



EUROPEAN CLUSTER  
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# Country factsheet

Ireland

An initiative of the European Union





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## Introduction



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

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 Ireland](#).

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.

As a consequence of the COVID-19 pandemic, European as well as global economies have been subject to severe output losses. In response, policymakers at EU and national level have acted decisively and made very significant financial resources available to tackle the threat of a prolonged downturn. 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<sup>1</sup>, to tackle the threat of a prolonged downturn. These [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. Irish clusters are not mentioned in the National recovery and resilience plan. In addition to the COVID-19 pandemic, the ongoing Russian military aggression against Ukraine has also taken its toll on EU companies and industrial ecosystems, highlighting the significance of policy efforts in supporting SMEs and clusters.

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

- 1) an overview of the industrial ecosystems and cluster landscape in Ireland
- 2) an overview of the national cluster policy and an insight into the regional cluster policy,
- 3) an assessment of the state of play of the national cluster policy.

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<sup>1</sup> Ireland's National Recovery and Resilience Plan 2021, [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2021\)698848](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698848) (last accessed 28.11.2022).

01

# Industrial ecosystems and cluster landscape



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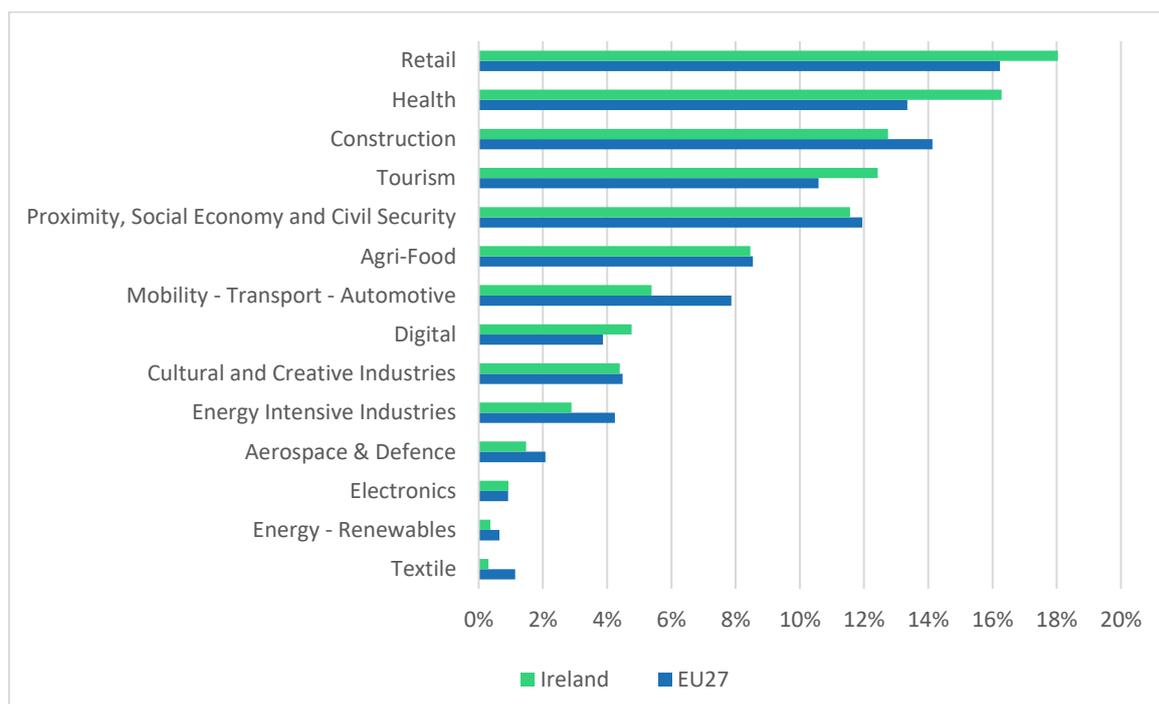
# 1. Industrial ecosystems and cluster landscape

## 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.<sup>2</sup> The classification of the 14 industrial ecosystems have been calculated by aggregating NACE 2 -digit activities, following the methodology established in the European Commission.<sup>3</sup>

In Figure 1, the employment share of Ireland and the EU27 on average 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. The figure shows that "Retail" is the leading industrial ecosystem in terms of employment, accounting for approximately 18% of the employment of all ecosystems, followed closely by "Health" with roughly 16%. The fact that these industrial ecosystems, along with "Tourism" and "Digital," have shares higher than the respective EU27 averages indicates the country's strength in these areas.

