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

Environmental Health Service of the Health Service Executive

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

a)   Current research and innovation activities may not adequately include health as an outcome to be assessed. The climate crisis is a health crisis and the greatest threat to global health this century. The World Health Organisation advocates a Health in All Policies (HiAP) approach that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. The HiAP approach recognizes that population health is not merely a product of health sector programmes but is largely determined by policies that guide actions beyond the health sector. Any activity in other sectors such as transport, environment, agriculture etc. impacts population health.

(b)   We recommend that any R&I activity incorporate an assessment of threats to public health and potential health gain from climate action. This could include researching factors in the environment that make people vulnerable and exposed to climate related risk. Any activity that is being researched to build resilience and adapt to climate change should also assess the potential impact on population health be it positive or negative, intended or unintended. Some examples might include: From a health threat perspective: what the impact of declining water availability and quality will have on population health in the context of water borne infections? From a health gain perspective: what is the health impact of an active travel policy on cardio vascular health?

We recommend that the strategy include an examination of how to effect behaviour change, using health messaging and other health promotion approaches to effect change. How to effect a move towards more sustainable diets and physical activity?

We recommend attention be placed on older persons as a key cohort to include in any research and innovation activities. For example the use of technology to support older persons to mitigate and adapt.

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

2000 character(s) maximum

Collaborate with all sectors to gather data of relevance. An example may be collaboration with the HSE, the Health Protection Surveillance Centre (HPSC), the EPA, Met Eireann, DAFM, Teagasc to identify trends in the environment that may contribute to an increased risk of infectious diseases. Public Health experts have already outlined the threats posed by climate change including rises in waterborne, foodborne and vector borne diseases including those of a zoonotic nature. For example examining the connections between current agriculture policy and population health and more specifically connections between the environment and the incidence of infections such as cryptosporidium and VTEC.

Sustainable Development Goal 3: Health for All of all ages is dependent on interconnections with every other SDG and identifying future trends is dependent on a connection to the Health Sector. For example: are there connections between the management of medical waste and the presence of pharmaceuticals in our natural environment and water bodies?

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 connection between the Circular Economy and Food is an area that could see more research and innovation. EPA data indicates that current food waste in the commercial sector is estimated to be 303,000 tonnes per annum (100,000 tonnes from retail and distribution and 203,000 tonnes from restaurants and food service) (EPA Food Waste Report 2021). At the same time that all this food is wasted 660,000 people in Ireland are living in poverty (CSO 2020).

How can we build a food system that is circular? How do we ensure our food never creates waste? How do we redistribute surplus edible food to people who need it providing nutritional balance? How do we convert food by-products and waste food into other products/energy? These are just some of the questions to address under the theme of Food Waste and the Circular Economy.

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

At this point in time we are unsure of the potential for disruptive technologies and there are many unknowns.

However, AI can have a positive effective as it can be used in climate/environment research and modelling, forecast carbon prices and in education and behavioural change (e.g. using data on behavioural patterns to 'nudge' people to choose more sustainable options, or to calculate the carbon footprint of products to help individuals make informed choices. In health we often say 'make the healthy choice the easy choice'. AI can also help in climate adaptation and resilience in terms of hazard forecasting.

These technologies must ensure no one gets left behind and be used in an inclusive way for all people, such as older people living in isolated rural areas

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

2000 character(s) maximum

Connect to the academic community to communicate research and innovation needs.

·   Research needs should ideally originate from the bottom up and be communicated from the perspective of individuals with personal stories to humanise the need.

If the question is really about communicating findings of research and innovation then

·   Avoid excessive negative news which only helps to create a sense of powerlessness in people

·   Communicate practical, achievable solutions for ALL to ensure no one gets left behind – a core objective of the SDGs

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

Collaboration. There must be a multi-agency approach to gather evidence, data and analysis that includes health. The evidence gathered must have utility and be practical in the real world in order to be effective.

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

Open a dialogue with all other departments, including our own Environmental Health Service of the Health Service Executive to facilitate engagement on collective climate action that aims to deliver a holistic response on climate. Mitigation is perhaps easier as every sector will have mitigation targets that can be measured quantifiably with clear timelines for achievement. Adaptation and Resilience building is more difficult but in order to be more effective will require a structure on the threats. In the context of Health some threats are well known and in particular Severe Weather Events. A unified approach under a Disaster Risk Reduction/Disaster Risk Management lens is one way to address sudden onset threats such as floods, windstorms and heat. Disaster Risk should look at the entire emergency cycle that includes Prevention, Mitigation, Preparedness, Response, Early Recovery and Rehabilitation and not just research and innovation around response mechanisms. There should be a balance with a big emphasis on research into prevention. For example it may be easier to address mosquito borne disease risks through sound urban planning that prevents certain mosquito species from gaining a foothold in Ireland.

For slow onset threats a different kind of forum may be necessary

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 it should, possibly under the direction of a new Government Chief Science Adviser. Capacity must be achieved rapidly as in the context of climate action the situation is an emergency as declared by the Government in 2019. If as suggested earlier a holistic approach is needed across all sectors and departments in-house research capacity must engage in a collaboration way with the wider research community and avoid a siloed and possibly narrow approach to research certain problems. Some solutions to problems for example have multiple co-benefits and it is important to be aware of those connections. For example active travel may be viewed as a way to reduce transport emissions but this in turn delivers co-benefits in terms of air quality and respiratory health but is also part of the solution to chronic disease and physical inactivity.

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

In the context of Disaster Risk Reduction the Department should be aware of the Sendai Framework 2015 - 2030 on Disaster Risk Reduction and the four key priorities starting with understanding disaster risk. This all falls under the UN Office for Disaster Risk Reduction (UNDRR)
https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

CDC's Building Resilience Against Climate Effects (BRACE) Framework
https://www.cdc.gov/climateandhealth/brace.htm

National Institutes of Health - Climate Change and Health Initiative Strategic Framework
 https://www.nih.gov/sites/default/files/research-training/initiatives/climate-change/nih-climate-change-framework.pdf

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

2000 character(s) maximum

Sometimes the urge to innovate is counterproductive. Some lessons have already been learned and some technologies have already been proven. Sometimes to be innovative is to use existing technologies and approaches to be a leader in climate action.

Contact

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