

### **SFI's consideration of the 2021 Expert Panel Report on the future SFI Research Centre Programme.**

In March 2021, SFI convened a panel of international experts to inform SFI's development of the future (Phase 3) SFI Research Centres programme.

Five international experts were selected based on their knowledge and experience of international research and innovation ecosystems, higher education systems, research commercialisation and collaborative industry-academic research. These experts were:

- Erik Sander, Executive Director, Florida Engineering Experiment Station, University of Florida
- Niamh Nic Daéid, Director, Leverhulme Research Centre for Forensic Science
- Celia Caulcott, former Vice-Provost of University College London
- Johanna Buchert, Executive Vice President, Natural Resources Institute Finland
- Vladimír Šucha, European Commission (Former Director of the JRC)

This panel engaged in discussions with SFI, and with a series of key stakeholders in research, higher education, education and public engagement, industry and Government. Informed by these discussions, as well as their direct and considerable experience of international research and innovation systems, the panel produced a report which advises SFI on a future (Phase 3) model for the Research Centres programme. This report discusses the strengths of the current SFI Research Centres programme, and provides a series of recommendations to secure its continued excellence and future evolution.

The following table summarises the key recommendations and how SFI has considered each of these recommendations in the development of the future Research Centres programme.

<b>Expert Panel Recommendation</b>	<b>Consideration in developing Future SFI Research Centre Programme</b>
<b>Hosting Model</b> SFI Research Centre Programme should stay within the Higher Education system home	Future SFI Research Centres will continue to be hosted by eligible Higher Education Institutes across the Republic of Ireland.
<b>Consolidation</b> SFI should consider consolidation of Research Centres coming from Phase 2, and maybe even some entering Phase 1 into new, larger RCs, consolidated along major R&I disciplinary themes that the Irish government feels are critical to the nation's future and in which Irish universities can excel.	Consolidation will be an option in the upcoming programme. Existing Centres may join together, an existing Centre may join with groups/entities that are new to the programme, or parts of existing Centres may separate off to join with others. SFI wishes for all groups to take the opportunity to strategically explore their place in the research ecosystem, examine how they have developed, and how they can best develop in the future.  All applications to the new programme will need to align with one of five national research priorities.

<p><b>Research Excellence</b></p> <p>Research excellence is absolutely critical as the lynchpin to success in this consolidated RC model and must continue to be prioritized in order to achieve greater international recognition.</p>	<p>Research Excellence will be a key objective of the Future RC Programme and a key evaluation criterion on which applications to the programme will be assessed.</p>
<p><b>ITs and TUs</b></p> <p>The RCs should strongly link to the Institutes of Technology and Technological Universities.</p>	<p>This recommendation is closely aligned with the objectives in the SFI Strategy, and as in current Research Centres, the future programme will continue to support strong linkages between researchers in Universities, Technological Universities and ITs.</p>
<p><b>Application-Oriented Staff</b></p> <p>Recruitment of application-oriented staff alongside the PIs with high academic ambition is a necessity.</p>	<p>SFI is actively exploring ways to support increased connection and collaboration between SFI Research Centres and higher TRL research initiatives funded by other national agencies and departments.</p>
<p><b>Industrial impact</b></p> <p>Industrial impact can be achieved and should continue to be assessed via three routes:</p> <ul style="list-style-type: none"> <li>• Collaborative funding from industry, focused on a precompetitive high risk research portfolio aligned to the RC,</li> <li>• generation of economic impact through technology licensing and future growth companies through an active spin-off policy, and</li> <li>• direct industrial funding, that may be matched by the centre or not. SFI should give consideration to the risks associated with this particular measure, not least that the research is likely to be led by the company and therefore may move away from the strategic direction of the centre.</li> </ul>	<ul style="list-style-type: none"> <li>• Industry contributions towards the full economic cost of collaborative research will form part of the cost share model of Future Research Centres</li> <li>• The transfer of licences and the spinning out of start-up companies are key objectives of the future programme.</li> <li>• Cash from contract research or the provision of research services cannot be counted towards Centre industry cost share. Although SFI recognises that these are important activities in which the Research Centre can engage with industry partners, they are not viewed as Collaborative Research Projects in which the industry partner is sharing risk, making an intellectual contribution to scoping and implementing the project, the research results can be disseminated, and new IP can be generated</li> </ul>
<p><b>Research Centre Autonomy</b></p>	<p>SFI will continue to liaise with our partners in the HEIs to best support the continued success of the SFI Research Centres programme.</p>

