



EUROPEAN CLUSTER  
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# Country factsheet

Taiwan

An initiative of the European Union





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## Introduction



This document presents an overview of the cluster policy in Taiwan. 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 at the [official Taiwan Government website](#) and the [Economist Intelligence Unit](#).

Despite having emerged from the worst of the global coronavirus crisis in a far better state than many comparative economies around the world, Taiwan has still initiated wide-ranging moves to restart its many heavily export-reliant industrial divisions and currently ailing tourism sector. The Taiwanese authorities adopted a “relief followed by stimulus” [strategy](#), which saw a series of supportive measures for various industries and individuals such as financial help / tax measures or lighter customs measures. More recently, an additional economic stimulus package has been added to the mix. Clusters are not directly mentioned on those measures.

The ongoing Russian military aggression on Ukraine has also affected Taiwan. In particular, as the [Taiwanese semiconductor cluster is of paramount importance](#) for global high-tech industries and a singular node in global supply chains, it guarantees Taiwan’s systemic relevance as bilateral and global tensions with the People’s Republic of China rise. It also prompts [US](#) and [EU](#) initiatives to rebuild their own semiconductor manufacturing base and even interference to get Taiwanese production capacities [relocated](#) outside of the exposed country.

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

- 1) an overview of the national cluster policy in Taiwan,
- 2) an assessment of the state of play of the national cluster policy.

# 01

## National cluster policy, programmes and initiatives



## 1. National cluster policy, programmes and initiatives

In this section we provide an overview of the existing Taiwanese cluster policy on a national level.

The breakdown is presented in the form of a table, with the first column showcasing the categories of the analytical framework (beginning with 'Policy Objectives', following with 'Policy Focus', etc.) and the second column representing the case of a Taiwanese national cluster policy.

Within the table the text presented in bold (black) depicts standardised categories across country factsheets (56 in total for 2022), which are applied for comparative purposes. This is followed by a complementary descriptive text to provide more insights about the relevant cluster policy in Taiwan.



Policy type	National cluster policy
Policy name	5+2 Innovative Industries Plan
<p><b>POLICY OBJECTIVES</b></p> 	<p><b>Strengthening cooperation between companies or industry and RTDI actors</b></p> <p><b>Increasing competitiveness and boosting scale up of SMEs</b></p> <p><b>Supporting internationalisation activities</b></p> <p><b>Fostering R&amp;D activities, technology development and implementation</b></p> <p><b>Fostering innovation and strengthening innovation ecosystems</b></p> <p><b>Promoting entrepreneurship, start-ups and spin-offs</b></p> <p><b>Promoting resilience and sustainable economy and other solidarity-based initiatives</b></p> <p><b>Promoting employment and upgrading skills and competences</b></p> <p><b>Increase supply chain resilience</b></p> <p>The 5+2 Plan builds upon existing industrial complexes or clusters. The Plan aims to encourage innovation including R&amp;D, the strengthening of an innovation ecosystem including promoting entrepreneurship, all with the aim of developing international connections to export products and services. Another goal is to redirect and diversify Taiwan's supply chains away from its overdependency on mainland China. Linked to this is the goal to move from a heavy focus on an OEM business model to more profitable comprehensive technical solutions including servicing. Finally, the Plan also takes into consideration equitable regional development and the original five pillar industries had also been selected in a way for them to be distributed across the country.</p>
<p><b>POLICY FOCUS</b></p> 	<p><b>Cross-sectoral</b></p> <p>The 5+2 Plan builds upon Taiwan's strength in the ICT sector to develop clusters in its five pillars of smart machinery, IoT (Asia Silicon Valley Promotion Plan), green energy, biomedical, and defence, and was later expanded to include the circular economy and new agriculture. The government also added digital economy and cultural innovation, as well as semiconductors and integrated circuit design while the policy name remained unchanged.</p>



