

RESEARCH AND INNOVATION STRATEGY 2015-2016



FOREWORD

CIT's research and innovation activities have more than doubled since we launched the previous comprehensive research strategy in 2007. Our research expenditure now stands at €20m annually, we have over 200 research postgraduate students and 100 contract researchers and have added two new research buildings all of which drive research and innovation across and between disciplines. Each year we complete research contracts with over 120 companies. The international dimension to our research and innovation includes collaborators from top-ranked universities in Europe, the US and Asia. Whilst our established high impact centres of excellence in prioritised areas continue to thrive, we have steadily expanded the breadth of our activities across the Institute. It is in these expanded areas in Business, Humanities and Creative and Performing Arts that we are already seeing significant growth.

This new research and innovation strategy will take the progress achieved to date to a new level, to create, advance and apply knowledge and understanding for the benefit of our students, stakeholders and the communities with whom we engage and influence. The efforts of our research community will improve quality of life through discovery, dissemination, exploration and application of research and innovation and further enhance the competitiveness of industry, helping to position them for success in the global marketplace by leveraging our understanding of the business environment in which they operate. While we have set ourselves challenging targets, I am confident that we will achieve them through the combined professionalism, motivation and hard work of our staff and students.

DR BRENDAN J. MURPHY
PRESIDENT



SUMMARY

RESEARCH & INNOVATION STRATEGY

The Strategy for Research and Innovation 2015-2016 (hereafter RI2016) strengthens CIT's position as a driver of educational and economic development in the region and beyond. It builds on the significant research strengths in a number of thematic research areas which have been the primary focus of research and innovation activity within the Institute. It supports the growth of new and emerging areas and establishes a strong platform for raising the international profile of the Institute. RI2016 supports the full spectrum of activity from fundamental research through to enterprise support, knowledge transfer, and commercialisation and places a strong emphasis on the promotion of interdisciplinary research. RI2016 aligns with CIT's Strategic Plan 2012-2016 and takes account of ongoing changes to the landscape of Higher Education in Ireland.

VISION MISSION RESPONSIBILITY

The Institute's Strategic Plan sets out its **vision** for research and innovation as

“RESEARCH WILL INFORM AND SUPPORT ALL OTHER ACTIVITIES INCLUDING TEACHING AND LEARNING, AS WELL AS INNOVATION, ENTREPRENEURSHIP AND OTHER ENTERPRISE SUPPORT ACTIVITIES. THIS STRATEGY WILL FOCUS ON DEVELOPING EXPERTISE, CRITICAL MASS AND RESEARCH EXCELLENCE IN SPECIFIC THEMATIC RESEARCH AREAS.”

CIT's research and innovation **mission** supports economic development and social progress, with particular impact within the region it serves. CIT research:

- Engages in excellent research that has social and economic impact in the region and beyond
- Supports the creation of sustainable employment, with an emphasis on high-value jobs in areas of strategic importance to Ireland
- Attracts and supports new businesses
- Generates a pool of talented individuals who, through scholarly activities and career development pathways, are capable of working in an academic and business environment
- Collaborates with international partners that are recognised for their academic, research and business excellence

Responsible research and innovation is at the heart of CIT activity. The Institute supports excellence through integrity, ethics, professionalism and respect, and strives to support the CIT research community and the people we serve by providing the highest quality leadership. Through excellent research we provide research postgraduates with the best start to their academic or industry careers, we provide excellent support for contract researchers in order to attract the best researchers to join us, we provide industry with optimum solutions to help them to be more competitive and sustainable and we generate new knowledge which has real value at a global level.

FOCUS

Acknowledging that CIT cannot be competitive across too many fields of research, the Institute has identified Thematic Research Areas (TRAs) as areas of particular research strength and has focused on developing high-impact research centres and research groups in these. The TRAs were chosen based on CIT's traditional strengths in Engineering and Science and growing strengths in Business and Humanities, and the Creative and Performing Arts, alongside their importance to and potential impact for the region and the national economy. The key criteria used in this prioritisation exercise were:

- Relevance (potential impact)
- Capability (track record/existing expertise)
- Critical Mass (capacity, both current and potential)
- Sustainability (alignment with national and EU priorities)

The TRAs are:

1. Information and Communications Technologies (ICT)
2. Life Sciences and Wellbeing
3. Photonics
4. Maritime, Energy and Sustainable Environment (MESE)
5. Exercise and Health
6. Entrepreneurship, Competitiveness and Innovation (ECI)
7. Creative and Performing Arts
8. Education and Learning (E&L)

The first four TRAs are anchored in the Faculty of Engineering and Science, while Exercise and Health and ECI are anchored in Business and Humanities. The final TRA, Creative and Performing Arts, is anchored in the CIT Cork School of Music and the CIT Crawford College of Art and Design. Fundamental to this research strategy is the requirement that each of the TRAs are in areas where there is identified viability and sustainability both from a funding and capacity perspective. The engine rooms of the TRAs are the designated centres and groups¹. TRAs play an important role in delivering research, innovation and solutions for enterprises that drive economic output and growth, and on supporting staff and student development and the enhancement of the teaching and learning within the Institute. CIT will continue to build on its established research and innovation ecosystem, consisting of the underpinning research outputs (including human capital and know-how) of its TRAs, the applications driven activities of their associated groups and centres, and the formal industry engagements through the Industry Liaison Office and the Rubicon Business Incubator. The support for focused research activities is also consistent with the plan to increase the number of existing academic staff with Level 9/10 qualifications as well as being an attractant for research-active new staff.

