

Climate Research in Ireland 2024



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2024 Climate Research Highlights¹



141
new research
projects funded



€7.3m
in core research
activities



€138m
in competitive
funding awarded



€13m
in co-funding



€29.5m
EU funding leveraged
by Irish researchers

¹ Reporting Period January to December 2024. Figures represent data submitted by NERCG member organisations and include both climate and climate-related research activities.

Overview

The National Environmental Research Co-ordination Group (NERCG) seeks to support and promote coordination and knowledge exchange between state bodies involved in funding climate research in Ireland. The group is coordinated and chaired by the EPA and has 39 member organisations consisting of research funding organisations, state agencies and government departments, listed in Appendix I.

This Climate Research in Ireland report, the seventh of its kind, provides an update on climate research funding administered by NERCG member organisations in 2024. Some key activities of NERCG members in 2024 are also highlighted. The report is based on information provided to the EPA by the following NERCG members:

- Department of Agriculture, Food and Marine
- Department of Climate, Energy and the Environment
- Department of Transport
- Department of Enterprise, Trade and Employment
- Department of An Taoiseach
- Department of Further and Higher Education, Research, Innovation and Science
- Office of the Planning Regulator
- Environmental Protection Agency
- Inland Fisheries Ireland
- Met Éireann
- Taighde Éireann, Research Ireland
- Sustainable Energy Authority of Ireland
- Geological Survey Ireland
- The Marine Institute

The data presented includes both:

- **climate research**, which contributes directly to our understanding of climate and how it is changing; and
- **climate-related research**, which includes research on the impacts of climate change in different sectors and solutions to address it.

All data used to compile the report will be made available on the EPA's [National Climate Research Database](#).

As detailed in the report, in 2024, NERCG members awarded €138m in competitive funding for 141 projects in climate and climate-related research, representing a significant increase of €23m on 2023. Considering only climate research, the overall amount of funding awarded increased by €10.5m compared to 2023, with 31 projects to a value of €29.9m awarded in 2024.

There is active co-ordination between funders to maximise the impact of their resources, with €13m in co-funding provided between NERCG members and €3.2m provided by non-NERCG members, including, for example, the New Zealand Ministry of Primary Industries, Údarás na Gaeltachta, Royal Institute of the Architects of Ireland, as well as various contributions from the private sector. A number of NERCG members also carry out essential climate research in-house within their organisations and which amounted to €7.3m in 2024.

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Overview (cont'd)

Horizon Europe is an important source of funding and collaborative opportunity for the climate and climate-related research community in Ireland. Within Clusters 5 and 6, researchers in Ireland secured approximately €29.5m for climate and climate-related research under relevant calls in 2024, as part of international collaborative projects worth over €45.8m.

A limited analysis of research outputs reveals an increase in both climate and climate-related publications over the last five years. Selected highlights from 2024 are outlined, which includes new funding initiatives, some key project outputs and events related to climate research.

It is positive that we are seeing increases across all metrics, both in terms of new funding as well as the research outputs from previously funded projects. Science and data are essential to understand how Ireland is being impacted by climate change, but we also need the capacity, talent and skills to address this: continued and sustained investment in climate and climate-related research is critical to this.



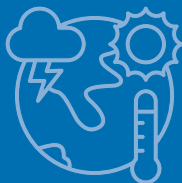
€138m

in competitive
funding for 141 projects
in climate and
climate-related research



€29.5m

in Horizon European
funding in climate and
climate-related research
in 2024



Ireland has seen funding in climate and climate-related research increase over the last five years, with associated increases in research outputs and publications in these areas.

Climate Research Funding in Ireland

A total of €29.9m was invested in 31 projects in climate research in 2024 (Figure 1). This represents an increase of €10.5m on the same figure in 2023.

Considering both climate and climate-related research in 2024, 141 projects were awarded to an amount of €138m, which is €23m more than in 2023. Projects ranged in size, with the largest proportions in the ranges €0-200k (49 projects) and €500k-1m (49 projects).

