# European Cluster Collaboration Platform

# Country factsheet

Ireland

# Contents

Strengthening the European economy through collaboration

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COLLABORATION PLATFORM

# 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.

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[1], 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. Irish clusters are not mentioned in the National recovery and resilience plan.

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[1] Ireland's National Recovery and Resilience Plan 2021, file:///C:/Users/Usuario/Downloads/162639_e5f1a2bf-35aa-4e25-9a8a-9b49c8b0b50f.pdf

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# 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. 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*
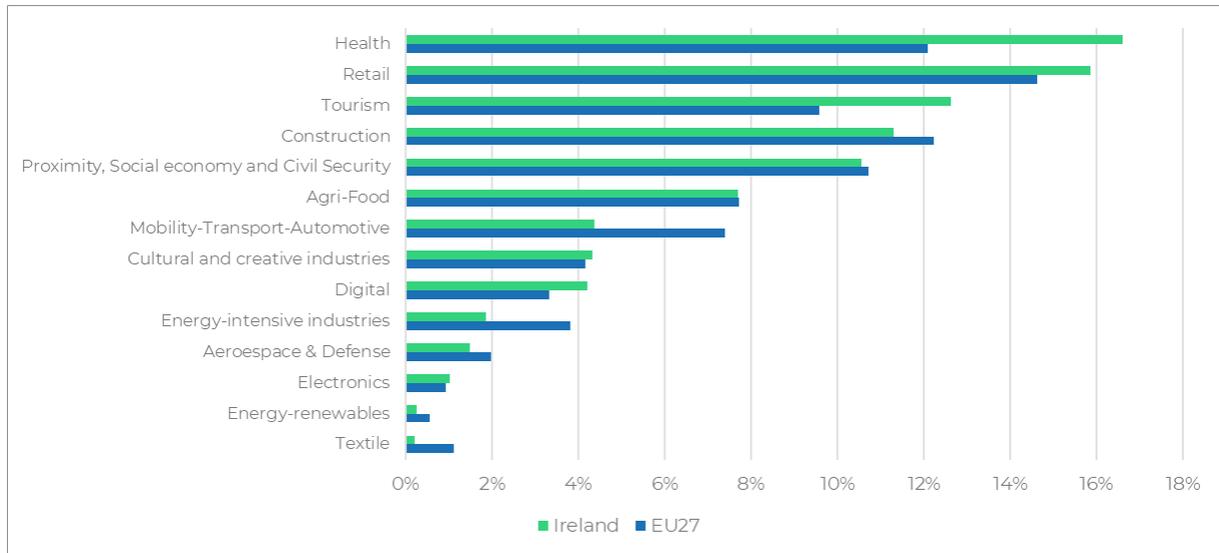


Source: Own elaboration from Eurostat and National Statistical Offices

# 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 18 in the country, while the second table is based on the 14 ecosystems, which total 3 in the country.

*Table 1: Regionally relevant sectoral nodes*

| Region | Number of nodes | Node 1 | Node 2 | Node 3 | Node 4 | Node 5 |
|---|---|---|---|---|---|---|
| **IE04: Northern and Western (Ireland)** | 5 | C32 - Other manufacturing | C21 - Manuf. of pharmaceuticals | I55 - Accommodation | A01 - Crop & animal production | Q88 - Social work without accommodation |
| **IE05: Southern (Ireland)** | 5 | C21 - Manuf. of pharmaceuticals | C32 - Other manufacturing | I55 - Accommodation | C26 - Manuf. of electronic & optical products | A01 - Crop & animal production |
| **IE06: Eastern and Midland (Ireland)** | 8 | C21 - Manuf. of pharmaceuticals | K65 - Insurance, pension funding | K64 - Financial services | J62 - Computer programming, consultancy | I55 - Accommodation |

