



An Roinn Comhshaoil,  
Aeráide agus Cumarsáide  
Department of the Environment,  
Climate and Communications

# The Department of Environment, Climate and Communications Research and Innovation Survey — Public Consultation

Fields marked with \* are mandatory.



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## **Department of the Environment, Climate and Communications Research and Innovation Strategy — Public Consultation**

The Department of the Environment, Climate and Communications has set out a vision of a climate neutral, sustainable, and digitally connected Ireland. This will involve leading ambitious climate and environment action across Government and society together with a fundamental shift in sustainable resource use and a transformation of our energy system while at the same time delivering world-class connectivity and cyber security. The Department has identified research and innovation as important enablers of its goals, and is one of a group of five Government Departments which invest significantly in research and innovation. Impact 2030, the national research and innovation strategy, outlines a strong role for the Department in delivering on Strategic Objectives in Climate, Environment and Sustainability (including Energy), and in Digital Transformation (including cyber security). During 2023, the Department is now developing its inaugural Research and Innovation Strategy.

Please complete this survey by 5:30 pm on Friday 11th August.

**Note 1: There are no mandatory consultation questions. Fields can be left blank if you do not wish to answer a particular question.**

**Note 2: Responses to each of the consultation questions is limited to 2000 characters.**

**Note 3: Copying and pasting text into the boxes directly from Microsoft Word may cause user experience issues. To avoid this, it is recommended to 'paste as plain text'.**

**Note 4: You can download a PDF copy of your completed survey after you have submitted it.**

\* Please enter your name

*Text of 5 to 200 characters will be accepted*

\* Please enter your email address

\* Please enter your occupation

If you are responding on behalf of an organisation, please enter the name of that organisation.

*200 character(s) maximum*

Job Title (if applicable)

What gaps do you see in the Department's current research and innovation activities? How should we address those gaps in the Department Research and Innovation Strategy?

*2000 character(s) maximum*

Data management and access to data: The Department of the Environment, Climate and Communications (DECC) and its linked agencies have a vast trove of observations, data, and information that should be made available rapidly and efficiently to researchers within and outside government, as well as to the general public. Geological Survey Ireland (GSI) provides a good model for prompt, open data sharing and access to core from onshore mineral exploration drilling. In iCRAG's experience, it can be more difficult to access information from some other DECC sources. The Geoscience Regulatory Office (GSRO) should release its digital datasets for free download via an online portal and expedite access to offshore core material.

Demonstration projects: The next step in geothermal energy as a pathway to meeting Ireland's climate targets is to develop demonstration projects. However, such demonstration projects involve complex tendering and oversight procedures. DECC should consult with research bodies to devise effective mechanisms to handle project management, including funding, tendering, and oversight of contractors, for large-scale demonstration projects.

Offshore subsurface characterisation: There is a major gap in R&I on the offshore subsurface environment that should be addressed as a priority to inform policies on geological storage of hydrogen and CO<sub>2</sub>, offshore wind development, and integrated marine spatial planning.

Dissemination of research results: DECC could improve the findability of research carried out in-house and by external researchers by following the EPA's model whereby each funded project requires a dissemination and communication plan and must produce a publicly available report that is collated on a searchable database.

What actions can the Department take to identify future trends in the areas under our remit?

*2000 character(s) maximum*

Stakeholder consultation: DECC could host consultative forums with a range of stakeholders, including academic researchers, on an annual or biennial basis to discuss information gaps and future trends in areas relevant to DECC's policy portfolio.

Annual competition for schools: To encourage public engagement with DECC R&I, DECC could run an annual competition for primary and/or secondary schools asking, "What have we forgotten?" in relation to a selected focus area for DECC. This would require a short document outlining DECC and its role, and the relevant focus area. An outside group such as an SFI Research Centre with a strong Education and Public Engagement programme could be engaged and provided with funding to publicise and administer the competition. Winners and a list of ideas generated from the competition should be publicised.

Are there specific thematic areas relevant to the Department's remit which you would like to see more research and innovation activity in? How can this be achieved?