**Figure 1: Employment in the ecosystems**



Source: ECCP (2022), own elaboration based on data from Eurostat

<sup>2</sup> see here for more information <https://clustercollaboration.eu/in-focus/industrial-ecosystems> (last access 09.01.2023).

<sup>3</sup> see European Commission (2021): Annual Single Market Report, SWD(2021)351.



## Regionally relevant nodes (agglomerations)

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.<sup>4</sup> The following tables shows the total number of regionally relevant specialisation nodes (agglomerations) 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 13 in the country, while the second table is based on the 14 ecosystems, which total in the country.

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

Region	Number of nodes	Node 1	Node 2	Node 3	Node 4	Node 5
<b>IE04: Northern and Western (Ireland)</b>	3	I55 - Accommodation	Q88 - Social work without accommodation	A01 - Crop & animal production	-	-
<b>IE05: Southern (Ireland)</b>	3	I55 - Accommodation	Q88 - Social work without accommodation	A01 - Crop & animal production	-	-
<b>IE06: Eastern and Midland (Ireland)</b>	7	K65 - Insurance, pension funding	K64 - Financial services	J62 - Computer programming, consultancy	Q88 - Social work without accommodation	M70 – Activities of head offices

Source: ECCP (2022), own elaboration based on data from Eurostat

Overall, there are fewer ecosystem nodes than the regionally relevant sectoral nodes by NACE sectors. This more concentrated agglomeration can at least partially be linked to the methodology of measurement of the 14 industrial ecosystems. For the Northern and Western (IE04) as well as the Southern region (IE05), the regionally relevant sectoral nodes include accommodation (I55), social work without accommodation (Q88) and crop & animal production (A01). However, neither regions have sectoral ecosystems. For the Eastern and Midland (IE06) region, which includes the country's capital and largest urban agglomeration, sectors such as insurance, pension funding, financial services and computer programming, consultancy are among the most relevant sectoral nodes (NACE). This is also partially reflected in the region's only regionally relevant ecosystem node "Digital".

**Table 2: Regionally relevant ecosystem nodes**

Region	Number of nodes	Node 1
<b>IE04: Northern and Western (Ireland)</b>	0	-
<b>IE05: Southern (Ireland)</b>	0	-
<b>IE06: Eastern and Midland (Ireland)</b>	1	Digital

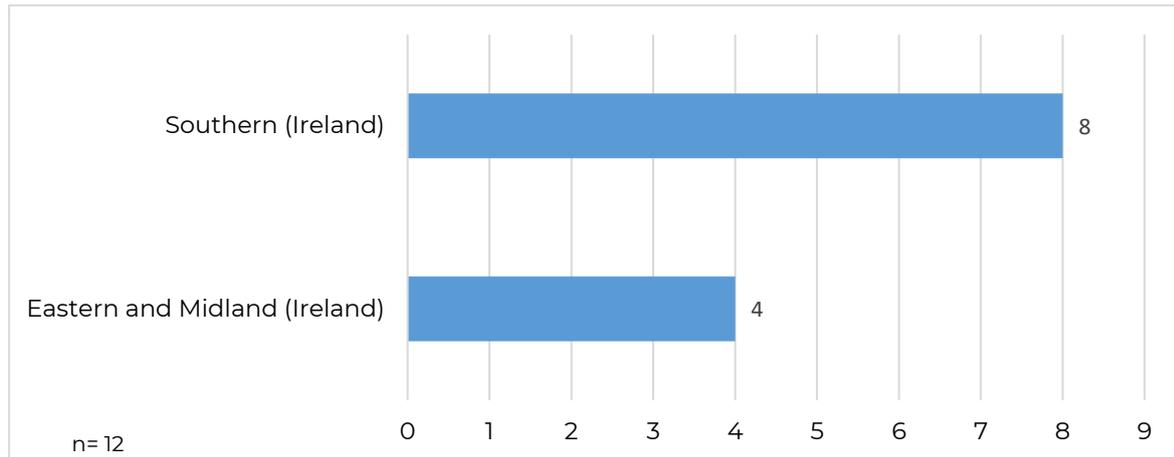
Source: ECCP (2022), own elaboration based on data from Eurostat



## Cluster organisations in the regions

There are 12 cluster organisations registered on the ECCP in the country. The majority of these cluster organisations are based in the region “Southern” (8 cluster organisations). 4 cluster organisations are located in Eastern and Midland. The following figure shows the presence of cluster organisations in the different regions.