Figure 1 shows fluctuations in total investment in climate and climate-related research over the reported years, from a low of ~€20m in 2020 to a peak of €138m last year. While it is positive to see this overall upward trend, it should be noted that this

can in part be attributed to an expansion in the scope of what was counted as 'climate-related research' in 2021, as well as fluctuations arising from large single awards in certain years, for example, from Taighde Éireann-Research Ireland Research Centres and Strategic Partnerships. Specifically, looking at the increase of ~€25m from 2023 to 2024, this can be attributed to three individual awards made in this period:

- Second phase of the VistaMilk project (€26m)
- Co-Centre for Climate + Biodiversity and Water (€19m)
- Co-Centre for Sustainable and Resilient Food Systems (€15m).

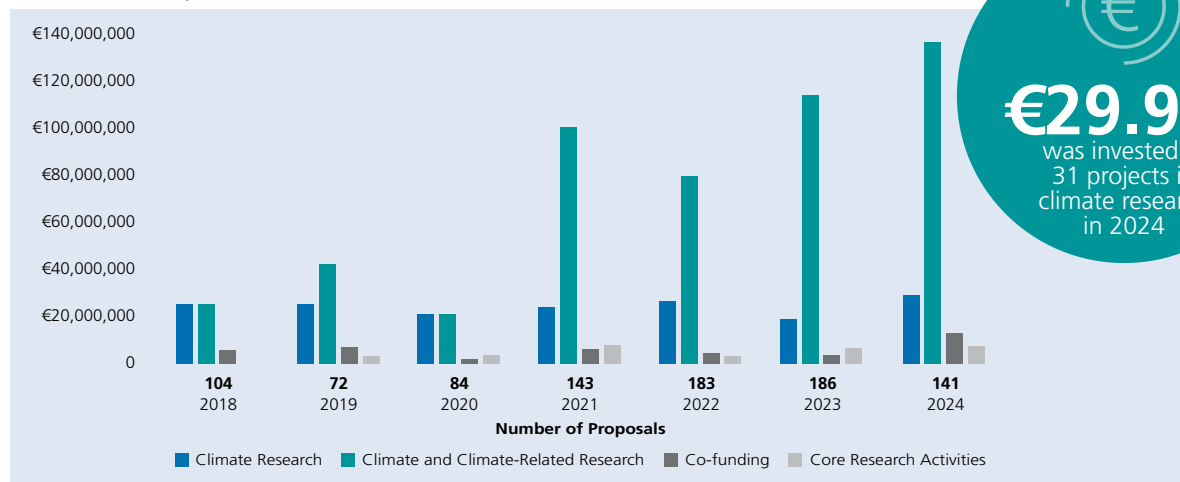


Figure 1 NERCG Funding Activities 2018-2024²

² Scope of what constituted 'Climate-related Research' was expanded significantly in 2021. Core Research Activities were not recorded in 2018.

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Figure 2 shows the budget committed by NERCG members for new competitive awards in climate and climate-related research in 2024. It also shows the amount of co-funding supplied by non-CRCG members. As mentioned above,

there were three notable large individual awards by Taighde Éireann-Research Ireland in this time period: for clarity, the larger awards mentioned above are shown separately on the graph.