<p>Ability to recruit leading researchers and innovators working in the fields of focus of the centre.</p> <p>Ability to incentivise and reward PIs employed by a host university to be strategically aligned and engaged with the centre.</p> <p>There should be some element of discretionary funding for the director, so that they can invest in new and emerging areas relevant to the strategic direction required of the centre</p>	<p>Future Research Centre budgets can include a Strategic Research Fund for the Centre Director to direct and support new and emerging areas of research aligned with the Centre</p>
<p><b>Term of Funding</b> A long-term funding commitment, enabling strategic direction</p>	<p>Centres funded through the future programme will be awarded 8 years of funding. (Current RC award term is 6 years).</p>
<p><b>National R&amp;I ecosystem</b> The Panel suggests that SFI could work with partners across government to explore the issues of balance and complexity within the R&amp;I system supported by the government</p>	<p>SFI is working with colleagues in other research funding agencies and departments to explore ways to support increased connection and collaboration between SFI Research Centres and the rest of the National R&amp;I system.</p>
<p><b>Cost Share Model</b></p> <p>The incentive to bring in industry funding is retained, but at a lower level than the current Phase 2 model.</p> <p>One may design a more creative way of counting the contribution from SMEs</p> <p>Centres should be allowed to include funding leveraged from other government departments, such as Health, Education and Agriculture as part of their funding model, as this recognises the strategic impact of a centre.</p> <p>Funding from EU sources should continue to be incentivised.</p>	<p>In the Cost Share Model for Future Centres-</p> <ul style="list-style-type: none"> <li>• The minimum industry cash cost share requirement is half that of a current Phase 2 Research Centre</li> <li>• Incentive for SME cost share, in the form of a reduction of industry target by equal amount to SME cost share received.</li> <li>• Exchequer co-funding arising from strategic opportunities to partner directly with a government agency, body or department, or secured through other specified State supports facilitating partnership with enterprise, can form part of the cost share model (maximum 10%)</li> <li>• The future cost share model maintains a high level of ambition with regard to the drawdown of NENC funding.</li> </ul>

<p><b>Education &amp; Training</b></p> <p>The development and enhancement of higher and further education, PhD and early career researcher skills and specifically the development of educational specific training plans including discipline related educational and training needs and derived public engagement activities incorporating for example, but not limited to, data literacy, science literacy and science communication.</p>	<p>Future Research Centres will embrace a cohort-based approach to PhD training, incorporating transversal, cross-sectoral and discipline-specific skills training programmes. For students, a cohort model means that they have a network of peers for co-learning and support that are at the same stage of their scientific journey, in different disciplines but unified through the scientific objectives of the Centre.</p>
<p><b>Education &amp; Training</b></p> <p>For education of postgraduate and early career researchers:</p> <ul style="list-style-type: none"> <li>• Independently funded education champions for each research centre with the specific remit to develop in partnership with academic partners training and education for PhD and early career researchers associated with the Research Centres.</li> <li>• Associated dedicated budgets for training and education.</li> </ul>	<p>As above, Future Research Centres will embrace a cohort-based approach to PhD training.</p>
<p><b>Education &amp; Public Engagement</b></p> <p>The incorporation of science participation at primary and secondary school levels and the development of science and data literacy across these age groups into an education and public engagement portfolio that is appropriate for each research centre individually and coordination collectively across the research centres.</p>	<p>Whilst all types of well-constructed education and public engagement activities may be considered, SFI and its reviewers expect that Research Centres will develop a varied and balanced portfolio of engagement activities that carefully considers where the most impact may be generated within the specific context of the research discipline area and sector.</p> <p>However, SFI recognises the importance and value of education interventions and would foresee this activity continuing in the future. SFI envisages that it will remain for each individual Centre to determine how such interventions might contribute to their overall strategic objectives.</p>

<p><b>Education &amp; Public Engagement</b></p> <p>Instigation of RC led citizens' assembly or citizens' jury for some / all research centres to bring society into the heart of research</p>	<p>Participation of researchers in relevant citizens' assemblies would be seen as a positive form of public engagement and SFI recognizes the efforts coordinated under the current Programme for Government (<a href="https://citizensassembly.ie/">https://citizensassembly.ie/</a>). It is not however considered within the remit of SFI or its Research Centres to coordinate such national activities.</p> <p>Research Centre leaders will however be encouraged to continuously review and reflect the voice of the public in the shaping of the Research Centre strategy.</p> <p>The national conversation on research and science, <a href="#">Creating Our Future</a>, is relevant also in this regard. It captured the voice of the public and reflects their ideas, priorities, hopes and concerns. The <a href="#">ideas submitted</a> together with the <a href="#">campaign recommendations</a> and the recommendations of the <a href="#">Expert Committee</a> are available online.</p>
<p><b>Education &amp; Public Engagement</b></p> <p>Funded public engagement managers for each centre who are public engagement and/or science communication specialists and have relevant expertise in these areas.</p> <p>Formation of an effective education and public engagement working group taken from those specialists within the RCs across all centres who will meet regularly to share good practice, celebrate success and share lessons learnt.</p>	<p>SFI welcomes this recommendation and will continue to fund Public Engagement team members in funded Centres whose role it is to facilitate researchers to engage with the public.</p> <p>SFI has had an EPE Manager network in place since 2014 for the funded Research Centres . The SFI EPE team has worked closely with this group in 2022/2023 to devise a more structured programme of knowledge sharing opportunities and these activities will be continued into future phases.</p>
<p><b>Education &amp; Public Engagement</b></p> <p>Separate budget lines to specifically support education and public engagement in an agile way</p>	<p>Future Research Centres will not be required to leverage cost share against budget allocated to EPE activities.</p> <p>Budget will be structured to allow the ongoing and agile development of EPE activity during the course of an award.</p>