**Figure 2: Cluster organisations profiled on the ECCP**



Source: ECCP (2022). Note: The data for the analysis was extracted on 14/10/2022

The majority of member organizations of Irish cluster organizations with profiles on the ECCP are composed of SMEs (67%, EU: 84%), followed by large enterprises (24%, EU: 9%) and research organisations (9%, EU: 7%). From a thematic perspective, these Irish cluster organisations are operating in the following industrial ecosystems. 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.

- Digital (2 cluster organisations)
- Agri-food (2 cluster organisations)
- Health (1 cluster organisation)
- Aerospace & Defence (1 cluster organisation)
- Construction (1 cluster organisation)

# 02

## National cluster policy, programmes and initiatives



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## 2. National cluster policy, programmes and initiatives

In this section we provide an overview of the existing Irish 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, 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 an Irish broad policy, whilst the third represents a national cluster policy in Ireland.

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



Policy type:	Broad policy	National cluster
Policy name:	Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
<b>POLICY OBJECTIVES</b> 	<b>Strengthening cooperation between companies or industry and RTDI actors</b> <b>Increasing competitiveness and boosting scale up of SMEs</b> <b>Supporting internationalisation activities</b> <b>Fostering R&amp;D activities, technology development and implementation</b> <b>Fostering innovation and strengthening innovation ecosystems</b> <b>Promoting employment and upgrading skills and competences</b> <b>Promoting entrepreneurship, start-ups and spin-offs</b> <b>Connect to global supply chains</b> <b>Promoting social and sustainable economy and other solidarity-based initiatives</b>	<b>Strengthening cooperation between companies or industry and RTDI actors</b> <b>Increasing competitiveness and boosting scale up of SMEs</b> <b>Supporting internationalisation activities</b> <b>Fostering R&amp;D activities, technology development and implementation</b> <b>Fostering innovation and strengthening innovation ecosystems</b> <b>Promoting social and sustainable economy and other solidarity-based initiatives</b> <b>Promoting employment and upgrading skills and competences</b> <b>Strengthening the network of cluster organisations/cross-clustering</b> <b>Enhancing the visibility of clusters</b>
	<p>The objective of Science Foundation Ireland (SFI) is to fund research in STEM, (i.e., areas of science, technology, engineering, and mathematics) to promote competitiveness, foster innovation, and increase employment in Ireland. This is done through partnerships and collaboration with international and national enterprises, funding SFI research centres, providing infrastructure grants to higher education institutes, and promotion of STEM awareness programs such as “Science Week.”</p>	<p>The objectives of the fund are to 1) Support Institute of Technologies and Technological Universities in increasing their engagement with SMEs and industry, 2) Support clustering in different sectors that can foster increased SME productivity, drive competition and increase international activities and exports</p>



Policy type:	Broad policy	National cluster
Policy name:	Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
<b>POLICY FOCUS</b> 	<b>Sectoral</b>  The SFI focuses on STEM research and innovation-scientific and engineering research.	<b>No specific focus</b>  RTCF does not have a particular policy focus, but however looks into building sectoral clusters of Small Medium (SMEs) sized businesses at the regional level. The clustering fund will support clustering several sectors including Marine, Cyber Security, Connected Health, Furniture Manufacturing, Construction, Advanced Manufacturing, Engineering, BioEconomy, Industry 4.0, MedTech and AgriTech.
	<b>RESPONSIBLE AUTHORITIES</b> 	<b>In charge of implementation</b>  <b>Provides funding</b>  <b>Oversees the implementation</b>  The Industrial Development (Science Foundation Ireland) Act passed by the Irish Government in 2003 established the SFI. The SFI is led by board members and an executive team who is in charge of overseeing implementation.