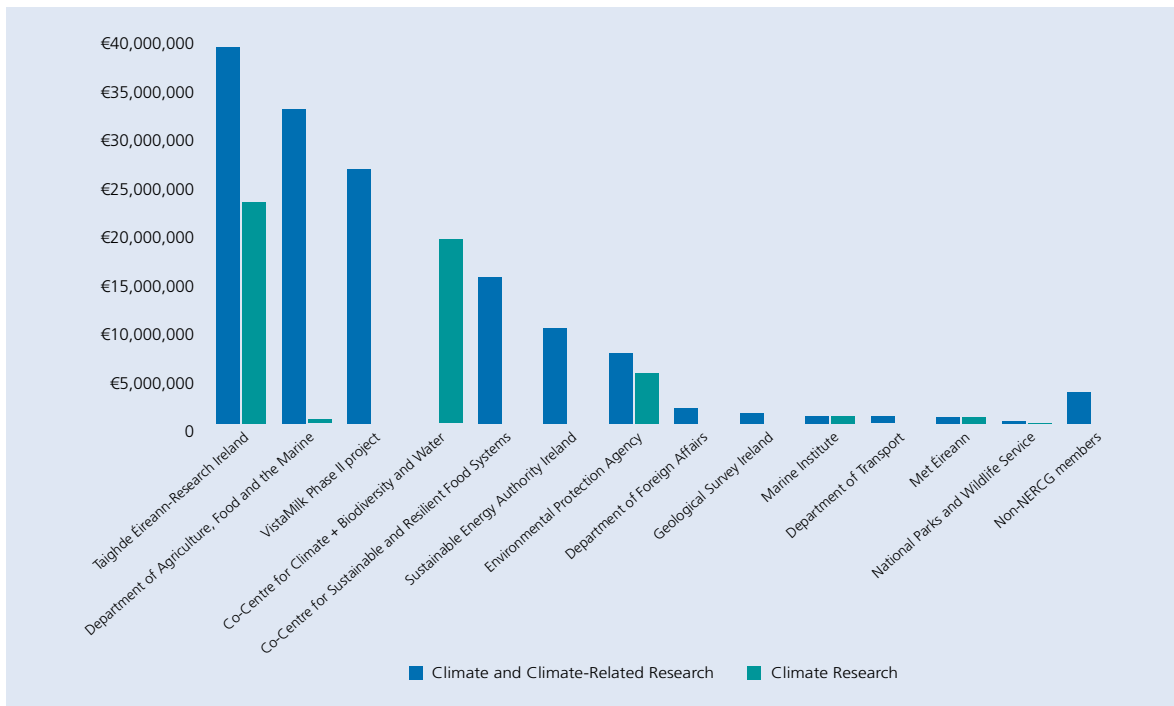


Figure 2 Budget committed by NERCG members for new competitive research awards in climate and climate-related research in 2024. Co-funding supplied by non-NERCG members is also shown.

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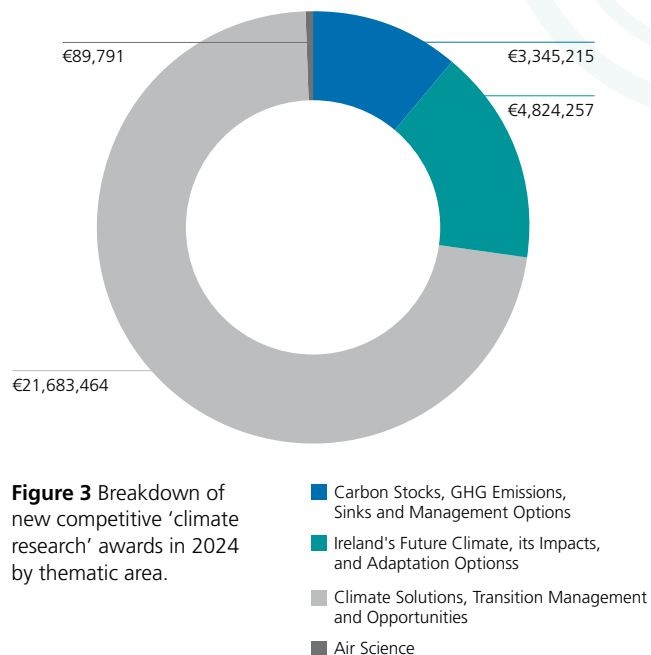
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Climate Research Funding in Ireland

Thematic Area

Figure 3 provides a breakdown of the climate research awards in 2024 by thematic area. Of the total €29.9m, 'Climate solutions, transition management and opportunities' was the most highly funded thematic area in 2024 at €21.7m, representing a sizeable increase of €16.3m in funding on 2023. 'Ireland's future climate, its impacts and adaptation options' decreased by €4.3m to €4.8m, with 'Carbon stocks, GHG emissions, sinks and management options', and 'Air science' receiving €3.5m and €90k in funding respectively in 2024.



€21.7m

for 'Climate Solutions, transition management and opportunities', the most highly funded thematic area in 2024.

€4.8m

for 'Ireland's future climate, its impacts and adaptation options, the second highest.

€3.5m

was awarded to 'carbon stocks, GHG emissions, sinks and management options'.

€90k

was received by the 'air science' thematic area.

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Research-performing Organisations

Teagasc received the most funding through competitive research calls in 2024 for climate and climate-related research (Figure 4), the majority of this funding is for one project – the second phase of the VistaMilk project (€26m, shown as shaded area in graph below). Trinity College Dublin represents

the most successful higher education institution in 2024, followed by University College Dublin, University College Cork and University. Trinity College Dublin was the most highly funded research body when considering only climate research, followed by University of Galway and University College Cork.