Source: Own elaboration from Eurostat and National Statistical Offices

*Table 2: Regionally relevant ecosystem nodes*

| Region | Number of nodes | Node 1 |
|---|---|---|
| **IE04: Northern and Western (Ireland)** | 1 | Health |
| **IE05: Southern (Ireland)** | 1 | Electronics |
| **IE06: Eastern and Midland (Ireland)** | 1 | Digital |

Source: Own elaboration from Eurostat and National Statistical Offices

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## Cluster organisations in the regions

There are 10 cluster organisations registered on the ECCP in the country, 1 of which can be considered active on the ECCP, having updated its profile 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*
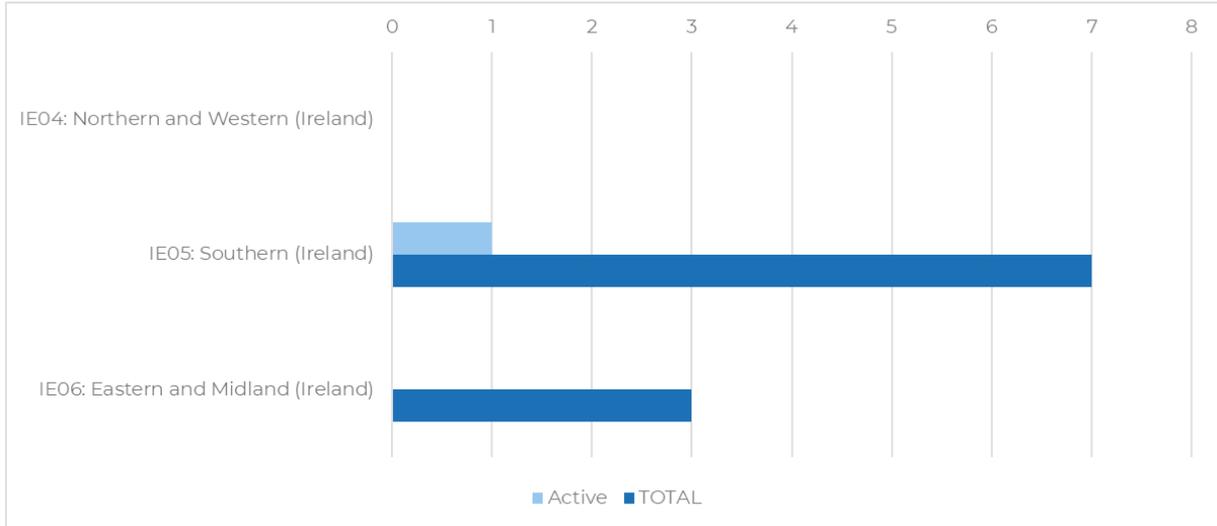


Source: Own elaboration from Eurostat and National Statistical Offices

# 02

# National cluster policy, programmes and initiatives

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## 2. National cluster policy, programmes and initiatives

| Policy type: | Broad policy | National cluster policy |
|---|---|---|
| Policy name: | Science Foundation Ireland (SFI)<br><br>Science, Technology and Innovation policy | Regional Technology Clustering Fund (RTCF) |
| **POLICY OBJECTIVES**  | **Strengthening cooperation between companies or industry and RTDI actors**<br><br>**Increasing competitiveness and boosting scale up of SMEs**<br><br>**Supporting internationalisation activities**<br><br>**Fostering R&D activities, technology development and implementation**<br><br>**Fostering innovation and strengthening innovation ecosystems**<br><br>**Promoting employment and upgrading skills and competences**<br><br>**Promoting entrepreneurship, start-ups and spin-offs**<br><br>**Connect to global supply chains**<br><br>**Promoting social and sustainable economy and other solidarity-based initiatives** | **Strengthening cooperation between companies or industry and RTDI actors**<br><br>**Increasing competitiveness and boosting scale up of SMEs**<br><br>**Supporting internationalisation activities**<br><br>**Fostering R&D activities, technology development and implementation**<br><br>**Fostering innovation and strengthening innovation ecosystems**<br><br>**Promoting social and sustainable economy and other solidarity-based initiatives**<br><br>**Promoting employment and upgrading skills and competences**<br><br>**Strengthening the network of cluster organisations/cross-clustering**<br><br>**Enhancing the visibility of clusters** |
| | 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." | 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 |
| | **Sectoral** | **No specific focus** |

