



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

- Short: Lifecycle for national and international funding can be very prohibitive (~12 months from proposal to project start). This may be due to availability of reviewers and lengthy review process. Shorten this timeline if possible.
- The Department could provide funding for smaller feasibility projects to support goals of EU in advance of EU Calls.
- Medium: Multi-annual funding opportunities for researchers and infrastructure across Climate, Environment, Communications, Cyber Security, Energy – aligned to EU funding opportunities allowing fast review and turnaround to start projects.
- Long-term: Work with researchers and advisers to develop a roadmap of national and international (in particular EU) funding opportunities across Climate, Environment, Communications, Cyber Security, Energy. This planning (including budget) will be very impactful as it demonstrates DECC are committed to, aligned with, and fully support EU goals.
- Long-term: Continue to provide support in form of Department co-funding for further Digital Europe Programme projects in addition to IrelandQCI 'Building a National Quantum Communication Infrastructure for Ireland' and the National Cybersecurity Coordination and Development Centre (NCC-IE) across all pillars if EU funding is available to support this.

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

2000 character(s) maximum

- Regular consultation with key stakeholders (public, industry, academia). In particular with research institutes such as Walton Institute and Tyndall National Institute that have a very high success rate in securing, leading and delivering National- and EU-funded projects in a timely manner across Climate, Environment, Communications, Cyber Security, and Energy.
- Create a Board of Advisors with representatives across Climate, Environment, Communications, Cyber Security, Energy who meet quarterly to discuss global and national challenges such as UN Sustainability Goals and routes to quickly trial solutions including emerging disruptive technology.
- Host quarterly workshops in Climate, Environment, Communications, Cyber Security, Energy with technical demonstrations and use cases.

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

- TA1: Optical and Quantum Communications (Terrestrial, Submarine, Free Space, and Satellite)
- Nominate a TA Champion that is an expert in the area of research and who can liaise with key stakeholders and understands and can leverage funding from multiple sources.

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

- Quantum: Quantum Technology is the enabling emerging technology. All existing technologies e.g. sensors, IoT, edge computing, AI will be enhanced by the power of quantum physics. Quantum computing and quantum machine learning will solve complex problems in fractions of the amount of time it takes traditional computers. Quantum sensors offer greater sensitivity and could be used in the future for early detection of diseases. Quantum simulations will be used to predict new materials and biochemical reactions that cannot be modelled with classical computers. Quantum communications will detect threats and secure communication networks and the sensitive data they transmit.
- Early education, demonstration and adoption are key to achieving global acceptance and use of disruptive technologies.

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

2000 character(s) maximum

- With advisory board identify 3-5 high priority impactful use cases across Climate, Environment, Communications, Cyber Security, Energy. Address the challenges and demonstrate impactful research and innovation solutions on a small scale initially. Scale the solution through key stakeholder meetings engaging more end users through demonstration. The number of use cases will grow over time, gather metrics into leaflets with testimonials from key end users e.g. Government Departments, large MNCs and local SMEs.
- Host key stakeholder meetings with national and international invited speakers (thematic area experts) showing use cases and demos quarterly – continuously update the register of key stakeholders, use cases, end users and demonstrations.

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

- ◆Hold regular meetings with coordinators of large National and EU projects to discuss how they are pioneering the use of new technologies. Attend education and training workshops provided by these projects to assist in scaling up deployment of new disruptive technologies. Coordinators can provide an overview of key impacts from these projects.

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

- Host regular workshops, webinars, offer funding possibilities.
- Continue to visit Walton Institute regularly to discuss synergies across national and EU Research and Innovation landscape. Develop a roadmap for securing future funding and addressing research challenges with proposed disruptive technology.

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 – Secondments from academia. Second key personnel (part-time) from Universities – this will ensure the researcher and research organization understand the requirements of the Department and experience the Department first-hand. The seconded personnel can train researchers for the Department and collaborate on key projects.