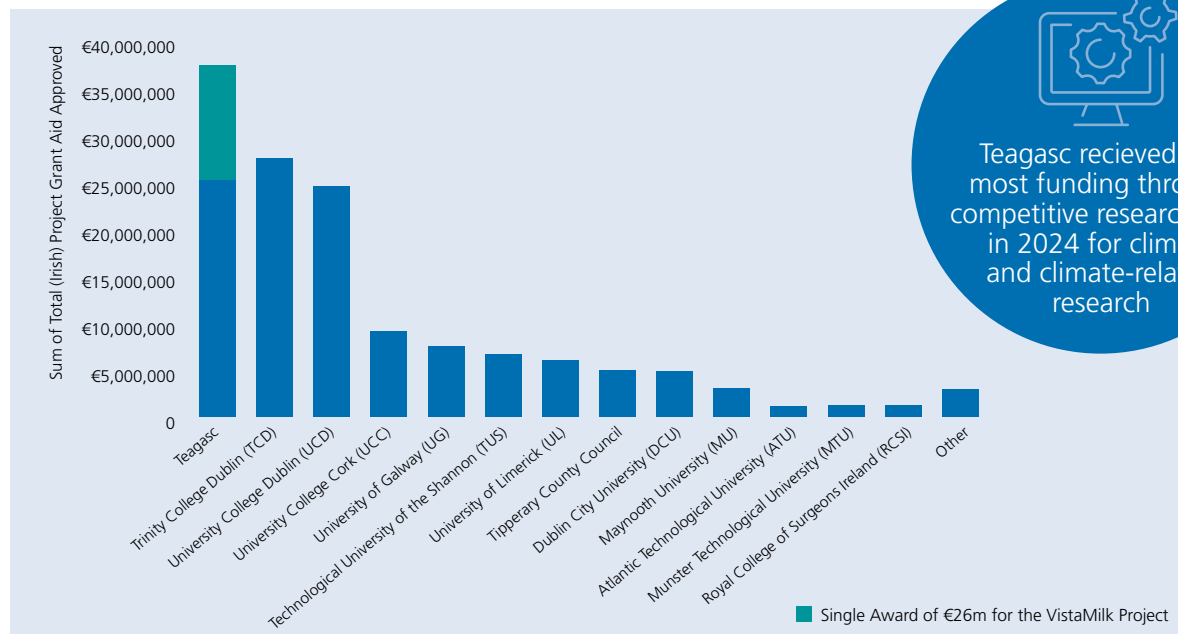


Figure 4 Total budget awarded in 2024 per receiving lead research-performing organisation through new competitive funding in climate and climate-related research.

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Publications

Publications are a key research output and indicative of the level of research activity in a given area. Figure 5 shows the total numbers of publications with Irish-based authors over 5-year periods for climate and climate-related research based on a bibliographic analysis³. A continued upward trend is seen with increases in the numbers of publications in both climate and associated research areas over the period 2018 to 2024.

As shown in Table 1 (overleaf), a high proportion of the publications in 2024 involved international collaboration. Looking at the performance of publications, it is positive that the Normalised Citation Impact is above average (>1) meaning that publications were cited more than average (Table 1, overleaf).

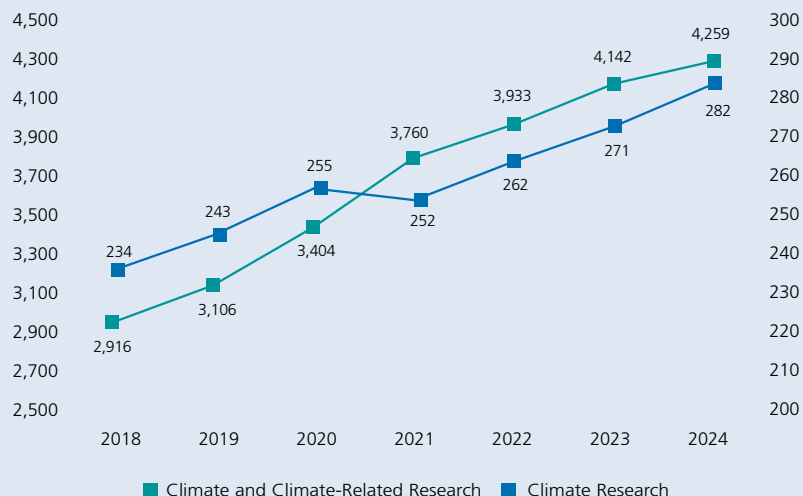


Figure 5 Numbers of publications (shown as the moving total for the preceding five-year time period).

