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

The national cybersecurity strategy 2019-24 promises to fund a significant initiative in cybersecurity research in order to pursue Ireland's goals of shaping the future of the internet and supporting a free, open, peaceful and secure cyberspace. As an experienced researcher in cybersecurity and international relations I commend such an initiative. However, I would like the Department to avoid the common mistake of considering cybersecurity as an exclusively, or even primarily, technological issue better dealt with by the computer science community. Hence, the gap I have identified is the lack of a specific research infrastructure and funding for academic research investigating cybersecurity from the social sciences. To shape the future of the internet, research of internet governance and cyber diplomacy is key. Similarly, to support a peaceful and secure internet, research on how states use cyber to pursue their national interests (war, espionage, influence ops, trade) is also critical. To do this and reap the benefits of rigorous research and innovation, the Department should promote the establishment of research centers in universities studying cybersecurity from the perspective of the social sciences (international relations, law, political science, communications). This should be accompanied by funding for academics, PhDs, and Post-docs to support research on policy-relevant aspects of cybersecurity. The Department could identify the research topics to be funded and incentivize Department officlas' participation in such programs. I personally had to turn down PhD candidates with strong research projects on cybersecurity because they could not afford the costs of living in Dublin. This is missing out on valuabel talent! Two of the world's most advanced cyber powers (the USA and the UK) have already acknowledged this and established somewhat similar initiatives to what I propose. Initiative which I discuss later in the relevant section of this form.

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

2000 character(s) maximum

The kind of research centers I proposed in the other section would be an ideal instrument to identify future trends in cybersecurity and other emerging technologies. The history of research and innovation shows us that the nature of academic research is particularly apt at looking at long term dynamics and speculating about the future.

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

Research and innovation in cybersecurity and other emerging technologies from the perspective of the social sciences. Establishment of a specific research infrastructure and funding to support and advance such activities.

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

N/A

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

2000 character(s) maximum

N/A

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 research centers I proposed above will contribute to achieve this. In fact, in these centers the planning, undertaking, and dissemination of research will be made in close collaboration between academia, the Department, and ideally other stakeholders like the large number of private ICT companiees based in Ireland.

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

N/A

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

N/A

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

This is a notable initiative by the UK government. The establishment of The Academic Centres of Excellence in Cyber Security Research. I have several colleagues working in these centers and their feedback has been very good. An interesting idea I would suggest the Department considering is embedding social scientists and computer scientists in the same units working next to each other.
https://www.ukri.org/about-us/epsrc/centres-and-institutes/academic-centres-of-excellence-in-cybersecurity-research/

Other examples are from top universities in the USA.
Stanford's Center for Internet and Society https://cyberlaw.stanford.edu/
Harward's Cyber Project https://www.belfercenter.org/project/cyber-project
These initiatives are instead fully centered on social science's research.

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

2000 character(s) maximum

I hope this helps and good luck with the new strategy. Feel free to get in touch if you want to discuss further.

Best,

Contact

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