Policy type	National cluster policy
Policy name	5+2 Innovative Industries Plan
<b>RESPONSIBLE AUTHORITIES</b> 	<p><b>In charge of drafting</b></p> <p><b>Provides funding</b></p> <p><b>Oversees implementation</b></p> <p>While the Industrial Development Bureau in the Ministry of Economic Affairs has introduced the Plan, various other ministries and agencies are in charge of implementing the Plan and developing the appropriate annual budgets for each of the clusters. On a local level, implementation is shared with city governments.</p>
<b>BENEFICIARIES</b> 	<p><b>SMEs</b></p> <p><b>Research organisations</b></p> <p><b>Academic institutions</b></p> <p><b>Start-ups</b></p> <p><b>Business associations</b></p> <p><b>Large firms</b></p> <p><b>Technology centres</b></p> <p><b>General population</b></p> <p><b>Policy makers</b></p> <p>The 5+2 Plan is designed to produce more good jobs for the general population, invest directly in SMEs and large firms, especially manufacturers that are exporting already. The strong emphasis on R&amp;D and innovation also mandates that there are close ties with research institutions like the Industrial Technology Research Institute (ITRI). Taiwan does not traditionally have cluster organisations, but cluster development policies are executed through business associations in cooperation with research institutes and the state. With its emphasis on national-local collaboration in regional development, also local policy makers are involved and benefit from the 5+2 Plan.</p>



Policy type		National cluster policy
Policy name		5+2 Innovative Industries Plan
<b>INSTRUMENTS</b> 	<b>Financial</b>	<b>Funding collaboration initiatives</b> <b>Support to R&amp;D projects, SMEs becoming cluster members, etc.</b> <b>Subsidies to hire personnel</b> <b>Subsidies for cluster infrastructure (e.g. offices, equipment)</b> <b>Supporting market entry (e.g. testing, proof-of concept, prototyping, demonstration projects)</b> <b>Financing startups</b> <b>Innovation: voucher, support to hire PhDs, cooperation with R&amp;I actors</b>
	<b>Technical assistance</b>	<b>Infrastructure: coworking spaces, offices, incubation and accelerator spaces, research centres, technology parks etc.</b> <b>Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence</b> <b>Support for networking and partnership building (at national and/or international level)</b>
	<b>Explanation</b>	<p>The 5+2 Plan funds programmes in the selected industrial complexes focused on R&amp;D, startups, workforce development, office spaces and equipment for industrial complexes, innovation and prototyping activities and cooperation with research facilities and universities.</p> <p>It further provides technical support for technology transfer, intellectual property and international cooperation, as well as research centres and technology parks.</p>
<b>HISTORY</b> 	<b>Period</b>	<b>Unlimited period</b>
	<b>Ending year</b> (for policies with limited period)	-



Policy type		National cluster policy
Policy name		5+2 Innovative Industries Plan
	Starting year	2016
	Explanation	The Plan has not specified an end date, but the individual clusters are governed by different ministries, plans and budgets that have varying starting and ending years.
<b>BUDGET</b> 	Overall	No data available
	Annual	Varies, depends on the corresponding ministry and agency responsible for each cluster.
	Source of funding	The 5+2 Plan is backed by the Industrial Innovation and Transformation Fund and the National Investment Fund which are matched by co-investments from private actors.
<b>POLICY EVALUATION</b> 	Availability	<b>No policy evaluation</b>
	Results	Results are reported by the individual ministries and agencies responsible for each of cluster but there is no official consolidated evaluation.
<b>POLICY ALIGNMENT WITH THE EU PRIORITIES</b> 		<b>Green economy</b> <b>Digitalisation</b> <b>Resilience</b>

02

## State of play of cluster policy



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## 2. State of play of cluster policy

This section presents an overview on the state of play of Taiwanese cluster policy in the form of a quantitative and qualitative assessment. The data below illustrates how the country ranks in terms of **maturity of cluster policy at the national level**. The maturity assessment is based on a combination of factors presented in Chapter 1, which receive a score based on the existence or absence of a given element in the cluster policy.

Note: The maturity assessment does not reflect the performance of a country, but only the degree of development of their national cluster policy at the moment of data collection (Q3 2022). The assessment illustrates how the country scores for each of the four criteria (policy scope, continuity of cluster policies, evidence of performance, cluster support instruments) compared to the maximum score that they can reach. Please refer to the **Annex** for the detailed overview of the categories and the scoring system.