³ Data was gathered from Incites (Clarivate Analytics) on 22 August 2025 and includes Articles and Reviews. The classifications used were based on the Australian and New Zealand Standard Research Classification, which is the basis for Research Classification Ireland. Climate-related Research includes all publications under the broad Level 1 Field of Research Classifications: Environmental Sciences (41) and Earth Sciences (37). Climate Research includes only publications under the more detailed Level 2 Field of Research Classifications: Climate change science (3702) and Climate change impacts and adaptation (4101).

Climate Research Funding in Ireland

Table 1: Numbers of research publications in 2024 with Irish-based author and associated bibliographic metrics in climate and climate-related research. The normalised citation impact provides a comparison to the world average for these categorisations. A value above one indicates that it is above average; for example, 1.4 indicates 40% higher than the world average.

Category	Number of Publications	Normalised Citation Impact	% International Collaborations
Climate-related Research (Level 1 Classification: Environmental and Earth Sciences)	683	1.3	82%
Climate Research (Level 2 Classification: Climate change science, and impacts and adaptation)	46	1.4	80%

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Horizon Europe

In calls in 2024, Ireland was successful in receiving a total of 45 grants under Clusters 5 and 6 of Pillar 2 in Horizon Europe, which represent the subject areas of Climate, Energy, Mobility, Food, Bioeconomy, Natural Resources, Agriculture and the Environment (comparable to climate and climate-related research). These awards represent a total of almost €30m for Ireland and are part of overall projects worth €257m (Table 2).

It is difficult to make direct comparisons between years as the available funding opportunities differ, with approximately 10% more funding available across Clusters 5 and 6 in 2023 than in 2024. While the funding secured by the Irish research community across both clusters has fallen in 2024, it is noted that funding secured for climate calls increased from €3.2m to €5.9m and in Climate, Energy and Mobility from €14.6m to €21.5m, indicating a positive trend for the Irish research community's engagement in these areas. Of the 45 awards with partners from Ireland, 10 are being coordinated by researchers in Ireland, which is a similar proportion to that reported for 2023.

Table 2: Funding awarded to Irish researchers in climate and climate-related Horizon Europe funding calls in 2024

Area	Number of Grants	Funding for Irish Partners	Total Project Funding
Climate	6	€5.9m	€45.8m
Climate, Energy and Mobility	32	€21.5m	€194.3m
Climate, Energy and Mobility; Food, Bioeconomy, Natural Resources, Agriculture and Environment	45	€29.5m	€256.8m

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For additional highlights provided by NERCG members, please see the Supplementary Information document available for download.

EPA Behavioural Insights Research

The EPA's [Behavioural Insights Unit](#) aims to understand the preferences, behaviours, and attitudes of individuals to support climate action, as well as assessing the Irish public's opinion on climate related issues. In 2024, they published reports from three research studies focusing on the Behavioural Insights:

- [A review of Climate Change Attitudes Using a Person Centred Framework](#) (No 1. 2024)
- [Gap Analysis on Behavioural Research Related to Climate Policy and Interventions](#) (No 2. 2024)
- [Encouraging Cooperation in Climate Collective Action Problems](#) (No 3. 2024)

These research studies were commissioned by the Behavioural Insights Unit and carried out by researchers at UCD, DCU and the ESRI.

IPCC Experts from Ireland

Prof. Peter Thorne (Maynooth University) and Dr. Una Murray (University of Galway) were selected to participate in scoping of the next IPCC Seventh Assessment Report. IPCC Assessment Reports are comprehensive evaluations of the current scientific, technical, and socio-economic knowledge on climate change, its impacts, and future risks. They are produced by the Intergovernmental Panel on Climate Change (IPCC) and provide authoritative scientific findings that have been agreed upon by member governments and climate scientists. Further nominations to contribute to Special Reports and for the Seventh Assessment Report are expected in 2025. The EPA supports experts from Ireland to participate through the provision of travel and subsistence costs.