While the disciplines covered by the TRAs range from the broader (e.g. ICT, MESE, ECI, E&L) to the more focused (e.g. Photonics) an increasing feature is the growing multidisciplinary activities between them. Multidisciplinarity is of increasing importance, allowing solutions to be developed for complex problems which often have a global market. The CREATE research building, which houses the TRAs in Photonics, and Life Sciences and Wellbeing, was established specifically with this multidisciplinary approach in mind. Other examples are the extent of the involvement of ICT and ECI researchers in maritime-related research where software development, embedded systems and innovative business models are of growing importance in this particular application domain, and likewise the collaboration between bioinformatics specialists and experts in childhood health to the Life Sciences.

¹Detailed information on the definition and structure of a centre and a group are contained in the Researcher Career Framework, Part 1 (Research Organisational Structure). As part of the implementation of the structure, each research entity (centre or group) will undergo a formal designation process. Until that is complete, the Institute recognises the research entities listed in table 1.

TRAs vary in the scale of R&I activity which they currently support. Four of the TRAs already contain a Research and Innovation Centre which has achieved significant critical mass and track record of activity, whilst two others have established activity at the scale of research groups. These research groups have a more focused research activity and are growing rapidly, with a roadmap aimed at becoming of centre scale. The Research and Innovation entities presently associated with each of the TRAs are indicated in Table 1.

Table 1 (Indicative research entities as of January 2015)

Thematic Research Area (TRA)	Research and Innovation Centre	Research and Innovation Group
Information and Communication Technologies (ICT)	NIMBUS – Centre for Research in Embedded Networked Systems	Sigma Software Group
Life Sciences & Wellbeing	BioExplore Research Centre (incorporating MEDIC)	
Photonics	CAPPA – Centre for Advanced Photonics and Process Analysis	Astronomy and Instrumentation Group (AIG)
Maritime, Energy and Sustainable Environment (MESE)	HALPIN Research and Innovation Centre	Mechanical Systems Simulation & Optimisation Group (MeSSO) Sustainable Infrastructure Research Group (SIRG)
Exercise and Health		Spraoi
Entrepreneurship, Competitiveness and Innovation		Hincks V-Linc
Creative and Performing Arts		Under discussion
Education and Learning		Technology Enhanced Learning Workplace Partnerships & Experiential Learning

The establishment of designated research entities and other initiatives will ensure that the Institute reaches the researcher and innovation targets required to have the maximum impact within the region and beyond, while retaining and developing its distinct mission and role in the region.

COLLABORATION

Research at CIT is increasingly multidisciplinary and translational in nature, and as such, involves external stakeholders that include not only enterprises and academia but also local government, health services, state agencies and representative bodies. *RI2016* recognises that collaboration is central to achieving its goals. CIT will build on its already well developed strategic research partnerships with University College Cork's (UCC) research centres of excellence.

Formal agreements are in place linking the Tyndall National Institute (with NIMBUS and CAPP), the Alimentary Pharmabiotic Centre (with BioExplore) and in the maritime and ocean energy area linking UCC's new Beaufort Research Centre (with the Halpin Research Centre at the NMCI) – and through the iMERC initiative which also includes the Irish Naval Service. CIT is also partnered with UCC in the PRTL1-5 funded *Ed4Life* structured PhD programme in the life sciences, and in the Tyndall-led structured PhD programme in photonics (*INSPIRE*).

It is the intention that this platform of existing research collaborations will be further developed as a priority objective for the southern Regional Cluster as identified in the HEA's landscape document.

RESEARCHER CAREERS

People are at the heart of all research and innovation activity and the CIT research and innovation culture supports the appropriate career development of our most important asset, starting with the early-stage PhD researcher and leading through to Senior Research Fellows and academic staff. Whilst endeavouring to provide a long term career path for our most talented researchers, we recognise that many contract researchers will seek long term employment elsewhere. We will ensure that these researchers, when they leave academia, are well placed to make a strong contribution to the social and economic life of the region and the country, by providing them with the requisite skills and training, including placements in industry.

As part of an ongoing review of researcher employment and deployment at the Institute, and mindful of the necessity to retain excellent staff, the Institute has developed a transparent Researcher Career Framework which draws on experience nationally. This initiative is considered to be essential to the long-term sustainability of CIT's significant research activity.

CIT recognises that the teaching elements of contracts for academic staff place very significant constraints on their capacity to engage in research. To grow the participation of academic staff it is vital that initiatives be developed to facilitate staff who wish to engage in, or expand, their research and innovation activities. A key objective of *RI2016* is to develop and implement such initiatives. Notwithstanding the critical importance of developing sustainable research entities, CIT also recognises the contribution of individual scholarly pursuit of research.

IMPACT

Government and research funding agencies expect a return on research spend for the Irish economy. This return comes in many forms, including the provision of highly skilled (Masters and PhD) human capital to work in the knowledge economy. In addition to the traditional research outputs, CIT focuses on the generation and application of knowledge for the benefit of enterprise and the wider community locally, nationally and globally. Knowledge generated by CIT's research and innovation system is transferred through enterprises and organisations hiring CIT's graduates and post graduates, collaborative and contract research, licensing and consultancy. In order to stimulate economic, social and cultural development, CIT has a number of supports and policies in place to facilitate engagement of the research community with enterprise and the community. CIT has set targets to increase the research income from industry. In addition, through partnerships with UCC it is implementing best practice in technology transfer and research commercialisation. CIT expects to spin out four companies over the lifetime of this strategy.