Policy type:	Broad policy	National cluster
Policy name:	Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
<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>Large firms</b></p> <p><b>Technology centres</b></p> <p><b>General Population</b></p>	<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>Large firms</b></p> <p><b>Technology centres</b></p> <p><b>Cluster organisations</b></p>
	<p>SFI enables the growth of STEM in Ireland by supporting and funding researchers in higher education institutes who collaborate with multinational companies (MNCs), Small-and-Medium-Sized Enterprises (SMEs), and Start-Ups. SFI also establishes SFI research centres across Ireland and provides grants to higher education institutions to improve their infrastructure. SFI also supports programming on TV that promote STEM.</p>	<p>RTCF seeks to provide platform for engagement between businesses, regionally based academic institutions and research institutions to drive productivity and competition.</p>



Policy type:		Broad policy	National cluster
Policy name:		Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
<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>Financing networking events</b>	<b>Funding collaboration initiatives</b> <b>Support to R&amp;D projects, SMEs becoming cluster members, etc.</b> <b>Financing networking events</b> <b>Subsidies to hire personnel</b>
	<b>Technical assistance</b>	<b>Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence</b> <b>Support for soft skills development: coaching, management training, upskilling/reskilling</b> <b>Support for networking and partnership building (at national and/or international level)</b> <b>Marketing activities: advertising, communication, events, fairs, and so on</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 soft skills development: coaching, management training, upskilling/reskilling</b> <b>Support for networking and partnership building (at national and/or international level)</b> <b>Infrastructure: coworking spaces, offices, incubation and accelerator spaces, research centres, technology parks etc.</b> <b>Marketing activities: advertising, communication, events, fairs, and so on</b> <b>Support for eligible overhead costs</b>
	<b>Explanation</b>	SFI provides funding through a variety of streams for collaborative research, as well as conferences and symposia, and provides grants to higher education institutions to upgrade their infrastructure. SFI also links and fosters collaboration	The Government of Ireland allocated €4.6 million to RTCF in the 2019 Budget. This is a competitive fund open to Institutes of Technology (IoTs) and Technological Universities (TUs). Funding is allocated on a competitive basis via Enterprise Ireland.



Policy type:		Broad policy	National cluster
Policy name:		Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
		between researchers and companies that are working on similar projects.	
<b>HISTORY</b> 	<b>Period</b>	<b>Unlimited period</b>	<b>Limited period</b>
	<b>Ending year</b> (for policies with limited period)	-	
	<b>Starting year</b>	2000	2020
	<b>Explanation</b>	SFI was originally created in 2000 as a sub-board of Forfás to administer the Ireland Technology Foresight Fund. It was established as a separate entity with the Industrial Development (Science Foundation Ireland) Act passed by the Irish government in 2003. In 2013, The Act was amended to include oriented basic research and applied research.	RTCF is an annual competitive fund and subsequent funding will be based on evaluation of cluster performance.
<b>BUDGET</b> 	<b>Overall</b>	Data unavailable	Data Unavailable
	<b>Annual</b>	EUR 208.3 million (2021) <sup>5</sup>	EUR 2.75 million <sup>6</sup>
	<b>Source of funding</b>	Science Foundation Ireland is funded by the Government of Ireland through the Department of Jobs, Enterprise and	RTCF is funded by Department of Enterprise, Trade and Employment and is administered on behalf of the Department by Enterprise Ireland

<sup>5</sup> See: <https://www.sfi.ie/research-news/publications/SFI-Annual-Plan-2021.pdf> (last accessed 09.12.2022).

<sup>6</sup> See <https://projects2014-2020.interregeurope.eu/ecoris3/news/news-article/6223/2-75m-regional-technology-cluster-fund-launched/> (last accessed 09.12.2022).



