



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.



An Roinn Comhshaoil,  
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Department of the Environment,  
Climate and Communications

## 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*

Gaps:

Prior to the current strategy development work DECC does appear to have had a dedicated person/unit within the Department developing and/or delivering on research and innovation (R&I) e.g. Head of Innovation. DECC does not primarily conduct R&I itself but rather delivers this through the Agencies under its remit. Some of these Agencies are engaged in R&I activities, however they are primarily focused on policy-based research and academic focused research which exists at a relative low technology readiness level (TRL). The existing goals as outlined in the Statement of Strategy use aspirational language, which contain no specific or measurable targets.

As reported in the Research & Development Budget 2021-22, DECC reported a near 15% drop in Research & Development expenditure (€5,756,000 Vs €4,920,000). While Inland Fisheries demonstrated a small increase in total expenditure, direct research expenditure dropped by 16%.

The SEAI have spent ~€22M on R&D. This is an increase of 124%. However, deployment figures for renewable and ocean energy have not been separated from R&D spend and so it is impossible to understand if this is a true increase in expenditure.

Addressing Gaps:

The establishment of a dedicated internal innovation unit with clear strategic objectives directly aligned with the Department's own strategy and with demonstrable short-term impact i.e. climate change mitigation, sustainable energy, and circular economy initiatives.

The Department and its Agencies' R&I focus could be more applied in nature, especially in terms of climate mitigation activities beyond energy efficiency alone. Given the wide and diverse strategic goals in the Statement of Strategy, this would be of particular importance.

Development of specific, measurable metrics on which the Department can both demonstrate ambition and track progress.

Expansion of RD&I expenditure. Of the 14 only 3 of (Inland Fisheries, SEAI & EPA) reported having R&D expenditure.

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

*2000 character(s) maximum*

To identify future trends, the Department can:

- Establish a dedicated foresight unit to monitor emerging technologies, global developments, and best practices.
- Engage in horizon scanning exercises and conduct regular consultations with experts and stakeholders to identify emerging trends. These experts should be of both an academic and industrial nature and could possibly be delivered through the establishment of a working group which meets on a biannual basis.
- Collaborate with the relevant research centres already established and funded by SFI, EI and IDA Ireland e.g. the CONNECT Research Centre.
- Liaise in a more formal manner with Horizon Europe and the relevant Directorates aligned with the stated five Strategic Goals. To do this, DECC could consider taking responsibility for specific Cluster research activities with the establishment of a National Contact Point for same. For example, DAFM currently hold a National Contact Point for Food, Bioeconomy & Agriculture within Cluster 6. These activities are directly aligned with DAFM's strategic research priorities and allows them to access a pan-European and more international viewpoint.

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*

The Strategic Goals outlined in the Department's Statement of Strategy are very broad. Thematic areas that merit more research and innovation activity include:

- Climate resilience and adaptation strategies.
- Renewable energy and energy efficiency technologies.
- Development of circular business models.
- Digital solutions for climate monitoring and environmental data management.

To achieve this, the Department can:

- Offer directly funded and targeted research grants and funding opportunities in these thematic areas, with a particular applied, business focus.
- Foster public-private partnerships to accelerate innovation and technology deployment. These could be delivered through collaboration with the existing Technology Gateways/Centres.
- Encourage interdisciplinary research collaboration, in particular between various government departments, to address complex challenges effectively.

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*

Disruptive technologies like AI, Quantum, and 6G have the potential to transform the Department's operations and outcomes. These technologies can enhance climate modelling, improve environmental monitoring, and optimize resource management. However, careful consideration of ethical, privacy, and security implications is crucial to ensure responsible deployment. Here, governance and regulation of these new technologies will be of paramount importance.

Again, building strong relationships with the existing Technology Gateways and Centres, who work at the coalface of these technologies, would ensure that the Department can keep abreast of new developments within these technologies.

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

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- Establish a clear communication strategy to articulate research and innovation priorities to stakeholders and the research community.
- Organize regular workshops, forums, and conferences to engage with researchers, academia, and industry.
- Leverage digital platforms and social media to disseminate information about funding opportunities and research requirements.
- Attend and exhibit at industry focused events such as IRDG's 'Funding Future Innovation' events.

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*

- Build relationships with representative organisations (such as IRDG) in order to access enterprise focussed evidence of challenges encountered in research and innovation activities. These can then be used to inform policy development and uptake.
- Establish collaboration partnerships with research institutions, including joint research projects and industry advisory panels.
- Create a user-friendly online portal to facilitate knowledge exchange and data sharing between the Department and the research community.

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*

To engage effectively with stakeholders, the Department should:

- Map and identify the stakeholders.
- Organize regular stakeholder consultations to understand their needs and priorities.
- Establish formal mechanisms for feedback, such as advisory boards or focus groups.
- Foster partnerships and collaborations with industry, NGOs, and academia to co-create solutions.
- Ensure advisory committees in place for ongoing engagement and collaboration.
- Digital Platforms: Leverage technology to create interactive platforms where stakeholders can collaborate, share insights, and access up-to-date information. Digital platforms can also host virtual meetings, webinars, and online consultations.
- Regular review of engagement strategies to assess effectiveness.

As an organization, we believe the Department can enhance engagement with IRDG by:

- Our ongoing involvement with the DECC R&I Strategy Advisory Group and potential future participation in implementation review groups.
- Engage early during policy formation to ensure industry perspectives are considered.
- Organise regular meetings, roundtables, forums with IRDG to discuss industry challenges, department policies and potential collaborative efforts.
- Attend open events such as IRDG Funding Future Innovation to meet with Industry at the coalface of Irish research and innovation.

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*

Yes, absolutely. This would allow the Department to take direct control of the strategic priorities outlined and most effectively deliver impactful outcomes.

To achieve this the DECC should:

- Build an internal innovation team with a dedicated research lead and a minimum commitment of 5 years of funding to establish and lead such a function. This person should be of sufficient seniority that as to liaise at Sec Gen and Ministerial level.
- Develop a specific and measurable R&I strategy which is both fully aligned with the strategic goals but also demonstrates ambition and impact.
- Establish research labs or units within the Department to conduct targeted studies on areas of high importance and impact, including an internal innovation fund.
- Collaborate with research institutions to facilitate knowledge transfer and skill development with a particular applied and enterprise focus.

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*

Yes, several countries have excellent research and innovation strategies in the areas above:

- Climate: The UK's Clean Growth Strategy focuses on decarbonization, low-carbon technologies, and sustainable practices to combat climate change.
- Communications / Digital: Finland's Digital Finland 2025 initiative prioritizes digital infrastructure, cybersecurity, and digital skills development for economic growth.
- Circular Economy: The Netherlands' Circular Economy Programme emphasizes sustainable production and consumption, waste reduction, and circular design.
- Cybersecurity: The U.S. National Cyber Strategy outlines comprehensive measures to strengthen cybersecurity resilience and protect critical infrastructure.
- Energy: Germany's Energiewende aims to transition to renewable energy sources and improve energy efficiency.

Analysing these international strategies can offer valuable insights and best practices for Ireland's research and innovation strategy.

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

*2000 character(s) maximum*

Overall, we commend the Department's commitment to fostering research and innovation. A forward-thinking, tangible and inclusive strategy will drive Ireland's progress towards a sustainable and digitally enabled future. Of key importance will be the interaction and integration and demarcation of DECC's R&I strategy with those of other Government Departments to ensure effective responsibility and delivery.

## Contact

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