THE STUDENT EXPERIENCE

CIT's mission is "To provide student-centred, career-focused education and research for the personal, professional and intellectual development of the student and for the benefit of the broader society in the region and beyond". Our postgraduate research students will be supported in performing research of the highest calibre, working within excellent research environments and collaborating with excellent partners. They will be provided with excellent career advice and significant opportunities to prepare for a career in either academia or industry, depending on their personal goals. Attracting excellent students is important for the success of our research.

INTERNATIONALISATION OF RESEARCH AND INNOVATION

CIT's Research and Innovation activities will be competitive internationally while serving the needs of its region. We will build on our strong track record of collaboration in a broad range of Education, Research, Knowledge Transfer, Enterprise, Shared Services, and Mission-based clusters. We will strengthen our partnerships with established EU collaborators and build new partnerships with leading EU centres of research and innovation. Recognising that research and innovation is international in scope, CIT will target non-exchequer funding from Horizon 2020 and via new routes in association with our partners in India, Brazil, China, the USA, and Russia. We will participate in initiatives which support mobility of researchers and postgraduate students, including Marie Skłodowska-Curie and Erasmus+ actions. CIT will partner with international institutions of similar vision and with other Irish higher education institutions where there are complementarities and synergies that can lead to enhanced strengths and efficiencies. This approach recognises Ireland's scale and the limited resources available to the Irish higher education sector. Strong and diverse alliances with international universities of similar vision will play an important role in meeting the Irish higher education sector's objectives as regional clusters.

IMPLEMENTATION

CIT's vision for research and innovation will be supported by:

- Focusing resources on the strengthening of the TRAs
- Implementing a comprehensive Researcher Career Framework
- Ensuring impact and commercialisation of research through, patents, licenses, and spin-outs
- Promoting multi- and inter-disciplinary research
- Enhancing the linkages between the pillars of research, teaching/learning and innovation
- Providing an excellent educational and research environment for researchers and postgraduates
- Partnering with national and international collaborators to strengthen impact, from research through to commercialisation
- Increasing the proportion of funding from non-Exchequer sources, particularly EU Horizon 2020 and industry
- Increasing the level of research and innovation activity directly with industry
- Strengthening the research supports provided centrally

RI2016 includes the following specific targets²:

- Increase the annual expenditure on research and innovation to €20m by end 2016
- Increase the number of postgraduate research students from 158 to 310 by end 2016
- Increase the number of staff with doctorates to 80% in the Information and Communication Technology (ICT), Photonics, and Lifesciences and Wellbeing TRAs
- Increase the peer-reviewed publications output to 160 per annum by end 2016
- Implement structured PhD programmes and researcher training across the Institute by 2015
- Enhance the level of international collaboration with key new target markets - India, Brazil, China, USA, and Russia – and develop a number of long term partnerships with leading international organisations
- Increase projects involving enterprise partnerships to 25% of the total (by income)
- Annual Commercialisation Targets; IDF's 20; Licences, etc., 5; Patents 5; Spin Outs 1

²As identified in the Institutional Compact submission to the HEA, 2013

OUR 7 KEY GOALS

1. Enhance our Response to the Changing External Landscape
2. Conduct Excellent Research and Innovation with Impact
3. Support Excellent Researchers
4. Achieve Excellence in Student Research
5. Implement Best Practice in Knowledge Transfer and Commercialisation of Research
6. Ensure CIT's Research and Innovation is a Catalyst for Innovation and Job Creation in the Region
7. Achieving Excellence in External and International Partnerships



