2050 Challenge: DNSH assessment

Version: 01 September 2022

Challenge: The 2050 Challenge seeks transformative, forward-looking solutions to current and future challenges in Ireland becoming climate neutral and resilient by 2050.

This assessment is intended to outline the expected compliance of applications submitted under the 2050 Challenge with the principle of Do No Significant Harm (DNSH), i.e., that the solutions proposed will not have foreseeable harmful impacts in respect to any of the six environmental objectives.

While this assessment outlines broad expectations for how the challenge call does not intend *prima facie* to support solutions that will negatively impact any of the environmental objectives, all applications under the National Challenge Fund must include a DNSH assessment at the project level to confirm compliance of the proposed solutions with the DNSH principle. Applicants should refer to the guidance in the DNSH template document available on the challenge website.

In the context of the DNSH assessment for the 2050 Challenge, it is noted that the programme remit for the National Challenge Fund expressly excludes research that directly or indirectly supports the further use of fossil fuels, waste landfills, incinerators etc. In addition, it is required that all applications to the 2050 Challenge are aligned with the Green Transition and must represent research and innovation that focuses on the low-carbon economy, resilience and adaptation to climate change. Please see the programme remit section of the call document for more information on this.

Updated DNSH self-assessments will be submitted at each stage of the programme. Reviewers will receive these assessments as part of the proposal documentation and will be required to confirm that sufficient information has been provided in the self-assessment to demonstrate compliance. Applicants or awardees may be required to provide additional information to SFI upon request.

Does the potential life-cycle impact of the solution developed as a result of this research have potentially harmful impacts on achieving the named environmental objective?		
1. Climate change mitigation *i.e., Is the project output expected to lead to significant GHG emissions?*	Yes	No
Ireland has committed to pursue a climate-resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy by 2050. This challenge aims to support development of solutions to achieve this objective and the focus of this programme is to accelerate the development of technological innovations to achieve this goal and mitigate climate change impacts. It is expected that applications to this call will propose solutions that will cause either no increase to GHG emissions or will reduce GHG emissions. Potential areas of research are highlighted that have been identified in key national policies as future technologies that can support decarbonisation of the Irish economy. All of these examples are aimed at supporting the development of technologies that will contribute to climate mitigation when deployed. All applications to the 2050 Challenge will include a DNSH assessment to confirm that the proposed solution will not cause significant harm in respect to the climate mitigation objective. Applicants will be required to use the best available scientific evidence to		X

complete this assessment, but are also advised to include appropriate considerations as part of their research programme. For example, in the context of climate mitigation, applicants should consider the inclusion of life-cycle GHG assessment of the researched technology where appropriate.		
2. Climate change adaptation i.e., *Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?*	Yes	No
The projects funded under this call are not expected to lead to increased adverse impact of the current climate or the expected future climate, on the measure itself or on people, nature or assets. The projects will be focused on developing enabling technologies to allow a transition to an environmentally sustainable and climate neutral economy in line with Ireland's national climate objective. This research should contribute neutrally or positively to climate change adaptation. All applications will include a DNSH assessment to confirm that the proposed solution will not cause significant harm in respect to the climate change adaptation objective.		X
3. The sustainable use and protection of water and marine resources *i.e., Is the project output expected to be detrimental?* *(i) to the good status or the good ecological potential of bodies of water, including surface water and groundwater; or* *(ii) to the good environmental status of marine waters?*	Yes	No
Projects are expected to focus on environmentally sustainable solutions to help Ireland achieve its national climate objective and it is expected that any researched technology will have better environmental performance than best available alternatives. Where there are any potential risks to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters from the researched technology, product or other solution, these must be evaluated and addressed as part of the project DNSH assessment.		X
4. The circular economy, including waste prevention and recycling *i.e., Is the measure expected to:* *(i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or* *(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or* *(iii) cause significant and long-term harm to the environment in respect to the circular economy?*	Yes	No
This challenge call is not expected to lead to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources, or to significantly increase the generation, incineration or disposal of waste and the long-term disposal of waste is not expected to cause significant or long-term environmental harm, rather it is expected that any researched technology will have better environmental performance than best available alternatives.		X

Any potential risks to the circular economy objectives from the researched technology, product or other solution will be evaluated and addressed as part of the project DNSH assessment.		
5. Pollution Prevention and control *i.e., Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?*	Yes	No
The aim of this call is to identify solutions that will support the transition to a environmentally sustainable and climate-neutral economy. The challenge call is not expected to lead to any significant increases in the emissions of pollutants into air, water, or land, and it is expected that any researched technology will have better environmental performance than best available alternatives. Any potential risks to generate a significant increase in the emissions of pollutants to air, water or land from the researched technology, product or other solution will be evaluated and addressed as part of the project DNSH assessment.		X
6. The protection and restoration of biodiversity and ecosystems *i.e., Is the measure expected to be:* *(i) significantly detrimental to the good condition and resilience of ecosystems; or* *(ii) detrimental to the conservation status of habitats and species, including those of Union interest?*	Yes	No
There is no anticipated harmful impact of this call on the protection and restoration of biodiversity and ecosystems. This programme aims to fund research that allows a transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate neutral economy and it is expected that any researched technology will have better environmental performance than best available alternatives. Any potential risks to the good condition or resilience of ecosystems or to the conservation status of habitats and species from the researched technology, product or other solution must be evaluated and addressed as part of the project DNSH assessment.		X