



Environmental Protection Agency  
An Ghníomhaireacht um Chaomhnú Comhshaoil



## EPA Research Programme 2021-2030

Fast-track to Policy Funding: Development of a monitoring programme to assess the impacts of climate change and ocean acidification for the Marine Strategy Framework Directive.

May 2022

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# EPA Research Fast-track to Policy Funding

This document provides the Technical Description for the Environmental Protection Agency (EPA) Fast-track to Policy Funding towards the development of a monitoring programme to assess the impacts of climate change and ocean acidification for the Marine Strategy Framework Directive.

Applicants should read the following carefully and consult the other documentation provided (e.g. EPA Research Programme 2021-2030 Fast-track to Policy Funding Guidelines and Terms & Conditions).

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## Introduction

EPA Research 2030<sup>1</sup> is the ten-year high-level framework for the EPA's research programme (2021-2030), designed to be agile, responsive and flexible.

Environmental policies must be underpinned by an in-depth level of knowledge that needs to be delivered through a systematic programme of environmental research and assessment. Research can play an important role by generating evidence that will support the design and implementation of effective and robust policy, evaluate its outcomes, and demonstrate its value. EPA Research 2030 will further our understanding of our environmental and natural systems. It will enable the outcomes from research to be put in action to protect and improve our natural and built environment.

## Fast-track to Policy Funding

Fast-Track to Policy funding aims to provide evidence synthesis, review of policies and best practices to answer urgent emerging policy questions (addressing emerging short-term policy needs). This funding will be provided as short-term evidence-based research studies.

| Fast-track to Policy Funding |  |
|------------------------------|--|
| Type of Project              | Short-term evidence-based research study   |
| Indicative Timeline          | From 2 weeks to 9 months   |
| Indicative Budget            | from € 5,000 to € 50,000   |
| Outputs                      | Short Summary Evidence Report, published by the EPA, and any other specific deliverables included in the topic description |

## Application Process

### Making an Application

Applications **must** be made online at <https://epa.smartsimple.ie>

You will also need to refer to the following documentation, which is available to download from the EPA's Online Grant Management and Application Portal or from the EPA website<sup>2</sup>:

1. EPA Research Programme 2021-2030 Fast-track to Policy Funding Guidelines and Terms & Conditions); and
2. EPA Online Grant Management and Application Portal System User Guides.

<sup>1</sup> <https://www.epa.ie/our-services/research/epa-research-2030/>

<sup>2</sup> <http://www.epa.ie/our-services/research/>

## Call Content

|                             |  |                         |          |
|-----------------------------|--|-------------------------|----------|
| <b>Topic Title</b>          | Development of a monitoring programme to assess the impacts of climate change and ocean acidification for the Marine Strategy Framework Directive. |                         |          |
| <b>Call Topic Reference</b> | Delivering a Healthy Environment 2022 Call Topic 12  |                         |          |
| <b>Project Type</b>         | Short-term Evidence-based Research Studies   |                         |          |
| <b>Maximum Budget</b>       | € 50,000   | <b>Maximum Duration</b> | 6 months |
| <b>Latest Start Date</b>    | 21 <sup>st</sup> June 2022   |                         |          |

### Policy Need

The principal EU legislation aimed at protecting the marine environment, the Marine Strategy Framework Directive (MSFD)<sup>3</sup>, is currently under review and will be finalised by July 2023. The MSFD does not currently consider climate change (or ocean acidification). Many MSFD descriptors are likely to be impacted by climate change including biodiversity, food webs, eutrophication and non-indigenous species. It is expected that the review of the Directive, will include the provision for considering the impacts of climate change. In the coming year, Member States will be required to inform this process and consider what climate change monitoring and assessment programmes should look like. In addition to this Ireland, along with 14 other contracting parties and the EU, agreed the OSPAR North-East Atlantic Environment Strategy (NEAES)<sup>4</sup> in September 2021. This strategy has 12 strategic objectives, three of which focus on climate change. The NEAES includes a commitment to assessing climate change impacts in the North-East Atlantic by 2023 and implementing a coordinated long-term monitoring and assessment programme for ocean acidification by 2025. Nationally under Ireland's recent Climate Action Plan (CAP)<sup>5</sup>, the government has made a commitment to develop a monitoring programme to assess the impacts of climate change for the Marine Strategy Framework Directive (Action 415) in 2022. This needs to be delivered by end 2022.

Climate change is one of the biggest threats to our marine environment. Ireland's ability to mitigate, and adapt to, climate change impacts on our seas will be informed by an understanding of how Essential Ocean Variables (EOVs) are evolving now, and in future projected scenarios. Forward planning to ensure these ocean variables are monitored on a continuous basis will allow us to detect baseline changes and assess the impact of climate change on ecosystem functioning. The need to understand the impacts of climate change on our environment has never been greater. It is clear the climate change and ocean acidification will shift the baselines for marine biota, impacting the functioning of all marine ecosystems. In order for Ireland to ensure the integrated delivery of commitments under the MSFD, the OSPAR NEAES and the CAP, there is a need to review current data streams on climate change and ocean acidification in Irish waters, identify gaps in methodology and long-term datasets, and produce a coherent monitoring and assessment programme.