01

ENHANCE OUR RESPONSE TO THE CHANGING EXTERNAL LANDSCAPE

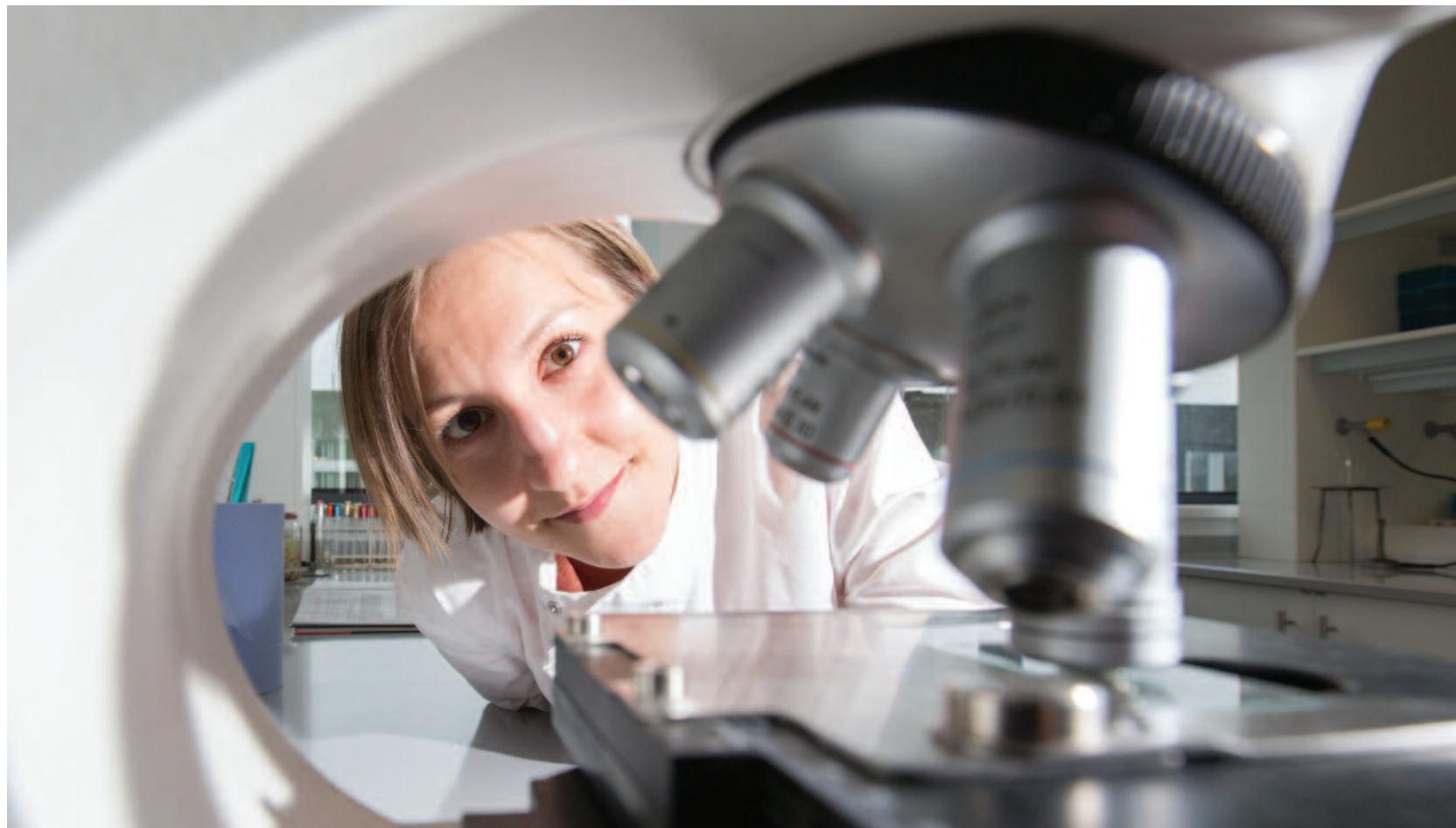
The success of research and innovation in CIT depends on continued responsiveness to the new opportunities and challenges afforded by the changing external landscape. This includes changes to the higher education landscape, the Institute's application for Technological University designation and regional clustering, and a requirement to increase research income.

Objectives

- Ensure research aligns with national policies on research and innovation
- Strongly support the Government's Action Plan for Jobs by assisting the development of RD&I in companies, increasing the level of collaboration with industry and by commercialising the outputs of our research
- Enhance the Institute's ability to win non-exchequer funding
- Strengthen the research and innovation supports provided centrally
- Raise the profile of the research and innovation capacity of the Institute and disseminate the results of our research to all stakeholder groups

Plan

- Ensure all research and innovation activities align with the requirements and opportunities of national policies, particularly the *National Research Prioritisation Exercise* and associated individual action plans for the 14 priority areas
- Provide the appropriate focus to enable the Institute to reach the research and innovation targets set down in the *National Strategy – Towards a Future for Higher Education (2012)* as they relate to designation as a Technological University
- Ensure CIT's IP policy and commercialisation is aligned to the 2012 National IP Protocol, *Putting Public Research to Work for Ireland*
- Enhance the ability of CIT's Research Centres and Groups to win non-exchequer funding through the provision of timely funding supports, a comprehensive project management service, and researcher training that focuses on non-exchequer funding opportunities
- Perform a gap analysis of the research and innovation supports currently provided by the Institute and strengthen these accordingly
- Increase the capacity of enterprises to perform Research Development & Innovation (RD&I) through various initiatives including placements of both research students and contract/academic researchers in companies, placements of company employees in CIT Research Centres, the use of innovation vouchers and innovation partnerships, and through partnering in research projects
- Disseminate the results of our research both internally and to external stakeholder groups, not only through traditional channels of peer reviewed publications, but also to the general public and industry, especially in the region we serve
- Strengthen the capacity of the CIT Research Office to maximise the supports for the delivery of the Institute's objectives



02 CONDUCT EXCELLENT RESEARCH AND INNOVATION WITH IMPACT

Excellence in research and innovation, which has impact both within the Institute and beyond, is the cornerstone of our research and innovation strategy.

Objectives

- Maintain our internal research prioritisation processes
- Strengthen the TRAs, remaining cognizant of the need to support the mature TRAs in ICT, Photonics and Lifesciences and Wellbeing
- Ensure research and innovation activities result in tangible outputs that have measurable impact
- Strengthen the connection between research and undergraduate teaching and learning

Plan

- Prioritise TRAs focus on applications to strategic funding programmes and ensure that research and innovation priorities are reflected in resource allocation
- Implement a formal process for the establishment of designated research entities as Centres or Research Groups
- Formalise the reporting structure within designated Research and Innovation Centres and Groups
- Establish formal performance review mechanisms for all designated research and innovation entities
- Support the development of at least one designated research and innovation group in each of the TRAs of Exercise and Health, Entrepreneurship, Competitiveness and Innovation, and Creative and Performing Arts
- Ensure that the outputs from research are linked to tangible benefits including the career development of research students, the strengthening of the research and innovation entity, the teaching and learning within the undergraduate cohort in the Institute, the support to industry and external collaborators, the generation and commercialisation of IP, the potential for spin-outs and, more generally, the reputation of the Institute
- Assess and publish research and innovation outputs and impacts annually
- Increase the involvement of research entities in undergraduate projects, taking advantage of the significantly increased research and innovation infrastructure in CIT (notably the NIMBUS and CREATE buildings); inherent in this approach will be the need to involve academic staff who are not currently research active and academic staff who have an interest in becoming research active
- Create an environment in which research and innovation entities work with departments to develop/supplement undergraduate modules that contain specific material based on ongoing research activity
- Create researchers of the future from within the CIT undergraduate cohort through a three-stage process of raising awareness in year 1 and 2 integrating research skills in projects in year 3 and where possible, completing some or all of their projects in year 4 in a designated research or related entity



03 SUPPORT EXCELLENT RESEARCHERS

People are at the heart of all research and innovation activity and the CIT research and innovation culture supports the appropriate career development of our most important asset, starting with the early-stage PhD researcher and leading through to Senior Research Fellows and academic staff.

