



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,
Aeráide agus Cumarsáide**
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

To prevent global warming, we must generate new understanding and knowledge on how existing technologies and installations can be deployed to quickly replace the use of fossil gas and oil with the use of renewable electricity.

To do this at pace, the knowledge must be put into the public domain without restriction on use. The generation of private intellectual property should be avoided, as should funding of research at lower Technology Readiness levels. Universities gravitate to research that is novel and difficult, that is not what we need at present.

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

2000 character(s) maximum

Host conferences, physical and online, but also online conversations.

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

Heating of Buildings.

We need to resolve solutions that are scaleable and readily replicable, particularly for existing buildings, Irish settlement patterns, and energy uses. e.g. Heat network distribution and thermal storage systems with water stored at different temperatures.

Existing practices are inadequate. e.g. Installing pipe and radiator networks that do not result in lower and more uniform return temperatures.

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

It is appropriate to ensure that data can be readily accessed and exchanged rather than locked in proprietary systems that prevent it being analysed with new data.

For GDPR compliance, the Dept will need to ensure that users can redirect access to their data to different providers. e.g. On home energy use for heat and power, remote control of heat pump/ boiler hybrids, home and EV battery systems.

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

2000 character(s) maximum

List CO2 emissions in detail with the likely TRL* of means to reduce them.
List the innovation needs of others in an online marketplace.
Host moderated directories of capabilities to allow private collaborations to develop.

*Technology Readiness Level

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

The quality of evidence is critical if groupthink and pandering to incumbents is to be avoided. e.g. Biogas and hydrogen can be utilised in a lot of existing infrastructure, but high prices are likely to be set by international demand.

It is fine to copy stuff when it works in other places. e.g. Drones in Ukraine, district heating in Denmark.

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

Government officers have difficulty in expressing opinions and judgements, so should host fora where robust exchange can take place among expert commentators and practitioners.

Transparency and an outline of rationale are critical.

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

Before that it might check that it has enough scientifically or perhaps legally trained senior staff or engineers. e.g. To be able to commission internal or external research competently. Arms length agencies may be better able to recruit, retain, and motivate specialists.

To cut emissions quickly, there is a lot of research to be conducted on how to deploy technology at high TRLs quickly.

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

The UK Small Business Research Initiative that seeks private sector solutions to public policy problems is probably worth looking at.

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

2000 character(s) maximum

Adaptation to a changing climate warrants consideration.
e.g. Heat demands will increase if the AMOC/ Gulf Stream stops.
Increased wind and driving rain can mean that existing building fabric no longer works.

Contact

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