EPA Research 2030

Action Plan for 2024





Putting science and innovation at the centre of environmental protection in Ireland through the development and proactive transfer of knowledge

May 2024

The EPA Research Programme is a Government of Ireland initiative funded by the Department of the Environment, Climate & Communications

About this Action Plan

EPA-funded research provides essential scientific support for environmental policy development, implementation and broader decision making in Ireland. <u>EPA Research 2030</u> provides a strategic framework for the delivery of the EPA Research Programme.

This Action Plan for 2024 provides an overview of the planned activities of the EPA Research Programme in 2024 under the framework of *EPA Research 2030*.

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1. Overview of EPA Research 2030

<u>EPA Research 2030</u> is a ten-year high-level framework that sets out the broad structure and ambition for the EPA's Research Programme over the period 2021 to 2030. It is designed to be agile, responsive, and flexible, and aims to deliver timely and impactful research to support policy and decision making, and to address knowledge gaps in existing and emerging environmental pressures.

EPA Research 2030 is structured around four interconnected research hubs:

- Addressing Climate Change Evidence Needs;
- Facilitating a Green and Circular Economy;
- Delivering a Healthy Environment; and
- Protecting and Restoring our Natural Environment.

Research is funded by the EPA across these four research hubs using a variety of funding schemes, as outlined in this action plan.

EPA Research 2030 identifies key post-award activities for funded research to facilitate the best possible outcomes and impacts for policy and the protection of the environment. These activities include active monitoring of projects, collaboration with policy makers, knowledge transfer activities, targeted communications and measuring and quantifying outcomes and impacts using agreed metrics and indicators.

In funding research, the EPA activity promotes and endorses a range of <u>policies and strategies</u> on gender, research integrity, open research, and maternity, paternity, parents and adoptive leave.

Please refer to our website for full details on *EPA Research 2030*.

2. Key EPA Research Activities in 2024

The EPA Research Programme is delivered through structured pre-award and post award processes. The following sections outline how the *EPA Research 2030* framework will be implemented in 2024 in terms of various funding opportunities, as well as strategic post-award activities aimed at tracking and improving the impact of research through proactive communications and knowledge transfer to all our stakeholders.

2.1. Funding Opportunities

The EPA funds research using a tailored suite of awards to achieve the objectives set down in *EPA Research 2030*. In 2024, research will be funded by the EPA through the following mechanisms, with details of the timelines outlined in <u>Table 1</u>.

- The EPA Research Call 2024 The EPA Research Call 2024 will provide up to €14.5m to fund innovative research projects that will support policy- and decision-making addressing environmental, climate change and sustainability challenges. Applications are invited under <u>13 broad Themes</u> that will address current and emerging policy needs and build capacity in relevant areas.
- EPA Fast Track to Policy Research plays an important role in generating evidence to inform the design and implementation of effective and robust environmental policy. The EPA's Fast-Track to Policy funding mechanism aims to deliver rapid-turnaround evidence reviews to address urgent and emerging policy questions.
- EPA Climate Fellowships Call 2024 we will launch a new Climate Fellowships Call in 2024 inviting postdoctoral or experienced researchers to apply for fellowship positions based in the EPA's Climate Change Programme. The fellowships will provide a unique opportunity for academics to contribute knowledge, expertise and evidence to support climate policy and action.
- Strategic National Partnerships we provide co-funding via partnerships with other national research funding organisations, such as the Irish Research Council, Science Foundation Ireland and the Fulbright Commission, to award and manage the delivery of research that is strategically aligned to EPA Research Priorities.
- International Collaborative Awards the EPA supports the participation of the Irish
 research community in international collaborative research through our engagement
 with a number of transnational initiatives that are strategically aligned to EPA Research
 Priorities and other activities. This includes the Horizon Europe Partnerships <u>Biodiversa+</u>,
 <u>Water4All</u>, <u>PARC</u> and <u>PianoForte</u> (EURATOM), as well as <u>JPI Climate</u> and JPI Water. Joint
 Transnational Calls under Biodiversa+ and Water4All will be launched in 2024.