CRH Chair of Climate Science

Trinity College Dublin has named Professor Karen Wiltshire its inaugural CRH Chair of Climate Science, a new position funded by CRH to promote research addressing climate change. Prof. Wiltshire, who is an alumna of TCD, returns to the College after spending time in the Alfred Wegener Institute for Polar and Marine Research in Germany, where she was vice-director. She also held a professorship in shelf sea ecology at the University of Kiel. As chair of climate science, she will focus on innovative ways to combine the needs of society, renewable energy and nature towards a sustainable climate and human future.

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Appointment of Met Éireann Research Professor

Professor Andrew Parnell has been appointed as the [Met Éireann Professor of Weather and Climate Research](#) at UCD, heading a new multimillion-euro research programme that will use AI and data science to enhance Ireland's weather and climate services. The initiative will support PhD and postdoctoral work and aims to strengthen resilience, decision-making and extreme-weather prediction capabilities. Professor Parnell has predominant research interests in machine learning and statistical modelling, and how these might be incorporated in climate research.

Research and Modelling Coordination Group publication

The Research and Modelling Coordination Group, chaired by the Department of the Taoiseach, has published a document highlighting [National Modelling Assets for Energy and Climate Change Mitigation](#). The purpose of this document is to map and describe Ireland's modelling assets used in energy/climate policy – highlighting existing models and how they might connect with each other, highlighting knowledge and data gaps, and identifying opportunities to strengthen the overall national modelling system. The publication required extensive collaboration from across the public, semi-state and academic sectors.

Climate Neutrality Forum 2024

The [2024 Climate Neutrality Forum](#) organised by [JPI Climate](#) and the [MAGICA project](#), in both of which Ireland is a member, was held in Brussels from the 28th to the 30th of October 2024. This forum brought together over 300 experts from science, policy, and industry to exchange knowledge on steps toward achieving net-zero greenhouse gas emissions. The discussions focused the latest scientific understanding of key drivers of climate change, global carbon budgets, emission reduction trajectories, and potential policies to limit global warming to 1.5°C.



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EPA Climate Conference 2024

EPA Ireland's Annual Climate Change Conference 2024, titled **"Ireland Living in a Changed Climate"**, took place on **15 May 2024** at the Hibernia Conference Centre, Dublin Castle, and was also streamed online ([EPA Ireland](#)).

The conference Keynote address was by Gabriel Makhoul, Governor of the Central Bank of Ireland, who spoke about the macroeconomic implications of climate change in Ireland.



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Appendix I

Members of the National Environmental Research Coordination Group

An Fóram Uisce (Water Forum)

Central Statistics Office

City and County Managers Association

Climate Action Regional Office (Dublin)

Climate Change Advisory Council

Department of Agriculture, Environment and Rural Affairs (NI)

Department of Agriculture, Food and Marine

Department of Enterprise, Tourism and Employment

Department of Foreign Affairs

Department of Further and Higher Education, Research,
Innovation and Science

Department of Health

Department of Housing, Local Government and Heritage

Department of the Climate, Energy and the Environment

Department of the Taoiseach

Department of Transport

Enterprise Ireland

Environmental Protection Agency

Food Safety Authority Ireland

Geological Survey Ireland

Health and Safety Authority

Health Research Board

Health Service Executive

Inland Fisheries Ireland

Institute of Public Health

Uisce Éireann (Irish Water)

Local Authority Water Programme

Marine Institute

Maritime Area Regulatory Authority

Met Éireann

National Economic and Social Council

National Parks and Wildlife Services

National Transport Authority

National Treasury Management Agency

Northern Ireland Environment Agency

Office of Public Works

Office of the Planning Regulator

Sustainable Energy Authority of Ireland

Taighde Éireann – Research Ireland

Teagasc



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Acknowledgements

The EPA would like to acknowledge the contributions of the Climate Research Coordination Group members in the preparation of this annual report for 2024 and thank all organisations who provided the data included in this report.

Disclaimer

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