Objectives

- Examine and implement initiatives whereby more academic staff are enabled to participate in research and innovation activities
- Increase the number of existing academic staff with Level 9/10 qualifications
- Increase the number of existing academic staff who are supervising PhD students
- Provide support and training for existing staff to become and remain research active
- Establish a Researcher Career Framework
- Promote multidisciplinary research
- Recruit excellent research active staff, both academic and contract

Plan

- Establish a research environment in which academic staff are supported to redirect time to research and innovation activities whilst recognising contractual obligations and the teaching and learning needs of their host department
- Provide supports to allow staff to upskill to Level 10 qualifications, particularly in the TRAs in the first instance, through initiatives such as reduced teaching hours, fee waivers, small-scale resource allocation, qualitative training workshops, etc.

- Increase the number of staff who are research active; provide competitive seed funding and personalised mentoring, and integration with existing research and innovation entities whenever possible
- Provide comprehensive research training for less experienced researchers
- Provide supervisor training for all researchers, contract or academic, engaged in the supervision of postgraduate research students
- Establish a Researcher Career Framework for both contract and academic staff
- Provide clear pathways for progression based upon performance evaluation and taking cognizance of the large percentage of contract researchers who take up employment in industry
- Continue to a successful conclusion our participation in the EU Commission initiative to implement the principles of the *European Charter for Researchers* and the *Code of Conduct for the Recruitment of Researchers* and ultimately to be awarded the *HR Excellence in Research* mark
- Promote internal multidisciplinary research by, for example, regular multidisciplinary workshops, joint project submissions, joint supervision, joint publications, and through physically co-locating researchers from different disciplines
- Develop policies that ensure the recruitment of academic staff takes due account of their host department's research and teaching strategies, balanced with the needs of the research and innovation entity in which they conduct their research



04

ACHIEVE EXCELLENCE IN STUDENT RESEARCH

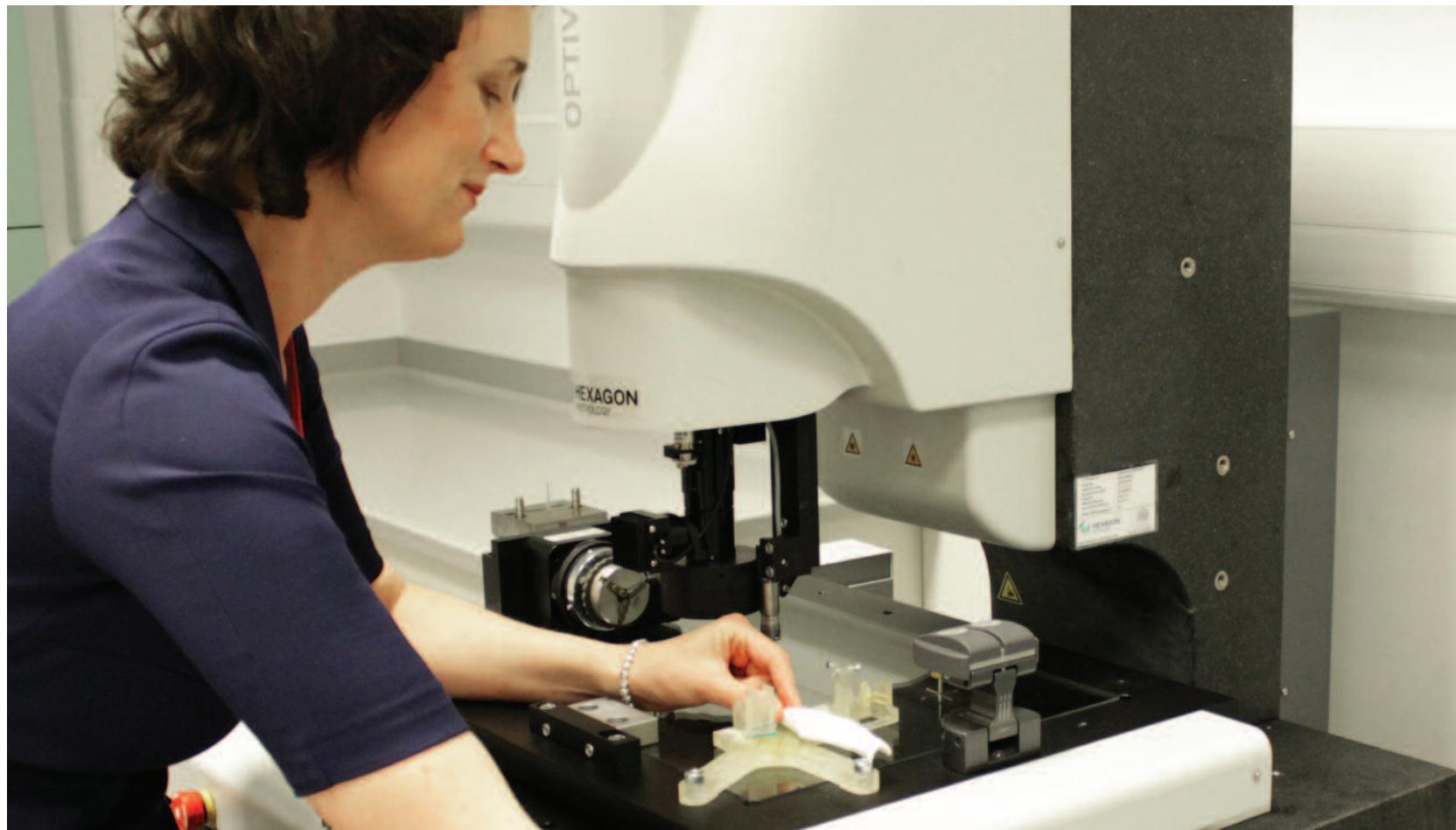
CIT will ensure our research students are supported in performing research of the highest calibre, working within the best research environments and collaborating with the best partners, whilst also being provided with the best career advice. Attracting excellent students is important for the success of our research efforts and significant opportunities exist with international students.