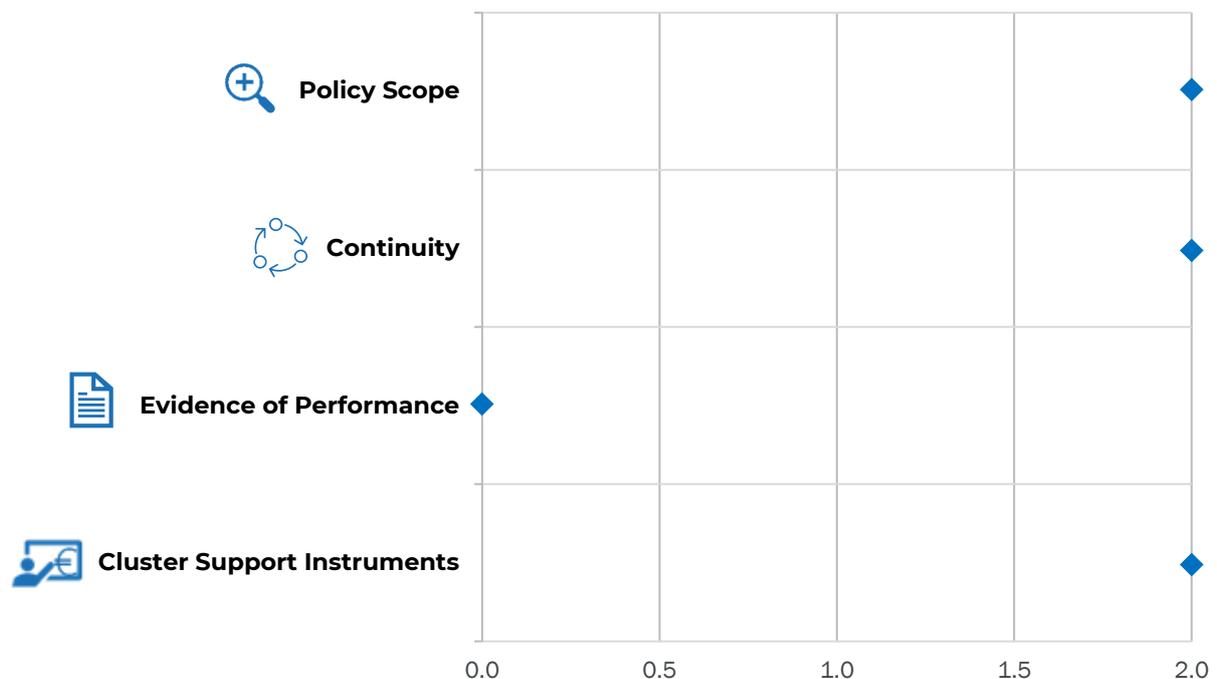
The table below presents an overview of the **maturity assessment for Taiwan** for 2022. The total score of Taiwan is 6 points out of 8.

TAIWAN	MATURITY ASSESSMENT	Max score	Actual score
<b>POLICY SCOPE</b>	Absence of cluster policy	0	
	Broad policy	0,5	
	Sectoral policy	1	
	National and/or regional cluster policy	2	<b>2</b>
<b>CONTINUITY</b>	No cluster-specific policy available	0	
	Cluster policy established recently	0,5	
	Cluster policy established between over 2 and 10 years	1	
	Cluster policy established over 10 years ago	2	<b>2</b>
<b>EVIDENCE OF PERFORMANCE</b>	No evaluation and / or monitoring available	0	<b>0</b>
	Existence of evaluations of past policies	0,5	
	Existence of monitoring or an ongoing / interim evaluation	1	
	Existence of monitoring and ex-ante or ongoing / interim evaluation	2	
<b>CLUSTER SUPPORT INSTRUMENTS</b>	No instruments for cluster development	0	
	Financial support for cluster development in the broader and / or sectoral policy	0,5	
	Financial or technical support for cluster development in dedicated cluster policy	1	
	Financial and technical support for cluster development in dedicated cluster policy	2	<b>2</b>
<b>TOTAL (8)</b>			<b>6</b>



Drawing from the table above that showcases the scored points in Taiwan's cluster policy, the Figure below portrays the **degree of maturity** across four categories related to the national level cluster policy.