- **Research Collaboration Agreements** with the Economic and Social Research Institute (ESRI) and the Institute of Public Administration (IPA) to deliver agreed programmes of research.
- Event Support for conferences and workshops that promote Irish environmental research (currently under review).

TABLE 1: INDICATIVE TIMELINE OF ACTIVITIES OF THE EPA RESEARCH PROGRAMME IN 2024. NOTE THAT ALL ACTIVITIES AND DATES ARE SUBJECT TO CHANGE.

Indicative Timeline	Activities	
28 th January	Interim reporting deadline for on-going EPA awards	
14 th February	Announcement of the EPA Research Call 2023 Grant Awards	
4 th April	2024 EPA Research Call: Launch	
17 th April	2024 EPA Research Call: Applicant Webinar	
25 th April	Knowledge Transfer Training for Funded Research Teams	
30 th May	2024 EPA Research Call: Submission deadline (applicants)	
6 th June	2024 EPA Research Call: Authorisation deadline (host organisations)	
June to September	2024 EPA Research Call: Evaluation of Proposals	
June	Launch of EPA Climate Fellowships Call	
July	Publication of EPA Thematic Research Priorities 2024–2026	
28 th July	Interim reporting deadline for on-going EPA awards	
August/September	Launch of the Fulbright-EPA Awards (closing in October / November 2024)	
September	Launch of the EPA-Irish Research Council Postgraduate Scheme (Closing in November 2024)	
September	Notification of Awards from the <u>2023 Biodiversa+ Partnership Joint</u> <u>Transnational Call</u> on <i>Nature-based solutions for biodiversity, human</i> <i>well-being and transformative change</i>	
September	Notification of Awards from the <u>2023 Water4All Joint Transnational</u> <u>Call</u> on <i>Aquatic Ecosystem Services</i>	

Indicative Timeline	Activities	
September	Launch of the 2024 Biodiversa+ Partnership Joint Transnational Call on Supporting societal transformation for the sustainable use and management of biodiversity (date, funding for researchers in Ireland and thematic area subject to change)	
September	Launch of the 2024 Water4All Partnership Joint Transnational Call on Water and circular economy (date, funding for researchers in Ireland and thematic area subject to change)	
October	2024 EPA Research Call: Notification of outcomes to all applicants	
October	Publication of the 2023 Climate Research in Ireland Report	
November & December	2024 EPA Research Call: Awards issued (with start dates out to 31 st March 2025)	

2.2. EPA Thematic Research Priorities 2024 to 2026

Following on from the previous <u>EPA Thematic Research Priorities 2021-2023</u>, updated research priorities for 2024-2026 will be published in mid-2024. These updated priorities will set the strategic direction for the EPA Research Programme over the next three years and will inform the development of targeted research actions, including our annual research call, fast-track to policy funding, and our various strategic and collaborative partnerships. The priorities will outline key evidence and research needs required to address policy and knowledge gaps in the medium and longer term (2026 and beyond). The thematic research priorities are being informed by a review of global, European and national priorities, as well as extensive consultation and engagement with EPA Research stakeholders at national and international level.

2.3. Delivering Clear Research Communications & Impactful Knowledge Transfer

EPA Research 2030 aims to fund and deliver high quality, responsive, timely and impactful research by putting science and innovation at the centre of environmental protection. In identifying and funding research that meets this requirement, it is important to ensure the best possible opportunities for research outputs to have an impact on policy and key stakeholders through clear research communications and proactive knowledge transfer activities.

Communicating Research

The EPA is currently undertaking a strategic review of our Research Communications to enhance and modernise our approach to communicating the impact and outputs of EPA-funded research. The review will incorporate communications at all stages of the research programme (before, during and after projects are completed) and with all key stakeholders and audiences (researchers, policy makers, the public etc.). The review will inform ways of facilitating better access to EPA research data and evidence, enhancing knowledge transfer and highlighting new opportunities for communicating the impact of EPA-funded research. The outcome of the review will facilitate modernised research communications in support of the objectives of *EPA Research 2030*.

