

A fresh vision for **research** and **innovation** at DCU



A fresh vision for 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 fulfil 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 strategy map

VISION

By 2017, DCU will be recognised internationally as a research-intensive, globally-engaged University of Enterprise that is distinguished both by the quality and impact of its graduates and its focus on the translation of knowledge into societal and economic benefit

FINANCIAL PERSPECTIVE

Providing the best possible research environment by:

- Growing research income from national and international sources, public and private
- Generating income from knowledge exchange activities

STAKEHOLDER PERSPECTIVES

For students – immersion in the culture of a University of Enterprise; enhanced employability

For research sponsors – engagement with a university that addresses society's pressing needs

For enterprise partners – access to opportunities for innovations that will bring economic

and societal benefits

KEY PROCESSES

Enhance research activities where DCU can impact on society's grand challenges and economic needs

Establish leadership positions in selected research areas within health, digital, sustainability and resilience

Be more attractive to enterprise and civic society

Provide ready access to our expertise, facilities and technologies

Create productive two-way knowledge transfer partnerships with social, cultural and commercial enterprises

GROWING CAPACITY AND CAPABILITIES WITHIN DCU

Academic Excellence

Research-intensive faculties with vibrant graduate programmes

Ability to translate research into innovations for societal and/or economic benefits

Operational Excellence

Systems for supporting both fundamental and applied research

Systems for supporting innovation that are suitable for students, staff and external partners

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 actions will allow staff to interact productively with students and research partners, enhancing DCU's growth and fulfilling its vision.

Our vision for research and innovation at DCU

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 make that vision a reality, 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.

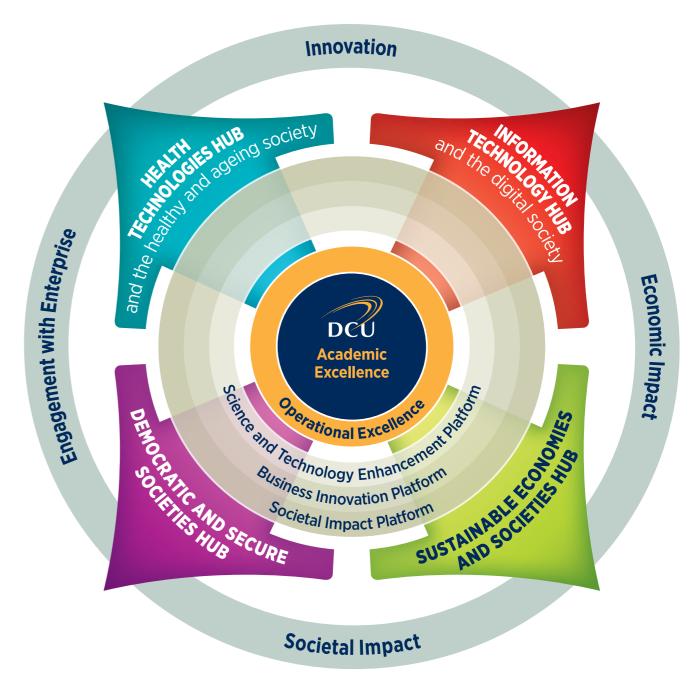
Achieving our vision

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.

Under our strategy, the new 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



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.

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

These areas are

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

We have established four new research and enterprise hubs in these areas to marshall our own resources and to reach out 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.

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

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.



A key goal for DCU is to align our research priorities with societal and technological challenges. Finding solutions to such challenges increasingly involves working at the interfaces between diverse disciplines and between science and society. To enable this, our new research and enterprise hubs will complement DCU's existing research excellence in specific domains by mobilising multi-disciplinary research teams to address these challenges and ultimately have a greater impact on society.



Ireland has succeeded in growing a vibrant and diverse industry base of both multinationals and SMEs. As recognised in national policy, research and development has a crucial role to play in ensuring sustainability. DCU's new research and enterprise hubs will enhance DCU's capability to deliver research outputs that address real industry needs. And this, in turn, will help Irish businesses to grow and to remain competitive in global markets.

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

The outward-facing activities of the four hubs will be reinforced by the resources from the STEP and from two additional cross-cutting platforms. The Societal Impact Platform will help to incorporate societal perspectives into our research and to increase public engagement. 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.

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.

By reorganising our internal support structures and by focusing more efforts on mentoring and engagement with researchers and academics, we will be better able to help DCU academics find external support for their work.

Ana Terres, Director of Research Support

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.

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



Email: research@dcu.ie

Invent

Tel: +353-1-700 7777 Email: info@invent.dcu.ie