**Figure 1: Maturity of cluster policy - Taiwan**



Source: ECCP (2022)

The text below provides a **qualitative description** of the state of play of the cluster policy in Taiwan, which is complementary to the maturity assessment presented above.

### **Policy scope**

Taiwan's cluster policies have evolved over the past 30+ years and have varied from infrastructure projects to support SMEs and R&D of existing regional strengths to more specific cluster policies such as the 5+2 Plan and cluster development through the Corporate Synergy Development Centre, which still operates today and is steeped in cluster theory and practice based on Porter's academic work. The Taiwanese government has also tried to use cluster policy as a means to increase regional cohesion as traditionally, Northern Taiwan has been more prosperous than Central or Southern Taiwan. For example, the 5+2 Plan is focused on developing cross-sectoral technologies such as the Internet of Things, of which the supply chain cuts across Taiwan but the ICT clusters are based in Northern Taiwan. Conversely, the inclusion of agriculture as a cluster of focus in the plan is to intentionally focus on the agriculture cluster in the Southern Taiwan.

### **Continuity**

Taiwan has introduced cluster policies since the 1980s with the introduction of the Corporate Synergy Development Centre in 1984, which promotes cluster development as a means to spur SME growth. The Centre continues to operate today. The i-Taiwan 12 projects (from 2009-2016) were largely infrastructure based as Taiwan's clusters are typically situated in industrial parks and were introduced

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with the under President Ma Ying-Jiou. Many of the infrastructure projects are complete but some are still undergoing construction. In 2016, the 5+2 Plan was introduced and continues to operate under the new President Tsai Ing-wen.<sup>1</sup>

### **Evidence of Performance**

Although Taiwan has introduced cluster policy for the last 30 years there are no available comprehensive policy evaluations available for its past policies.

### **Cluster Support Instruments**

The Taiwanese clusters<sup>2</sup> are offered different financial and technical support instruments on a national level. The 5+2 Plan funds programmes in the selected industrial complexes focused on R&D, startups, workforce development, office spaces and equipment for industrial complexes, innovation and prototyping activities and cooperation with research facilities and universities. It further provides technical support for technology transfer, intellectual property and international cooperation, as well as research centres and technology parks. To sum up, the Taiwanese Government offers extensive support to cluster development, financial as well as technical.

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<sup>1</sup> For recent updates, see <https://english.ey.gov.tw/iip/B52291842DA34A90> (accessed 29.03.2023).

<sup>2</sup> A cluster map can be consulted at <https://www.taitra.org.tw/en/cp.aspx?n=124#>. See also <https://www.isas.nus.edu.sg/papers/taiwan-a-potential-economic-partner-for-south-asia/> and <https://taiwantoday.tw/news.php?unit=8&post=120698> (accessed 29.03.2023).

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## Annex

Criterion of maturity assessment	Description	Scoring (points between 0 and 2)
<b>Policy scope</b>	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	<p><b>absence of cluster policy = 0</b></p> <p><b>existence of broader policies = 0,5</b></p> <p><b>existence of specific sectoral policies = 1</b></p> <p><b>existence of targeted cluster policies = 2</b></p>
<b>Continuity of cluster policies</b>	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	<p><b>absence of policies supporting cluster development = 0</b></p> <p><b>cluster policy established recently (within the last 2 years) = 0,5</b></p> <p><b>cluster policy established between over 2 and 10 years = 1</b></p> <p><b>cluster policy established over 10 years ago = 2</b></p>
<b>Evidence of performance</b>	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	<p><b>no evaluation and / or monitoring available = 0</b></p> <p><b>existence of evaluations of past policies, e.g. ex-ante = 0,5</b></p> <p><b>existence of monitoring or an ongoing / interim evaluation =1</b></p> <p><b>existence of monitoring and ex-ante or ongoing / interim evaluation =2</b></p>
<b>Cluster Support Instruments</b>	assessment whether the policies provide any instruments to support the policy implementation, being these financial and/or technical support	<p><b>no instruments for cluster development =0</b></p> <p><b>financial support for cluster development in the broader and / or sectoral policy = 0,5</b></p> <p><b>financial or technical support for cluster development in dedicated cluster policy = 1</b></p> <p><b>financial and technical support for cluster development in dedicated cluster policy = 2</b></p>

Source: ECCP (2022)