Policy type:		Broad policy	National cluster
Policy name:		Science Foundation Ireland (SFI) Science, Technology and Innovation policy	Regional Technology Clustering Fund (RTCF)
		Innovation. SFI also partners with international funding agencies in the UK and US.	
<b>POLICY</b>   <b>EVALUATION</b>	<b>Availability</b>	<b>in-itinere</b>	<b>no policy evaluation</b>
	<b>Results</b>	<p>The Irish Government Economic and Evaluation Service conducted a spending review of the SFI research grants in 2019. Expenditures between 2012 and 2017 were analysed. SFI represented 23.4% of the Irish government's expenditure on R&amp;D (2017). The review found that there were increased collaborations between researchers and firms of all sizes, private sector funding of research, and career opportunities and pathways for postdoctoral researchers. While the review found that SFI's funding and programs may have improved the quality of research as demonstrated in academic journal citations and subject rankings, the review could not draw overall conclusions about the effectiveness of the funding for SFI overall. However, individual program evaluations were referenced in the review that demonstrated a stronger conclusion about the effectiveness of the programs.</p>	<p>The programme was just put in place at the end of 2019, therefore there is no policy evaluation at this time.</p>
<b>POLICY ALIGNMENT WITH THE EU</b>  <b>PRIORITIES</b>  		<b>Digitalisation</b>  <b>Social inclusion</b>  <b>Resilience</b>	<b>Green economy</b>  <b>Social inclusion</b>

# 03

## State of play of cluster policy



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### 3. State of play of cluster policy

This section presents an overview on the state of play of the Irish 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 2, which receive a score based on the existence or absence of a given element in the cluster policy. The regional cluster policy example is not included in this assessment.

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.

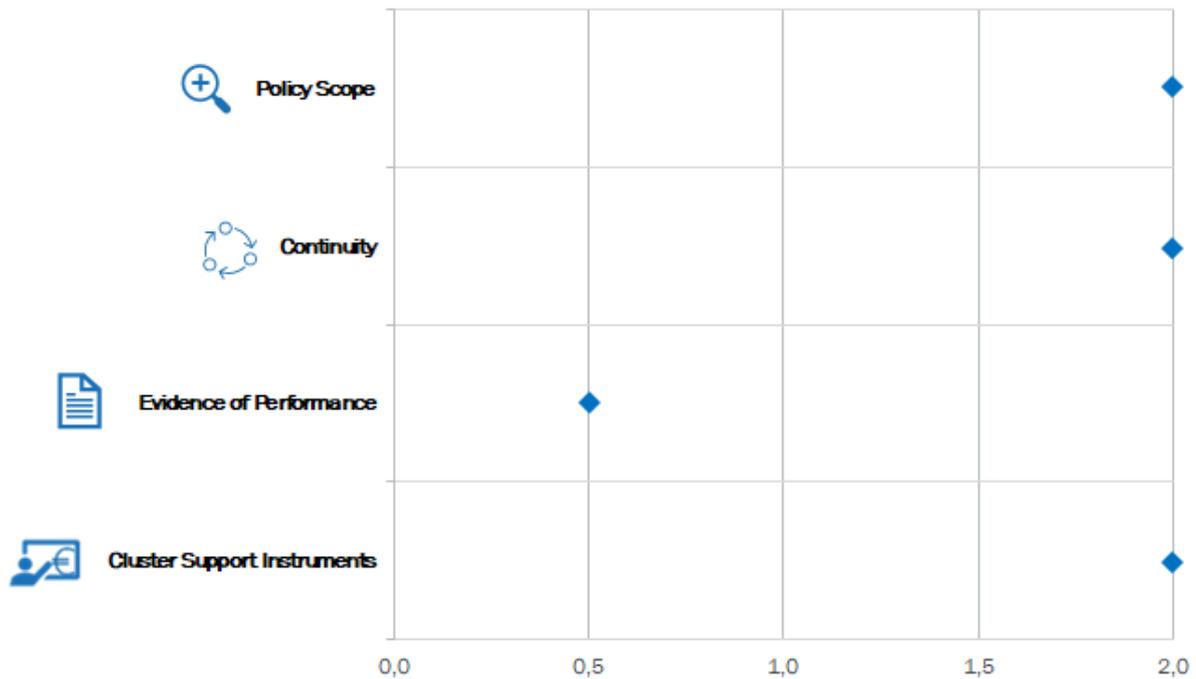
The table below presents an overview of the **maturity assessment for Ireland** for 2022. The total score of Ireland is 6,5 points out of 8.

Ireland	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 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	
	Existence of evaluations of past policies	0,5	<b>0,5</b>
	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>6,5</b>



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

*Figure 3: Maturity of cluster policy - Ireland*



Source: ECCP (2022)

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

### **Policy scope**

In regard to the policy scope and approach, the cluster policy of Ireland is characterised by a mixed approach that combines a broad policy focused on science, technology and innovation and a nation-wide cluster policy to foster regional cluster development.