Supporting Knowledge Transfer

EPA-funded research has the potential to contribute significant environmental, social, and economic benefits. An important challenge for environmental policy is to make the best use of research results and new scientific findings to inform and underpin policy development and implementation. While the EPA Research Programme has a well-established emphasis on knowledge transfer, *EPA Research 2030* puts a renewed focus on developing proactive knowledge transfer activities and supports, both at project-level (i.e. by the researchers) and at Programme-level (i.e. by the EPA). The EPA-IMPACT project commenced in October 2021 and will continue in 2024, working with EPA-funded researchers and policy actors to align research outputs to policy needs and facilitate proactive transfer of relevant research outputs into the policy system.

Monitoring the Impact of EPA-funded Research

In parallel to our planned communications and knowledge transfer activities, outlined above, it is important to identify, monitor and measure the outputs, outcomes and impacts of research where possible. Doing so facilitates a better understanding of the benefits of EPA Research and what types of research have the highest impact. A new Impact Indicators Framework will be developed in 2024 to monitor and report on the impact of EPA-funded research and monitor the delivery of the objectives set out in *EPA Research 2030*.

2.4. Other Research Activities

National Environmental Research Coordination

The EPA is responsible for the national coordination of environmental research in Ireland. This is facilitated by the EPA-led <u>National Environmental Research Coordination Group</u> (NERCG). This group aims to facilitate and promote coordination, synergies and liaison between relevant public organisations involved in environmental research in Ireland, in accordance with an agreed Terms of Reference. The NERCG currently has a membership of approximately 50 organisations and the group will meet twice in 2024. The annual report on Climate Research in Ireland 2023, will be prepared by the EPA with input from NERCG members and published in October 2024.

3. The Year in Review – 2023

While the Annual Action Plan provides an overview of planned EPA Research Programme activities for the year ahead, it also gives an opportunity to highlight key activity from the previous year.

The following graphics and tables provide an overview of EPA Research highlights in 2023.

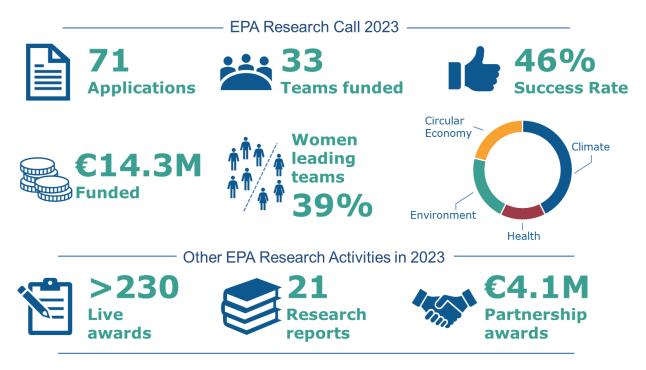


FIGURE 1: HIGHLIGHTS OF THE EPA RESEARCH CALL 2023 AND OTHER EPA RESEARCH ACTIVITIES IN 2023

 TABLE 2: SUMMARY OF NEW COMMITMENTS MADE IN 2023 UNDER THE EPA RESEARCH PROGRAMME. INFORMATION

 ON ALL EPA AWARDS CAN BE ACCESSED VIA THE ONLINE EPA RESEARCH DATABASE.

	Number of	
Funding Scheme	awards	Total Grant Aid Committed
EPA Research Call 2023 ¹	32	€13,852,358
EPA Research Call 2023 ²	1	€435,653
Other Funding Opportunities		
including		
EPA Research Call 2022 ³	1	€88,077
EPA Research Call 2023 (Waters		
of Life Project)	1	€839,987
2023 - EPA-Irish Research		
Council Scholarship Scheme	6	€585,828
2023 Fulbright-EPA Awards	2	€31,534
2023 EPA-Science Foundation		
Ireland/Irish Research Council		
Pathway Scheme	3	€744,782
2023 EPA-Science Foundation		
Ireland Public Service		
Fellowship ^₄	2	€95,798
DAFM 2023 strategic partnership	2	€500,000
2023 EPA Collaborative Awards		
(Biodiversa+ Partnership) ⁵	6	€1,059,892
2023 EPA Collaborative Awards		
(Water4All Partnership)	3	€449,013
IRC/HRB/EPA DOROTHY COFUND	1	€621,900
Event Support 2023 ³	8	€24,445

¹ Includes co-funding contributions from Met Éireann and Geological Survey Ireland.