Objectives

- Establish structured PhDs for all research postgraduate students with excellent training and career advice and a first-rate research environment
- Increase the number of PhD students in line with the requirements of TU designation
- Strengthen the connection between research and undergraduate teaching and learning
- Maintain the RISAM postgraduate scholarship scheme at least at 2013 levels and establish a review mechanism to ensure continued alignment with Institute goals
- Attract exceptional international research students
- Encourage and facilitate mobility of students

Plan

- Enrol all research students on Structured PhD programmes that provide excellent training in generic skills and subject specific modules, opportunities for placement in industry, personal development plans, mentoring, and preparation for jobs in industry upon completion of the research work
- By developing designated research and innovation entities, and encouraging multidisciplinary activities, the Institute will ensure that the physical and intellectual research environment is first-rate for all postgraduate students
- Enrolment of, and support for, PhD students will address the criteria set down for TU designation
- Offer possibilities for research students to interact directly with undergraduates in both classroom and laboratory situations and to act as role models, thereby strengthening the connection between research and faculties/schools/departments
- Continue with the RISAM PhD Scholarship scheme at the level of at least 2013 to ensure a strong base of excellent research postgraduates
- Promote CIT research internationally, in order to attract the strongest research students and to provide a rich multicultural research environment
- Provide opportunities for students to travel to conferences and also to work in external/international research laboratories in industry or academia as an integral part of the student learning experience



05 IMPLEMENT BEST PRACTICE IN KNOWLEDGE TRANSFER AND COMMERCIALISATION OF RESEARCH

CIT will ensure that CIT's researchers and industry-facing Centres maximise their impact through innovation and technology transfer. The CIT Industry Liaison Office (ILO) is responsible for the provision of commercialisation support services. This Office supports and manages the identification, capture, protection and exploitation of Intellectual Property (IP) through licensing to existing companies and through the formation of start-up companies based on technology developed by CIT.

Objectives

- Enhance commercialisation support and opportunities for researchers
- Build Life Sciences Technology Transfer capacity
- Ensure effective systems are in place internally and externally to inform and facilitate company engagement with the ILO and the CIT Research community
- Guarantee responsive and flexible administrative supports for researchers and industry while meeting objectives in terms of confidentiality, commercial imperatives and IP protection
- Ensure the relevant policies (IP, Campus Companies, Conflict of Interest, and External Work and Consultancy) are fit for purpose and communicated effectively to all staff

Plan

- Provide expert advice to researchers on the best way to protect and exploit IP generated through research
- Enhance the Technology Transfer (TT) profile on the CIT website as a marketing tool to facilitate access to CIT research by enterprise
- Provide pathways for CIT researchers to generate spin-out companies based primarily on IP generated within the Institute, thereby helping to generate new jobs
- Continuously provide staff training on IP and commercialisation of research
- Enhance the entrepreneurship training for postgraduate students and researchers with a view to more effective interactions with industry and increased opportunities to establish start up companies of their own
- Leverage the Technology Transfer Consortium with UCC and Teagasc to maximise innovation outputs and knowledge transfer opportunities, implement best practice, and build Technology Transfer capacity for life sciences in particular
- Continuous monitoring of CIT's IP and TT framework to make sure it is fit for purpose and always in line with national protocols and national innovation strategy
- Participate in national knowledge transfer fora and networks



06

ENSURE CIT'S RESEARCH AND INNOVATION IS A CATALYST FOR INNOVATION AND JOB CREATION IN THE REGION

CIT has an important role to play in the economic development of the region and the development of Ireland's knowledge economy. CIT's Industry Liaison Office has a primary role in promoting and enabling CIT engagement with industry through collaborative research and innovation support.