### **Continuity**

Engagement with cluster-based policies in Ireland stretch back to 1992, in which the Culliton report underlined the importance of competitive business environments for the development of enterprise. On this basis, research on Ireland-specific business environments in 1997 by diverse researchers noted how Irish clusters deviated from benchmark Porterian-styled clusters and therefore were subject to less attention to cluster-driven economic activity. Against the backdrop of growing cluster-focused research in the 2000s and 2010s



### **Evidence of performance**

The Irish Government Economic and Evaluation Service conducted a spending review of the SFI research grants in 2019. Expenditures between 2012 and 2017 were analysed. SFI represented 23.4% of the Irish government's expenditure on R&D (2017). The review found that there were increased collaborations between researchers and firms of all sizes, private sector funding of research, and career opportunities and pathways for postdoctoral researchers. While the review found that SFI's funding and programs may have improved the quality of research as demonstrated in academic journal citations and subject rankings, the review could not draw overall conclusions about the effectiveness of the funding for SFI overall. However, individual program evaluations were referenced in the review that demonstrated a stronger conclusion about the effectiveness of the programs.

### **Cluster support instruments**

SFI funds research in STEM in diverse sectors to promote competitiveness, foster innovation and increase employment in Ireland. This is carried through partnerships and collaboration with international and national enterprises, funding SFI research centres, providing infrastructure grants to higher education institutes, and promotion of STEM's projects for example in "Science Week" programmes.

### **Cross-regional / international cooperation**

The European Cluster Partnerships have been launched by the European Commission to encourage clusters to intensify collaboration across regions and sectors.

Irish cluster organisations have been involved in three consortia of the European Strategic Cluster Partnerships of which two partnerships were focusing on internationalisation (ESCP-4i) and one on partnerships were on cluster management excellence (ESCP-4x). Consortia partners came from 10 different EU member states (FR, IT, BE, DE, ES, TR, HU, DK, UK, PL). Six Irish cluster organisations participated in the INNOSUP-1 initiative, with partner organisations coming from 19 countries (ES, NL, DE, PL, PT, UK, RS, LU, EL, LT, FR, IT, DK, HU, SE, RO, BG, TR, FI). There are currently no Irish cluster organisations involved in Euroclusters

In the 2021-2027 funding period, the Single Market Programme supports clusters as part of the Joint Cluster Initiatives (Euroclusters) for Europe's recovery. However, there are no Irish cluster organisations that are part of any of the 20 Euroclusters with partners from other EU Member States.

# Bibliography



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## Bibliography

Atlantic MedTech Cluster. 2017. [www.atlanticmedtechcluster.com/](http://www.atlanticmedtechcluster.com/) (accessed 08.08.2022).

Cyber Ireland. National Cyber Security Cluster supported by IDA Ireland. [www.idaireland.com/doing-business-here/industry-sectors/cyber-security](http://www.idaireland.com/doing-business-here/industry-sectors/cyber-security) (accessed 08.08.2022).

Cyber Ireland. December 2019 Newsletter. [www.cyberireland.ie/december-2019-newsletter/](http://www.cyberireland.ie/december-2019-newsletter/) (accessed 10.08.2022).

Enterprise Ireland. "Minister Humphrey launches new Atlantic MedTech Cluster." [www.enterprise-ireland.com/en/News/PressReleases/2018-Press-Releases/Minister-Humphreys-launches-new-Atlantic-MedTech-Cluster.html](http://www.enterprise-ireland.com/en/News/PressReleases/2018-Press-Releases/Minister-Humphreys-launches-new-Atlantic-MedTech-Cluster.html) (accessed 30.07.2022).

Enterprise Ireland. "Ministers Humphreys and McHugh announce €4.6m in Government funding through the Regional Technology Clustering Fund." <https://dbei.gov.ie/en/News-And-Events/Department-News/2019/December/06122019.html> (accessed 29.07.2022).

Enterprise Ireland. "Regional Technology Cluster Fund (RTCF)." [www.enterprise-ireland.com/en/funding-supports/Regional-Technology-Cluster-Fund/RTCF/](http://www.enterprise-ireland.com/en/funding-supports/Regional-Technology-Cluster-Fund/RTCF/) (accessed 11.08.2022).