² One award made under the Research Call 2023 was not issued until 2024, so is not included in the 2023 total.

³ Includes awards from 2022 schemes that were not issued until 2023.

⁴One award issued was later declined in 2024.

⁵ Includes co-funding from the National Parks and Wildlife Service, the Department of Agriculture, Food and the Marine, and the Marine Institute.

TABLE 3: RESEARCH REPORTS PUBLISHED IN 2023.

#	Report No.	Title	Organisation
1	Research 428	Percolation Testing of Soils for Onsite Wastewater Treatment	Trinity College Dublin
2	Research 429	Building Coastal and Marine Resilience in Ireland	MaREI: the SFI Research Centre for Energy, Climate and Marine, Environmental Research Institute, University College Cork (UCC) and Discipline of Geography, National University of Ireland Galway
3	Research 430	Sources, Pathways and Environmental Fate of Microplastics	Atlantic Technological University
4	Research 431	Production of Advanced Gaseous Biomethane Transport Fuel in An Integrated Circular Bioenergy System	Environmental Research Institute, MaREI Centre, University College Cork
5	Research 432	Valorisation Alternatives to Landfill for Organic Residues	Dublin City University
6	Research 433	Sense and Purify: Detect, Destroy and Remove Water Contaminants (SPy)	Dublin City University
7	Research 434	Persistent Organic Chemicals in the Irish Waste Stream	National University of Ireland Galway
8	Research 435	Industrial Water 4.0 - A Framework for Catchment- based Digitally Integrated Industrial Water Stewardship	Central Solutions Ltd
9	Research 436	Assessing Potential for North Atlantic Integrated Atmospheric Research	National University of Ireland, Galway
10	Research 437	The Phenology of Perennial Ryegrass and its Potential Contribution to Grassland Carbon Sequestration	University College Dublin (UCD)
11	Research 438	The Use of Earth Observation and Machine Learning for Industrial and Waste Crime Identification and Prevention	TechWorks Marine
12	Research 439	Research on the Environment, Health, Consumer Behaviour and the Economy: ESRI Research Programme on Environmental Socio-Economics 2020-2022	Economic and Social Research Institute
13	Research 440	Advances in Sustainable Nutrient Recovery for Management of Nitrogen Rich Residue Streams	The National University of Ireland Galway and the Irish Research Centre for Resource Efficiency
14	Research 441	Irish Natural Capital Accounting for Sustainable Environments (INCASE)	Trinity College Dublin

15	Research 442	Impact of NO2 on Health with Particular Emphasis on Vulnerable Groups	Trinity College Dublin
16	Research 443	Remote Sensing of Irish Surface Waters	National University of Ireland Galway Dundalk Institute of Technology and ICHEC
17	Research 444	Taxonomy and Phylogeography of Irish Arctic Char	Queen's University Belfast
18	Research 445	CROSSDRO: Cross-sectoral drought impacts in complex European Basins	Maynooth University
1	Evidence Synthesis Report 2	Circular Bioeconomy Outlook Study 2030–2050 in Support of Climate Action, Sustainable Food and Biobased Systems	University College Cork
2	Evidence Synthesis Report 3	Land Use Review: Fluxes, Scenarios and Capacity	Department of Natural Resources and the Environment, School of Science and Computing, Atlantic Technological University, ATU Galway
3	Evidence Synthesis Report 4	Land Use Review: Fluxes, Scenarios and Capacity Synthesis Report	Department of Natural Resources and the Environment, School of Science and Computing, Atlantic Technological University, ATU Galway