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I am pleased to provide these comments on the consultation paper for the successor to the Strategy for Science, Technology and Innovation, and am grateful for the opportunity to do so. I comment from the perspective of a scientific researcher based on the island of Ireland, with a particular interest in health and social care.

Public engagement: there should be greater public engagement in the selection of priorities for new research and in the dissemination of the findings of research. New technologies, including social media and the use of audio or video podcasts, make this much easier than even a decade ago. This may even provide opportunities for full engagement in some areas by, for example, allowing the public to choose which research projects get taken forward with public funding. Ultimately, the public are the funders and the recipients of government-funded research and, as such, should have a greater say in what gets funded and greater access to what gets discovered.

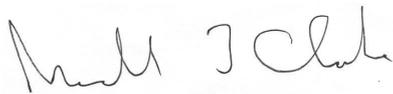
Avoiding waste: a fundamental principle for all new scientific research should be that the studies are designed and conducted in ways that minimise the waste that is widely recognised as a challenge for research internationally.¹ This would include robust prioritisation methods for all new government-funded research; prospective registration and transparency around new studies; ethical, scientific and environmental justification of new studies; and a requirement for the publication of their findings.

Evidence synthesis: one way to minimise waste is to require systematic reviews or evidence synthesis of appropriate research before every new study to show that genuine uncertainties remain to be answered² and after each study to show that new interventions, actions and strategies are likely to do more good than harm if introduced to practice.^{3,4} This issue is not specific to health and social care. It would help to ensure that the impact of scientific research on practice is cumulative⁵ and that innovations are not implemented without a sound scientific basis for their likely benefits.

Evaluation: the introduction of innovations that may impact on the health, wealth or wellbeing of the public and society generally should take place within an evaluative framework to ensure that the innovation does more good than harm on the outcomes it was intended to effect. These outcomes should be identified in advance, ideally through consensus among the relevant stakeholders. This might build on the work already done in relation to the concept of "core outcome sets" in health and social care.⁶

I hope that these brief comments are useful, and should be happy to provide more detail if that might be helpful.

Yours sincerely,



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