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| | | |
|---|---|---|
| **POLICY FOCUS**  | The SFI focuses on STEM research and innovation-scientific and engineering research. | 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. |
| **RESPONSIBLE AUTHORITIES**  | **In charge of implementation**<br><br>**Provides funding**<br><br>**Oversees the implementation** | **In charge of drafting**<br><br>**Provides funding** |
| | 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. | The Department of Business allocated funding to RTCF under the Project Ireland 2040 Initiative that aims to build sectorial clusters of Small Medium Enterprises (SMEs) at regional levels. RTCF is led by Enterprise Ireland on behalf of the Department of Enterprise, Trade and Employment. RTCF is a multi-annual project. |
| **BENEFICIARIES**  | **SMEs**<br><br>**Research organisations**<br><br>**Academic institutions**<br><br>**Start-ups**<br><br>**Large firms**<br><br>**Technology centres**<br><br>**General Population** | **SMEs**<br><br>**Research organisations**<br><br>**Academic institutions**<br><br>**Start-ups**<br><br>**Large firms**<br><br>**Technology centres**<br><br>**Cluster organisations** |
| | 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. | RTCF seeks to provide platform for engagement between businesses, regionally based academic institutions and research institutions to drive productivity and competition. |
| Financial | **Funding collaboration initiatives** | **Funding collaboration initiatives** |

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| **INSTRUMENTS** | | Support to R&D projects, SMEs becoming cluster members, etc. | Support to R&D projects, SMEs becoming cluster members, etc. |
|---|---|---|---|
| | | Financing networking events | Financing networking events |
| | | | Subsidies to hire personnel |
| | Technical assistance | Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence | Support for hard skill development: knowledge transfer, intellectual property, entrepreneurship, export advice, market intelligence |
| | | Support for soft skills development: coaching, management training, upskilling/reskilling | Support for soft skills development: coaching, management training, upskilling/reskilling |
| | | Support for networking and partnership building (at national and/or international level) | Support for networking and partnership building (at national and/or international level) |
| | | Marketing activities: advertising, communication, events, fairs, and so on | Infrastructure: coworking spaces, offices, incubation and accelerator spaces, research centres, technology parks etc. |
| | | Infrastructure: coworking spaces, offices, incubation and accelerator spaces, research centres, technology parks etc. | Marketing activities: advertising, communication, events, fairs, and so on |
| | | | Support for eligible overhead costs |
| | Explanation | 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 between researchers and companies that are working on similar projects. | 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. |
| **HISTORY** | Period | Unlimited period | Limited period |
| | Ending year *(for policies with limited period)* | - | |
| | Starting year | 2000 | 2020 |
| | Explanation | 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. |

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| BUDGET | Overall | Data unavailable | Data Unavailable |
|---|---|---|---|
| | Annual | EUR 199 million | EUR 4.6 million |
| | Source of funding | Science Foundation Ireland is funded by the Government of Ireland through the Department of Jobs, Enterprise and Innovation. SFI also partners with international funding agencies in the UK and US. | RTCF is funded by Department of Enterprise, Trade and Employment and is administered on behalf of the Department by Enterprise Ireland |
| POLICY EVALUATION | Availability | **in-itinere** | **no policy evaluation** |
| | Results | The Irish Government Economic and Evaluation Service conducted a spending review of the SFI research grants in 2019. Expenditures between 2012 and 2017 were analyzed. 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. | The programme was just put in place at the end of 2019, therefore there is no policy evaluation at this time. |
| POLICY ALIGNMENT WITH THE EU PRIORITIES | | **Green economy** <br> **Social inclusion** | - |

