



A fresh vision for
research and
innovation at DCU





Developing research and innovation at DCU



DCU aims to transform lives and societies through education, research and innovation.

With the activities outlined in this document, we will fulfill the University's vision that, by 2017, DCU will be recognised internationally as a research-intensive university of enterprise with a focus on translating knowledge into benefits for society and for the economy.

To do this, we will ensure that we

- continue to pursue academic excellence
- support new discoveries by drawing in more research funding from diverse sources
- realign our major research activities to help solve current and key challenges facing society
- increase our impact on society through enhanced knowledge transfer with commercial, social and cultural enterprises

- provide more tailored support for staff and students to engage in research and to translate knowledge into societal and economic benefits
- make it easier for business and other enterprises to access our facilities and expertise
- execute a detailed implementation plan so that the research and innovation strategy delivers the intended outcomes

Achieving our goals for research and innovation at DCU will have a profound and positive impact on our students, staff, and external partners. Together we will ensure that DCU continues to contribute to the greater good of our wider society.

Professor Alan Harvey

*Vice-President for Research and Innovation
Dublin City University*

Research and innovation at DCU

- excellence and impact

DCU's vision is to be a research-intensive university of enterprise with a focus on translating knowledge into benefits for society and for the economy.

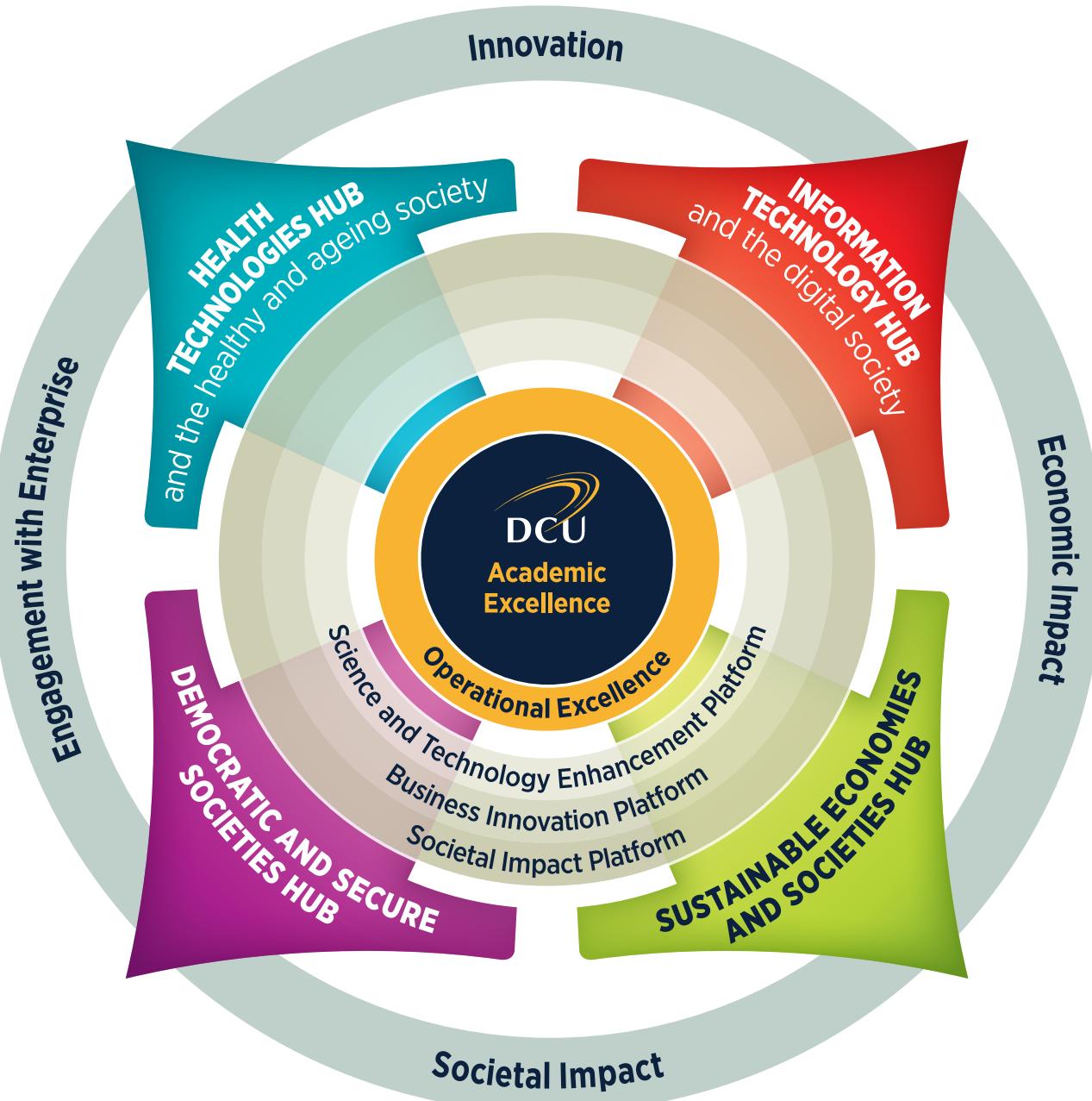
To strengthen these activities, we are organising our resources in ways that enable researchers to benefit from collaborations across disciplines and to interact more readily with partners in commercial, social and cultural enterprises.