Objectives

- Increase the number of research projects which involve industry partners
- Increase the percentage of research income generated from non-exchequer sources and industry
- Enhance CIT's capacity to deliver projects with industry with extensive participation of CIT staff in innovation and knowledge exchange activity
- Expand CIT's entrepreneurship training for postgraduate students and researchers
- Instil a strong culture of entrepreneurship and innovation throughout CIT
- Ensure coherence between all elements of innovation across the Institute, including entrepreneurship, commercialisation, knowledge transfer, education, and consultancy

Plan

- Position CIT as a research and innovation partner of choice for enterprise, providing best in class innovation supports and knowledge exchange through consultancy, collaborative research, contract research and technology transfer.
- Increase the visibility of CIT's capacity to provide solution-oriented research and innovation for industry through appropriate marketing and events on campus
- Facilitate continued interaction between the Rubicon Incubation Centre and CIT researchers, with a particular emphasis on interactions with designated research entities
- Implement reward and recognition incentives to encourage the widest possible participation in innovation, knowledge exchange, and enterprise support
- Ensure the Technology Gateways and industry facing research centres are facilitated to create capacity to meet firms' expanding demands for innovation supports and knowledge transfer
- Ensure CIT's researchers are fully supported in identifying funding and establishing partnerships with entrepreneurs, firms and other organisations



07 ACHIEVING EXCELLENCE IN EXTERNAL AND INTERNATIONAL PARTNERSHIPS

Research and Innovation is increasingly global and multidisciplinary in scope and building and strengthening our current partnerships and establishing strategically advantageous new partnerships is important to success in the international arena.

Objectives

- Strengthen existing partnerships with EU collaborators to increase our success rate in funding opportunities, particularly in the EU Horizon 2020 programme
- Establish targets for participation in H2020, including the financial drawdown, and provide appropriate internal supports to realise these
- Develop strategic partnerships in targeted new international markets – India, Brazil, China, USA, and Russia
- Develop a number of funded research programmes with partners in India, Brazil, China, USA, and Russia
- Enhance the CIT international brand in research and innovation

Plan

- Capitalise on the development of strong international partnerships to engage in non-exchequer funded projects
- Focus resources on supporting applications to H2020 calls across all TRAs, including central supports located in the Research Office
- Focus on a small number of institutions in India, Brazil, China, US and Russia and develop strong partnerships with them in areas aligned to CIT's TRAs
- Increase the number of publications involving international collaborators, both in high-impact journals and at leading conferences
- Enhance the international status of CIT in research and innovation by partnering with international collaborators who are globally respected
- Strategically position CIT to anticipate emerging funding opportunities globally