*2000 character(s) maximum*

DECC's remit clearly includes the subsurface of the national territory. The subsurface in Ireland (onshore and offshore) is still poorly understood, particularly in some areas such as under Bord na Móna lands. Additional funding to both GSI and research performing organisations in the ROI focused on the subsurface should be strongly considered.

Achieving Ireland's Climate Action Goals will require Ireland to very quickly increase its capacity in both wind energy (particularly offshore) and geothermal energy. Increased funding, support, and stronger inter-Departmental coordination would help research organisations to identify and fast-track key research. DECC might consider developing coordinating mechanisms with other relevant R&I programmes, including SFI, the Department of Housing, Local Government and Heritage, and the Department of Agriculture, Food and the Marine to ensure optimum linkage of research and policy.

Have you views on the impact of disruptive technologies such as AI, Quantum and 6G as part of the digital transformation agenda and the implications of these technologies for the Department?

*2000 character(s) maximum*

How can the Department better communicate its research and innovation needs?

*2000 character(s) maximum*

Annual information session: Hold an information and consultation session annually with all R&I stakeholders to discuss upcoming information needs in DECC and related agencies (EPA, GSI, Bord na Móna, etc.) and to solicit ideas from stakeholders on how they could respond. The session should include researchers, research groups such as SFI Research Centres and other Centres at all HEIs, SFI-IRC, and Government Departments with shared concerns (e.g., Department of Housing, Local Government and Heritage on construction materials, Department of Agriculture, Food and the Marine on marine issues, etc.) and community groups affected by or interested in aspects of R&I activities supported by DECC. The information session could be linked to announcing winners in the schools competition (see Question 2) and so boost public involvement in setting the research agenda.

Online information portal: DECC could create an online hub that is regularly updated with all relevant R&I information.

How can the Department work more effectively to source evidence from the national research and innovation community to support its work in policy development, policy implementation, and the uptake of new technologies? -

*2000 character(s) maximum*

Rolling, open research calls: Policy questions often need quick answers that traditional research calls with fixed topics and firm closing dates cannot easily accommodate, nor do they allow researchers or policy makers to take advantage of spontaneous opportunities. iCRAG suggests that DECC sets up a facility for holding rolling, open calls for timely research projects on topics of policy interest. Researchers could apply for funding at any time and receive a rapid response. Such projects are likely to be shorter than a regular PhD research project and should include the opportunity for Master's and Post-Doctoral projects.

Fellowship programme for researchers and policy makers: Creating fellowship and/or exchange programmes where both researchers and civil servants could trade places and work collaboratively in each other's environment would greatly increase understanding between policy makers and the R&I community and facilitate the exchange of information. iCRAG welcomes GSI, EPA, and SEAI involvement in SFI's Public Service Fellowship programme but we would also welcome the opportunity to host civil servants for similar placements in academia. Such a programme would provide relatively low cost but potentially high impact expert scientific advice within the Department. It would also equip researchers with a better understanding of the needs and requirements of the Department that they could utilise in their own research and teaching, providing a pool of prospective candidates for full-time work in the Department in the future.

Master's research programmes: Master's research degrees can provide relatively fast (~2-year) responses to targeted research questions that DECC may need addressed. Supporting MSc research can offer a more agile pathway to answering certain research questions, in addition to the longer-term, more advanced work at PhD, post-doctoral, or other research levels.

How can the Department engage more effectively with all stakeholders in the national research and innovation system? If you are responding on behalf of an organisation, please state how the Department could more effectively engage with your organisation.

*2000 character(s) maximum*

Improved communication: More communication between DECC and research organisations like iCRAG would be very beneficial for all parties. While we recognise the need for confidentiality in certain DECC activities, it would be helpful to have more transparency via webpages and/or direct personal interactions or information sessions so both DECC and external researchers are aware of initiatives and needs as they develop. Regular communication would help to ensure there are researchers available and equipped to handle projects as needed. A designated Point of Contact for Research and Innovation in DECC would help to facilitate this communication.