Based on the core of academic excellence at DCU, our researchers will continue to create new knowledge. But they will also be translating their discoveries and inventions into innovations that can benefit people's lives.

Achieving our vision

We are creating an environment that promotes research, scholarship and external engagement. This will help us to maintain and develop our areas of research excellence, and it will encourage researchers and partners from different disciplines to work and advance together.

We are arranging much of our research activities to address major areas of societal and economic needs - health, information technology, sustainability and resilience. These will be addressed through our new research and enterprise hubs, as described below. The resources and expertise in the hubs will be reinforced by additional expertise in three cross-cutting platforms that provide support in key areas of science and technology, business processes and social sciences. The overall matrix for research and innovation at DCU is show in the diagram opposite.



DCU's research and innovation matrix is shown above. Building on the core of academic excellence, four research and enterprise hubs will develop research that will have impact on important priority areas for the economy and society. These activities will be reinforced by additional expertise in the three cross-cutting platforms.

Working together to maximise the impact of research at DCU

To ensure that DCU research increases its real-world impact, we are focusing on priority areas where DCU has recognised strengths and where society is facing significant challenges.

These areas form the four research and enterprise hubs

- health technologies, and the healthy and ageing society
- information technology and the digital society
- sustainable economies and societies
- democratic and secure societies

The research and enterprise hubs

The four research and enterprise hubswill enable us to marshall our own resources and to reach out more effectively to partners in enterprise, government and the wider community.

In each hub, researchers from across our four faculties (Engineering and Computing, Humanities and Social Sciences, Science and Health, and the DCU Business School) can work together to tackle problems in new ways and deliver innovations of benefit to society.

"A key goal for DCU is to align our research priorities with societal and technological challenges. Finding solutions to those challenges increasingly involves working at the interfaces between diverse disciplines and between science and society. This is what our hubs are designed to do."

Dr Christine Loscher, Academic Director, Health Technologies and the Healthy and Ageing Society Hub

The researchers will be supported by integrated administrative, communications and business development teams to make the most of resources and to engage effectively with external enterprises.

Each hub will be guided by an academic director who will build on existing strengths and develop new activities for future growth.

"Ireland's national policy recognizes the crucial role of research and development in sustaining its diverse industry base of both multinationals and SMEs. At DCU, we are committed to assisting enterprises of all types through access to our expertise and facilities"

Dr Noel O'Connor, Academic Director, Information Technology and Digital Society Hub

The hub directors will also guide the formation of major partnerships and will ensure that DCU research and innovation has significant impact on the selected societal challenges.

"DCUs new research and enterprise hubs are designed to enhance our capability to deliver research outputs that match real industry needs"

Dr Stephen Daniels, Academic Director, Sustainable Economies and Societies Hub

The outward-facing activities of the four hubs will be reinforced by the resources from the three cross-cutting platforms.



The cross-cutting platforms

The Science and Technology Enhancement Platform (STEP) will link key areas of science and technology and allow us to make best use of our existing resources. It will enable us to develop infrastructure that will be critically important for future research in core science and engineering disciplines and in addressing several key societal challenges.

"STEP will implement an integrated strategy to facilitate access to research facilities and specialist expertise by DCU-based researchers and external partners. Linking closely with the research hubs, it will ensure that the use and maintenance of equipment suites is operated on a professional basis, and thereby improve our research competitiveness, while simultaneously opening new routes to income generation through, for example, contract research with industry."