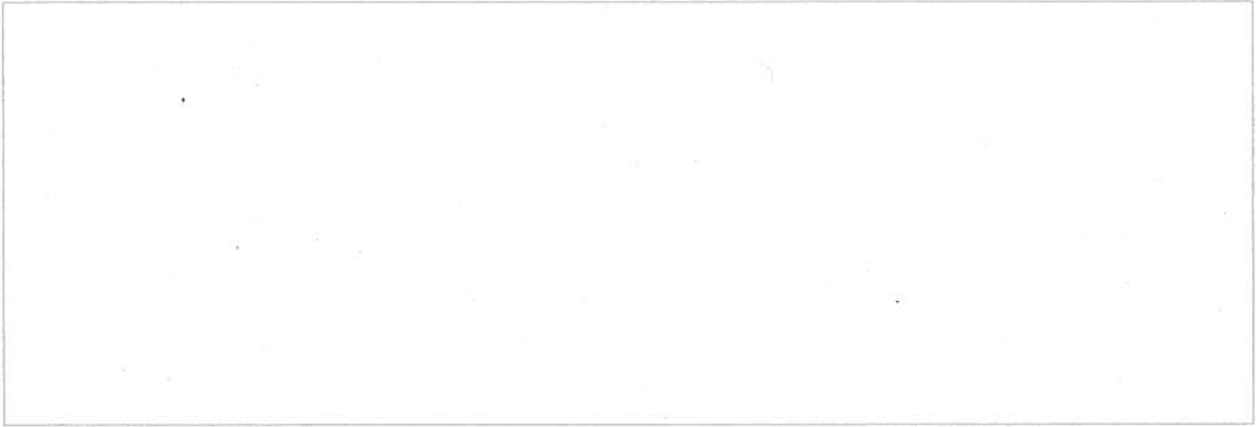
Are there examples internationally of Government strategies on research and innovation in climate, communications / digital, circular economy, cyber security, energy or environment that we should examine? If so, can you provide details?

2000 character(s) maximum

https://commission.europa.eu/publications/european-commission-digital-strategy_en
<https://www.digitaleurope.org/>
<https://www.gov.ie/en/publication/8994a-national-cyber-security-strategy/>
Europe's Digital Decade: digital targets for 2030, https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en
Proposal for a Decision establishing the 2030 Policy Programme "Path to the Digital Decade" <https://digital-strategy.ec.europa.eu/en/library/proposal-decision-establishing-2030-policy-programme-path-digital-decade>
<https://www.gov.ie/en/consultation/6cf65-public-consultation-on-the-department-of-the-environment-climate-and-communications-research-and-innovation-strategy/>
<https://www.ncsc.gov.ie/ncc-ie/>
<https://digital-strategy.ec.europa.eu/en/activities/digital-programme>
https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/connecting-europe-facility_en
<https://www.esa.int/>
<https://www.gov.ie/en/publication/2aa15-national-smart-specialisation-strategy-for-innovation-2022-2027/>
<https://www.gov.uk/government/publications/uks-digital-strategy/uk-digital-strategy>
<https://www.nsf.gov/digitalstrategy/>
<https://sdgs.un.org/goals>
<https://www.gov.ie/en/publication/adf42-harnessing-digital-the-digital-ireland-framework/>
<https://enterprise.gov.ie/en/publications/publication-files/national-space-strategy-for-enterprise-2019-2025.pdf>
<https://eur-lex.europa.eu/eli/reg/2021/696/oj>
https://defence-industry-space.ec.europa.eu/eu-space-policy_en
<https://www.enisa.europa.eu/> <https://www.enisa.europa.eu/news/supporting-policy-developments-to-achieve-a-high-common-level-of-cybersecurity>
<https://eur-lex.europa.eu/eli/dir/2022/2555>
https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age_en
<https://www.ncsc.gov.ie/ncc-ie/>
<https://digital-strategy.ec.europa.eu/en/policies/destination-earth>

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

2000 character(s) maximum



Contact

evan.argue@decc.gov.ie