European Cluster Collaboration Platform. "Geoscience Ireland." [www.clustercollaboration.eu/cluster-organisations/geoscience-ireland](http://www.clustercollaboration.eu/cluster-organisations/geoscience-ireland) (accessed 11.08.2022).

Geological Survey Ireland. "Programmes & Projects." [www.gsi.ie/en-ie/programmes-and-projects/Pages/default.aspx](http://www.gsi.ie/en-ie/programmes-and-projects/Pages/default.aspx) (accessed 29.07.2022).

Geoscience Ireland. "Research and Innovation." [www.geoscience.ie/about/research-and-innovation/](http://www.geoscience.ie/about/research-and-innovation/) (accessed 09.08.2022).

Geoscience Ireland. Geoscience Ireland Strategic Review 2018-2022. [www.geoscience.ie/wp-content/uploads/Geoscience-Ireland-Strategic-Review-2018-2022-1.pdf](http://www.geoscience.ie/wp-content/uploads/Geoscience-Ireland-Strategic-Review-2018-2022-1.pdf) (accessed 09.08.2022).

IDA Ireland. "Cyber Ireland Launch Cyber Security Cluster." [www.idaireland.com/newsroom/cyber-ireland-launch-cyber-security-cluster](http://www.idaireland.com/newsroom/cyber-ireland-launch-cyber-security-cluster) (accessed 08.08.2022).

Ireland Department of Business, Enterprise and Innovation. "National Cyber Security Cluster 'Cyber Ireland' announced by IDA Ireland and Cork Institute of Technology." December 13, 2018. <https://dbei.gov.ie/en/News-And-Events/Department-News/2018/December/13122018b.html>.

Keogh, Robert, and Niall Hickey. "Analysis of Scientific Foundation Ireland Research Grants: Spending Review 2019." Department of Public Expenditure and Reform. <https://assets.gov.ie/25647/b041ef6d714c4414ac0cbe0eaf329795.pdf> (accessed 08.08.2022).

Lilyanova, Velina 2021. Ireland's National Recovery and Resilience Plan 2021. European Parliamentary Research Service. [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_BRI\(2021\)698848](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698848) (accessed 28.11.2022).



Merrion Street. "Minister Humphreys and McHugh announce 4.6m in Government funding through the Regional Technology Clustering Fund." [www.merrionstreet.ie/en/News-Room/Releases/Ministers\\_Humphreys\\_and\\_McHugh\\_announce\\_%E2%82%AC4\\_6m\\_in\\_Government\\_funding\\_through\\_the\\_Regional\\_Technology\\_Clustering\\_Fund.html](http://www.merrionstreet.ie/en/News-Room/Releases/Ministers_Humphreys_and_McHugh_announce_%E2%82%AC4_6m_in_Government_funding_through_the_Regional_Technology_Clustering_Fund.html) (accessed 15.08.2022).

Science Foundation Ireland. About Us. <https://www.sfi.ie/about-us/> (accessed 16.08.2022).

Science Foundation Ireland. About Us. History. <https://www.sfi.ie/about-us/about-sfi/history/> (accessed 29.07.2022).

Science Foundation Ireland. About Us. What we do. <https://www.sfi.ie/about-us/about-sfi/history/> (accessed 10.08.2022).

Science Foundation Ireland. Annual Plan 2020. <https://www.sfi.ie/research-news/publications/SFI-Annual-Plan-2020.pdf> (accessed 09.08.2022).

Science Foundation Ireland Programmes Plan 2021. [SFI-Annual-Plan-2022.pdf](https://www.sfi.ie/research-news/publications/SFI-Annual-Plan-2021.pdf) (accessed 13.09.2022).

Science Foundation Annual Plan 2021. <https://www.sfi.ie/research-news/publications/SFI-Annual-Plan-2021.pdf> (accessed 13.09.2022).

Science Foundation Ireland. Funding. <https://www.sfi.ie/funding/> (accessed 12.09.2022).

Science Foundation Ireland. Funding calls. <https://www.sfi.ie/funding/funding-calls/> (accessed 13.09.2022).

Science Foundation Ireland. SFI Executive Team. <https://www.sfi.ie/about-us/about-sfi/organisation/management-team/> (accessed 11.08.2022).



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