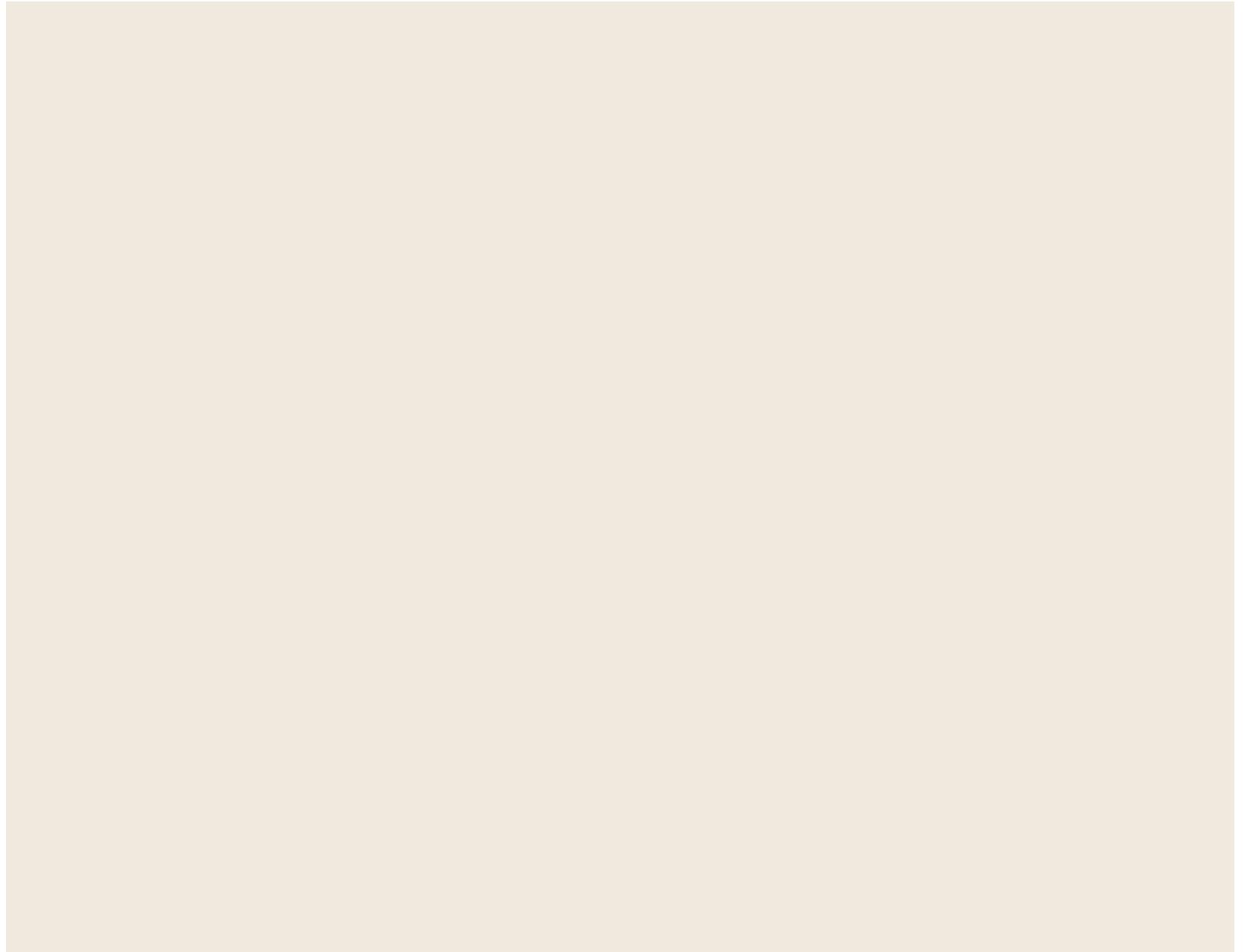
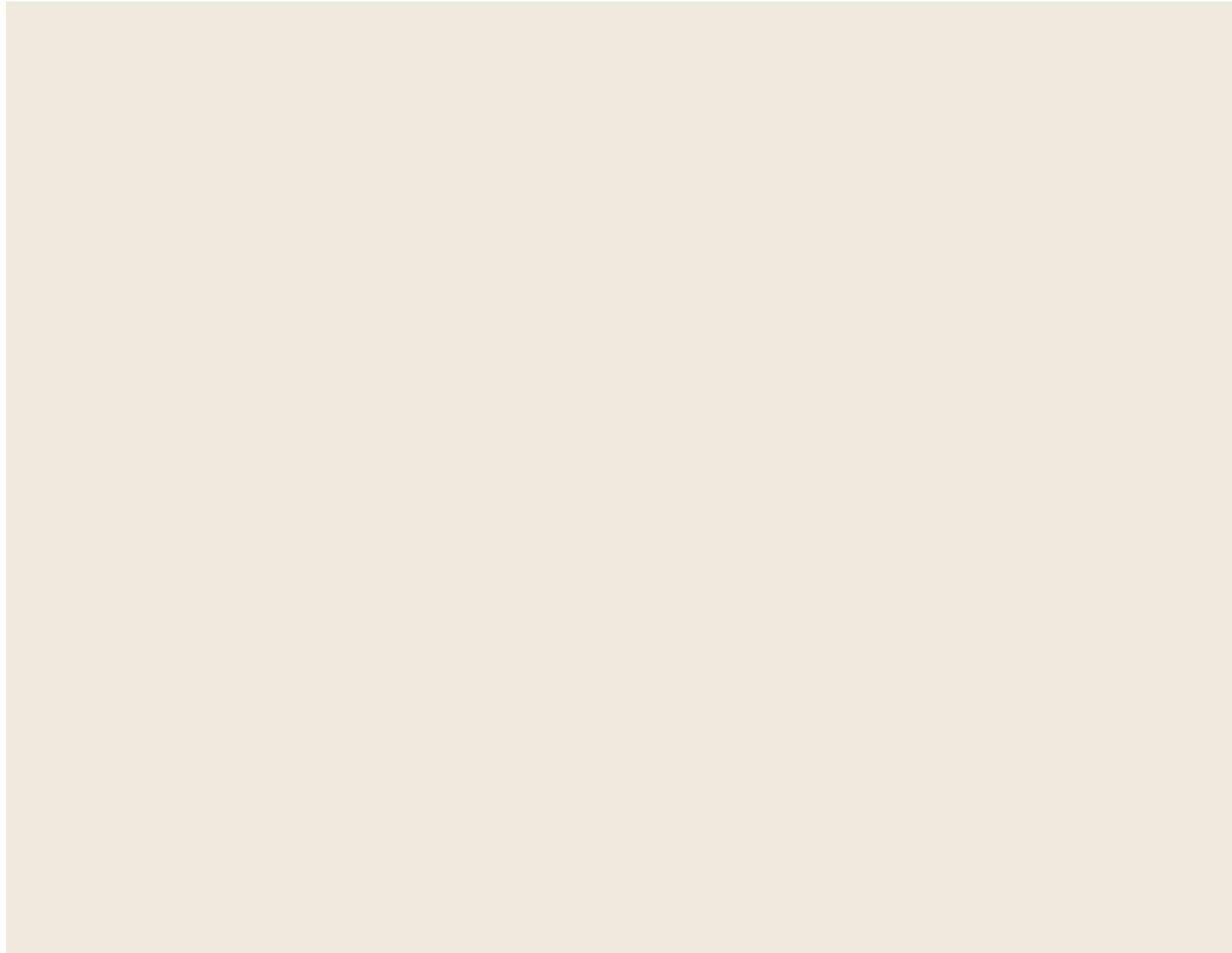
CLOSING REMARKS

"Strategic supports for our researchers enable us to create a collaborative environment in which new ways of thinking and innovative ideas are encouraged and nurtured. This Research and Innovation Strategy is not an endpoint in itself, rather it supports the ongoing process of transformation within CIT by setting objective targets that reflect our current strengths and future aspirations. Building on the success of the previous strategy it provides an updated framework for discussion and planning which will ensure the impact and excellence of the research community is strengthened in areas where we are traditionally strong and in those where we determine to be so."

Dr Niall Smith
Head of Research

"CIT has greatly advanced in the research space over the last number of years. However, to stand still is to fall behind, and our goal must be to drive ahead and continue to grow our research activity; positioning it as a means to stimulate undergraduate and postgraduate learning, as well as a means of working with industry, other universities and external communities. We have taken recent steps towards formalising the process of designating research units within CIT, and this is one way in which we can enable critical mass and collaborative practice. We also look forward to fully implementing our Researcher Career Framework and our Research Management System in the days ahead; ultimately our goal is to provide a supportive environment where our researchers, and their research activities, can thrive and grow."

Orla Flynn
Vice President for External Affairs



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