

Report on the
AIREN Project Event on
Governance and Management of Large-Scale Research Programmes
Held on Wednesday 8th September 2021

This AIREN Event presented an overview of the governance and management structures large-scale research centres / programmes have in place - sharing perspectives from the PI, Operations Team members, and the PhD Researcher experience. The Centres / Programmes featured are sponsored by various funding mechanisms, including programmes run by Funding Agencies (SFI, EPSRC, and NERC); Government initiatives through the Northern Ireland Department for Business, Innovation and Skills and the Belfast City Deal; and Industry sponsorship.

We thank each of our presenters for their time and contribution at the AIREN event on 8 September 2021:

Dr Siobhan Roche, Director, Science for the Economy, Science Foundation Ireland, gave opening remarks highlighting the importance of Research Centres in providing a platform for academia, industry and government organisations to work together to build critical mass of excellence and to deliver impactful work. Siobhan outlined how the SFI Research Centres Programme has evolved, with 16 world-leading SFI Research Centres now established and performing strongly – many of which already have a number of collaborations with Northern Ireland. SFI carries out a holistic assessment of the Centres through the 6-monthly monitoring against KPIs and the bi-annual qualitative review by an Expert International Panel. SFI is continuing to grow the Research Centres Programme further with plans to develop: a more cohesive Centres ecosystem; proto-centres for scaling-up existing groups of expertise to full Research Centre levels; a model for 3rd term funding; and to strengthen collaboration across the island of Ireland.

Mr John Oliver, Centre Manager, I-Form, SFI Research Centre for Advanced Manufacturing, UCD, outlined the structure and funding model of SFI Research Centres, noting that the percentage of industry and non-exchequer/non-commercial funding required as a percentage of total budget increases as a Centre matures. John also presented the range of KPIs I-Form reports on to SFI, commenting that 'what gets measured, gets done!' The KPIs include metrics on: the level of co-funding; academic excellence; human capital; European funding; Entrepreneurial activity; education and public engagement participation; gender balance in Centre leadership; and the measurable **IMPACT** across pre-defined areas of economic and societal benefit is also a critical metric for success. He shared an example of an I-Form Research Programme, outlining the Platform and Spoke model, and described the governance and management committees I-Form has in place, and the various roles within the Operations Team that support the Centre.

Mr Bryan Naab, Postgraduate Researcher, UCD, shared his experience as a PhD student in the **EPSRC-SFI Centre for Doctoral Training (CDT) in Advanced Metallic Systems**. He outlined the many benefits that being involved in a CDT presents, including that it provides a structured training programme full of planned learning and team building activities. It also gives the opportunity to build strong links with the other universities participating in the CDT including in his case, access to research facilities at the University of Sheffield and the

University of Manchester. The CDT also includes support from an industrial sponsor, giving the opportunity to work on real world problems and to gain insight into industry.

Professor Alistair McIlhagger, School of Engineering, Ulster University presented **NIACE** (Northern Ireland Advanced Composites Engineering Centre) and **AMIC** (Advanced Manufacturing Innovation Centre) both of which are industry led and work in the crucial 'valley of death' Technology Readiness Levels (TRL) of 4-6. NIACE is a collaborative centre between Ulster University and Queen's University Belfast, who co-own the Centre's building, and Bombardier Aerospace. Alistair explained that with investment from Department for Business, Innovation and Skills (BIS), Invest Northern Ireland, and Bombardier Aerospace, NIACE was re-launched earlier this year and provides an open-access composites innovation space to support industry R&D and SMEs in many ways including providing technical and skills training services, and access to specialist equipment, and links with / access to the High Value Manufacturing Catapult (HVM Catapult). NIACE is also part of the AMIC that is established through the Belfast Region City Deal and operate at the interface between academia and industry, to create new opportunities for innovative manufacturing in the Belfast City Region.

Professor Jennifer McKinley, School of Natural and Built Environment, QUB, presented the **QUADRAT Doctoral Training Partnership (DTP)** which is funded on a 5-year basis by the UK Natural Environment Research Council (NERC). Jennifer shared her insights on how the studentship concept is changing and the important role of DTPs in providing a transformative platform for the PhD journey. QUADRAT brings together research and training centres of excellence in biological sciences and geosciences from the University of Aberdeen and Queen's University Belfast. Jennifer outlined elements of the PhD platform they provide, including for example the QUADRAT Charter Agreement between student, supervisor and the QUADRAT Management Board, that also underpins NERC terms and conditions. She told about the T-shaped Training Programme that is available to students, the opportunities they have to do internships, and to work with industry through the CASE studentships. Jennifer outlined QUADRAT's governance structures (and respective stakeholders) comprising of a Management Board to run the DTP, a Steering Group to direct it, and an Oversight Group to oversee it.

Ms Emma Hayes, Postgraduate Researcher, QUB, shared her experience as a PhD student on the **QUADRAT Doctoral Training Partnership (DTP)**. She emphasised how the DTP structure and the environment it creates really enhances the PhD. She explained that over 5 years the DTP will recruit 5 cohorts of 20 students each and the community this creates presents opportunities, both within and across cohorts, for mentoring incoming students and for sharing resources and knowledge. Working on a CASE partner project also enables her to gain insight into industry. She highlighted the annual QUADRAT symposium that takes place to support the communication and dissemination of research across cohorts and institutions.

Professor Nigel Scollan, School of Biological Sciences, QUB, is **Director of the Institute for Global Food Security (IGFS)** which is one of 3 global institutes in QUB and it sits in their Faculty of Health and Life Sciences. He presented an overview of the Institute and the 3 grand challenges it addresses: Farms of the Future; Global Food Integrity; Food Nutrition & Health and the respective research themes they have. He explained the relationship between the IGFS has with the university school and faculty structures. He also outlined the Institute's membership and the range of Schools and disciplines they come from. Nigel spoke of the governance structures the Institute has including an International Scientific Advisory Board and an Industrial Advisory Board. The latter was established in 2016 to ensure IGFS research & innovation portfolio aligns with industry needs. It also gives a gateway for technology transfer from the Institute to industry and investment support.

Dr Ciara O'Connor, Senior Research Manager, ESIPP (Energy Systems Integration Partnership Programme), UCD chaired the Questions and Panel Discussion session. She opened the discussion with a question about the current HEA North South Research Partnership Programme and how it can augment current funding for research centres. Other questions related to SFI's plans for Proto Centres and the resourcing for governance and management that will be provided for them. Ciara picked up on a recurring point in all presentations about the drive for impact and addressing industry needs, and she invited each Panellist to comment further on balancing the role / input of industry in their respective centre / programme. Postgraduate Researchers, Bryan and Emma, were asked to comment further on the challenges of juggling their time across multiple stakeholders. The session closed with comments from Panel members about the importance of also supporting / involving the social sciences and humanities in large scale STEM centres and programmes.

ⁱ The AIREN Project is being delivered with support from InterTradelreland's Synergy initiative. Synergy is a cross-border cluster initiative set up by InterTradelreland, the cross-border trade and business development body. It aims to scale cross border collaboration among SMEs and other players such as universities, third sector organisations and government agencies using cluster and networking supports.