Co-design and co-production of research and innovation projects: One of the best ways for DECC to ensure that its policy needs are met is for DECC personnel to be directly involved in the design of research projects and in their implementation. Ongoing conversations between policy makers and researchers before a project starts and throughout its duration would help to clarify what research outputs would best help to inform policy making and would keep policy makers aware of research findings so that both the research agenda and decision making could be adapted to any change in circumstances.

Multi-stakeholder workshops: Events like the recent iCRAG Workshops on offshore wind and on peatlands, the iCRAG2022 event at Croke Park, and the GSI annual meeting provide good venues for a broad range of stakeholders, including DECC, to share information and build networks, and could be a model for focused interactions. Cross-community workshops help to promote integrated and informed decision making about R&I needs and capabilities that should encourage coordination within and beyond government. Workshops hosted or sponsored by DECC on key research priorities, with involvement from local authorities, could also improve cross-community interaction and communication that could lead to more focused research projects and outcomes.

Should the Department seek to grow its capacity to carry out in-house research? If yes, how can this be achieved?

*2000 character(s) maximum*

**Leveraging national expertise and infrastructure:** The Department's primary research priority should be to collect and provide open access to high-quality foundational national data, much of which must be consistently collected over long time periods, a function that government is ideally placed to deliver. These data are absolutely vital as we address the climate and biodiversity emergencies. It is essential that DECC optimises its data collection, analysis, curation, and dissemination activities to provide the basis for informed policy making and for research activities within and far beyond DECC.

DECC should work with other government departments and external research groups to determine sites for national environmental monitoring (onshore and offshore) and then determine how to implement the data acquisition and data management required for such sites for long (decadal) time frames.

An increase in other DECC in-house research would be welcome, especially given their access to confidential reports and datasets and their understanding of future policy directions. However, it may be more cost-effective and efficient to fund external research where expertise and infrastructure already exist outside DECC, especially if DECC provides improved rapid access to data and physical samples to external researchers. It also provides opportunities to leverage non-Exchequer sources of funding. The Department could encourage DECC staff to co-supervise research at other research organisations. Research in academic settings provides opportunities to early-career researchers to receive qualifications that equip them for the workforce in the public or private sectors.

Are there examples internationally of Government strategies on research and innovation in climate, communications / digital, circular economy, cyber security, energy or environment that we should examine? If so, can you provide details?

*2000 character(s) maximum*

Are there any other matters you wish to raise in relation to the development of the research and innovation strategy?

*2000 character(s) maximum*

**Funding mechanisms:** DECC should match its funding mechanisms to the constraints on researchers and research bodies. It will be important to align funding structures so they comply with the requirements that SFI put in place for Exchequer funding in their upcoming Future Centres call. As noted in Question 1, devising ways to handle project and financial management mechanisms for demonstration projects should be a priority for DECC, in consultation with research-performing bodies.

DECC may wish to consider the funding model offered by the Petroleum Infrastructure Programme (PIP), which was initiated during petroleum exploration offshore Ireland. Exploration companies paid into this fund as part of an annual fee for offshore areas. The PIP funding was used to support research on cross-cutting

issues in which all contributors would benefit from the research. This model of funding would be appropriate for the evolving offshore wind sector and could support research to tackle shared issues. The scheme would ideally be started early in the life cycle of the industry for maximum benefit.

Coordination with other government research and innovation initiatives: DECC's R&I strategy should align with and strengthen other government strategies, without duplication or conflicting protocols. Researchers already have to track multiple potential sources of government research funding. These sources should be streamlined and coordinated, ideally via a central clearinghouse, so policy makers, researchers and other stakeholders could identify opportunities for funding and locate research results. A central clearinghouse for all DECC and DECC-related research activity would help to identify research opportunities, gaps, and results.

In addition, DECC should illustrate how its strategy interlinks with other R&I programmes including those within DECC's sphere of influence (EPA, GSI, etc.) and programmes run by SFI – IRC, Enterprise Ireland, and other government bodies.

## **Contact**

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