# 03

# State of play of cluster policy

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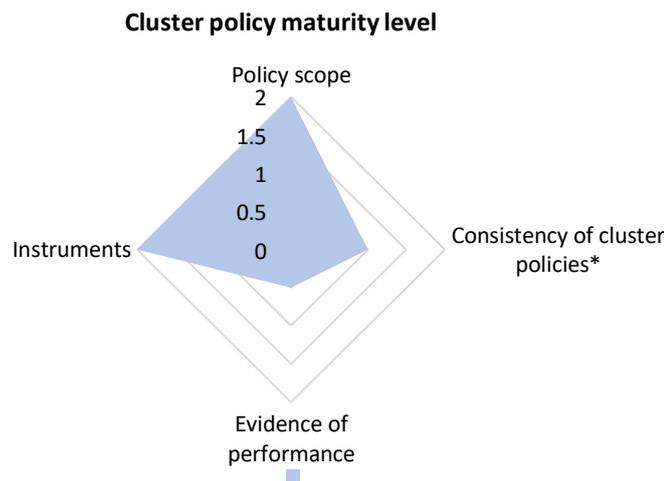
# 3. State of play of cluster policy

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.

| | Ireland | Maximum score |
|---|---|---|
| Policy scope | 2 | 2 |
| Consistency of cluster policies* | 1 | 2 |
| Evidence of performance | 0,5 | 1 |
| Instruments | 2 | 2 |

*\* This dimension is scored solely if the country has a dedicated cluster policy and it assesses only cluster policies*

**Cluster policy maturity level**



| State of play of cluster policy in the country | |
|---|---|
| **Policy evaluation (for terminated policies)** | **No policy evaluation** |
| | No terminated cluster policies have been identified |

| Policy approach in the country | **Policy support for the activities of cluster organisations** |
|---|---|
| | **Cluster approach used directly by national/regional development agencies** |
| | **Broad-based framework policies to support cooperation effectiveness** |
| | **Specific policies to support cooperation projects** |
| Continuity | Several broad policies such as Science Foundation Ireland Research Centres and Enterprise Ireland and IDA Technology Gateways are currently in operation in Ireland. |
| | SFI Research Centres link scientists and engineers in partnerships across academia and industry to address crucial research questions. Enterprise Ireland Technology Gateways works in partnership with nine Institutes of Technology and one Technological University across Ireland. Consisting of 15 specialised Gateways and 3 sectoral clusters, the Technology Gateway Network delivers innovation expertise and solutions for Irish industry. |
| | Formal cluster organisations have emerged under a variety of enterprise support programmes and initiatives over time, for example Geoscience Ireland, Atlantic MedTech, and Cyber Ireland. |
| | Geoscience Ireland was formed in 2010 when stakeholders from Enterprise Ireland and Geological Survey Ireland responded to the job losses in the sector. The Government of Ireland developed in 2016 a clustering initiative to enable industry-led groups reap the benefits of collaboration, Atlantic MedTech emerged from this programme. Cyber Ireland brings together Industry, Academia and Government to represent the needs of the Cyber Security Ecosystem in Ireland and was launched in 2018 through a partnering of IDA Ireland and Cork Institute of Technology. |
| | National cluster policies are more recent. In 2017, the Government introduced the Regional Enterprise Development Fund which has had three competitive calls to date and includes a dedicated stream to support the development of enterprise clusters regionally and nationally. Further calls are envisaged. In 2019, the Government of Ireland announced the Regional Technology Clustering Fund (RTCF) with the aim of building sectoral clusters of SMEs at a regional level focused on regional higher education institutions. |
| | The Department of Enterprise Trade and Employment is currently exploring the development of a national policy framework on cluster development in Ireland that ties together the existing broad policy initiatives as well as the emerging regional clustering programmes. |
| Consistency | **< 10 years** |
| | National cluster policies are fairly recent in Ireland. For instance, the RTCF programme was announced only in 2019. |

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