<sup>3</sup> [https://ec.europa.eu/info/research-and-innovation/research-area/environment/oceans-and-seas/eu-marine-strategy-framework-directive\\_en](https://ec.europa.eu/info/research-and-innovation/research-area/environment/oceans-and-seas/eu-marine-strategy-framework-directive_en)

<sup>4</sup> <https://www.ospar.org/convention/strategy>

<sup>5</sup> <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>

This research will be the first step in ensuring Ireland will have a fit for purpose monitoring programme to ensure a coherent understanding of how climate change and ocean acidification are impacting the marine environment. This research will also help to inform Ireland's input into the review of the European MSFD, which will be finalised in 2023.

## Scope

Innovative research proposals are invited to:

- Provide an assessment of current monitoring and data collection of EOVs specifically related to climate change and ocean acidification in Ireland's MSFD area.
- Assess future monitoring, assessment, statistical analysis and modelling needs, to close gaps in current knowledge, and improve understanding of climate change-derived variability and change in environmental conditions (coastal and offshore) of EOVs.
- Analyse the coherence with regional monitoring and assessment programmes including those under the OSPAR Regional Sea Convention and investigate what international datasets can be used to fill the gaps in the spatial coverage of physical and chemical EOVs, e.g. salinity, temperature, oxygen in Irish waters.
- Identify links and gaps in the descriptor data streams (including elements and features in the MSFD EIONET<sup>6</sup> portal) and an assessment of the impact of climate change on biological elements under the MSFD.
- Where possible, identify operational funding required to fill the gaps.

The research should include: Fitness for purpose of current and future monitoring, operational monitoring needs versus project-based monitoring, spatio-temporal aspects of monitoring (e.g. fixed high-frequency, mobile platforms, ship-based sampling), coastal versus ocean monitoring needs, methodologies (noting international guidance [GOOS](#), [GO-SHIP](#), [GOA-ON](#)<sup>7</sup>), data quality required to discern a climate signal.

## Expected Outputs

The outputs from this project include:

- An EPA Evidence Synthesis Report. This report should be written in concise (maximum 30 pages), non-technical, and accessible English and be tailored for non-academics and policy makers. The report will include a series of recommendations for the development of a long-term monitoring programme to generate data time series of critical oceanographic parameters. It will also include different options for implementation and an analysis of strengths and weaknesses of these options in terms of practical feasibility, robustness of scientific knowledge that can be obtained and the capacity of this data to support national adaptation, conservation and environmental management efforts.

It is expected that monthly update meetings will be held.

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<sup>6</sup> European Environment Information and Observation Network

<sup>7</sup> GOOS: Global Ocean Observing System, GO-SHIP: The Global Ocean Ship-Based Hydrographic Investigations Program, GOA-ON: Global Ocean Acidification Observing Network

Please consult the EPA Research Programme 2021-2030 Fast-track to Policy Funding Guidelines and Terms & Conditions for the full list of expected outputs and interim/final reporting requirements.

## Indicative Timeframe

|  |  |
|--|--|
| Wednesday 11 <sup>th</sup> May 2022 at 11:00 GMT     | Call opening   |
| Wednesday 18 <sup>th</sup> May 2022 at 17:00 GMT     | Deadline for queries relating to the technical contents of this call |
| Wednesday 25 <sup>th</sup> May 2022 at 17:00 GMT     | Submission deadline  |
| Tuesday 31 <sup>st</sup> May 2022 at 17:00 GMT       | Approval deadline  |
| Latest start date: Monday 21 <sup>st</sup> June 2022 | Start of successful project  |

## Further Information

Information on current research projects being supported by the programme is available in the Research section of the EPA website: <http://www.epa.ie/our-services/research/>.

The following additional documents are available from the EPA website:

<http://www.epa.ie/publications/research/current-call-documents/>

- EPA Research Programme 2021-2030 Fast-track to Policy Funding Guidelines and Terms & Conditions.
- EPA Research Programme 2021 – 2030 – Communicating Research.

Other relevant EPA Research Programme Strategies and Policies are also available from the EPA website: <http://www.epa.ie/our-services/research/epa-research-2030/strategies-and-policies/>.

### For updates on EPA Funding opportunities:

1. Subscribe to [EPA Research Newsletters](#)
2. Follow us on Twitter [@EPAResearchNews](#)
3. Visit the [EPA Funding web pages](#)
4. Check the [Research Call Frequently Asked Questions web page](#)

Any queries that are not covered in the call documentation or on the FAQs webpage must be submitted to [research@epa.ie](mailto:research@epa.ie).