Professor Dermot Diamond, STEP Director

The Societal Impact Platform will help to incorporate societal perspectives into our research and to increase public engagement.

"To make us better able to address key challenges, our matrix of research and enterprise hubs and cross-cutting platforms will complement DCU's existing research expertise. By working together, we will ultimately have a greater impact on society."

Dr Padraig Murphy, Director of the Societal Impact Platform

The Business Innovation Platform will provide expertise in particular areas of business processes as required by enterprise partners and will support the hubs in bridging the gap between research and innovation.

"The Business Innovation platform will provide a support mechanism and an interface that will enable the workflow process between the DCU research hubs, researchers and enterprise, regardless of size, to accelerate innovation and ultimately economic growth."

Dr Theo Lynn, Director, Business Innovation Platform

To make sure the research and innovation resources in the hubs and the platforms are accessible, we will continue to lower the barriers for enterprise to engage with DCU's expertise, research and facilities, as shown, for example, by our Licence Express Scheme.

"We are streamlining our knowledge transfer policies and business practices, and by working with the hubs through focused business development teams, we will help industry connect even more effectively with DCU and accelerate the rate at which DCU innovations are transferred to industry and society. "

Richard Stokes, Director of Innovation at DCU

Research and innovation strategy map



The strategy map shows how the different elements of the plans for developing research and innovation at DCU reinforce each other. Building on academic and operational excellence, key processes will allow staff to interact productively with students and research partners, enhancing DCU's growth and fulfilling its vision.

From plans to actions

As shown on the summary strategy map, our research and innovation development plan links various interconnected processes and activities.

To ensure that these processes and activities will deliver DCU's vision, our faculties, research groups and support teams have agreed challenging targets that will be achieved by 2017. Specific initiatives will address each target and will be monitored regularly and adjusted as necessary.

"Academics and researchers at DCU deserve the best possible assistance to enable them to conduct their research and innovation activities. The Research Support team has been reorganized to be able to provide relevant advice, mentoring and professional assistance in a more direct and meaningful way, and I would like to encourage staff to engage with us."

Dr Ana Terres, Director of Research Support

Signs of success

As a research-intensive university, DCU expects that by 2017 at least 75 per cent of academic staff in each faculty will be active in research. This will result in more internationally recognised publications in journals and books and the supervision of more research students.

By 2017, we anticipate that at least 60 per cent of research outputs in each discipline at DCU will appear in the top quartile of publications.

To make sure that we have the resources needed for these activities, we intend to double our overall research funding from external sources during that period - including awards from the European Horizon 2020 research and innovation programme and from contract and collaborative research with enterprises.

The improvements in our research support system will make it easier for researchers at DCU to identify and apply for such funding. We will create further opportunities for staff and students in innovation, entrepreneurship and enterprise engagement.

We will build on the successes of our recently launched initiatives such as the UStart student accelerator programme and the DCU Innovation Campus. By 2017, we will have doubled DCU's engagement with commercial and social enterprises and sustained our start-up and spin-out company activity.

A strategy for sustained benefits

Academic and research staff at DCU will benefit from increased financial and operational support and from greater opportunities to interact with researchers from other disciplines and to work with enterprise partners.

DCU research students will benefit from a university that is engaged with 'real-world' challenges and that prepares them for success throughout their lives. Students will interact and learn from active researchers and be able to link into a larger network of external academic and enterprise partners.

Research sponsors – both public and private – will see research and innovation that strengthens Ireland's performance in priority areas and addresses some of society's most pressing needs.

Enterprise partners will be better able to work with DCU researchers on shared projects and goals, and will benefit from the supportive environment at DCU and from the rich opportunities for innovations that can bring economic or societal benefits.

By 2017

By implementing our plans for research and innovation, we will have contributed to achieving DCU's vision for its future.

We will have:

- strengthened our activities by doubling funding for research and scholarship (compared to pre-2012 levels)
- increased our international reputation for academic excellence through high-impact publications
- achieved global recognition as a research-intensive university
- developed an entrepreneurial culture within our community
- delivered greater impact from our research to society
- boosted our engagement with commercial, social and cultural enterprises
- strengthened our position as the University of Enterprise

For more information about research and innovation at DCU,
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