studies that assess the country's approach to clusters and their support and financing. An evaluation of the Operational Programme Enterprise and Innovation for Competitiveness was completed in June 2020 through which the Support Programme Cooperation Clusters was evaluated as well. The results of the evaluation are not publicly available.
Policy approach	Policy support for the activities of cluster organisations
in the country	Specific policies to support cooperation projects
	Broad-based framework policies to support cooperation effectiveness
Continuity	In 2005, a National Cluster Strategy for 2005 to 2008 was adopted by the Czech Government, however, this strategy as such was never completely implemented. According to the Ministry of Industry and Trade, the strategy and cluster support was mainly implemented through operational programmes first under the 2007-2013 period (OP Industry and Entrepreneurship). At the moment, clusters are supported under a specific support programme Cooperation Clusters the Operational Programme Enterprise and Innovation for Competitiveness for the 2014-2020 period. In each of these funding periods, there were specific calls published under the operational programme which focused on fostering collaboration between clusters in the Czech Republic and their further development in terms of research, development and innovation. The objectives of this specific strand of financing are aligned with the Smart Specialisation Strategy's objective to increase innovation demand in companies and the public sector.
	In 2019, the Government introduced Czech Republic's Innovation Strategy 2019-2030 where while clusters are specifically singled out, they are included within the focus point "The Country for Excellence" that aims to support innovation and research centres to reach their potential. One of the further goals is to achieve the integration of Czech companies into sectorial clusters with the participation of research institutions.
Consistency	> 10 years (but with clear continuity)
	Czech Republic's industry is well developed, and the main focus has always been to support development and innovation. While there is no specific cluster strategy in place, clust have always been supported either through specific budget lines in operational in the country's smart specialisation strategy, Industry 4.0 strategy or var



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