
Innovation, entrepreneurship and industry engagement

**Dr Diarmuid O'Brien, Chief
Innovation and Enterprise Officer**

Trinity College Dublin is a university with innovation at its centre. Our academics have always understood the value of not just doing great research but translating that research to achieve impact that improves lives.

RIGHT – Aoibheann O'Brien and Iseult Ward, co-founders of social enterprise Foodcloud, participants in LaunchBox, Tangent's Student Accelerator programme in 2013. (Photo credit: Patrick Bolger)

Over the decades, Trinity has supported innovations that led to the nicotine patch and to the use of folic acid to support healthier pregnancies. We have helped create globally leading businesses – think Iona Technologies which was the fifth largest IPO in the history of the NASDAQ in 1997.

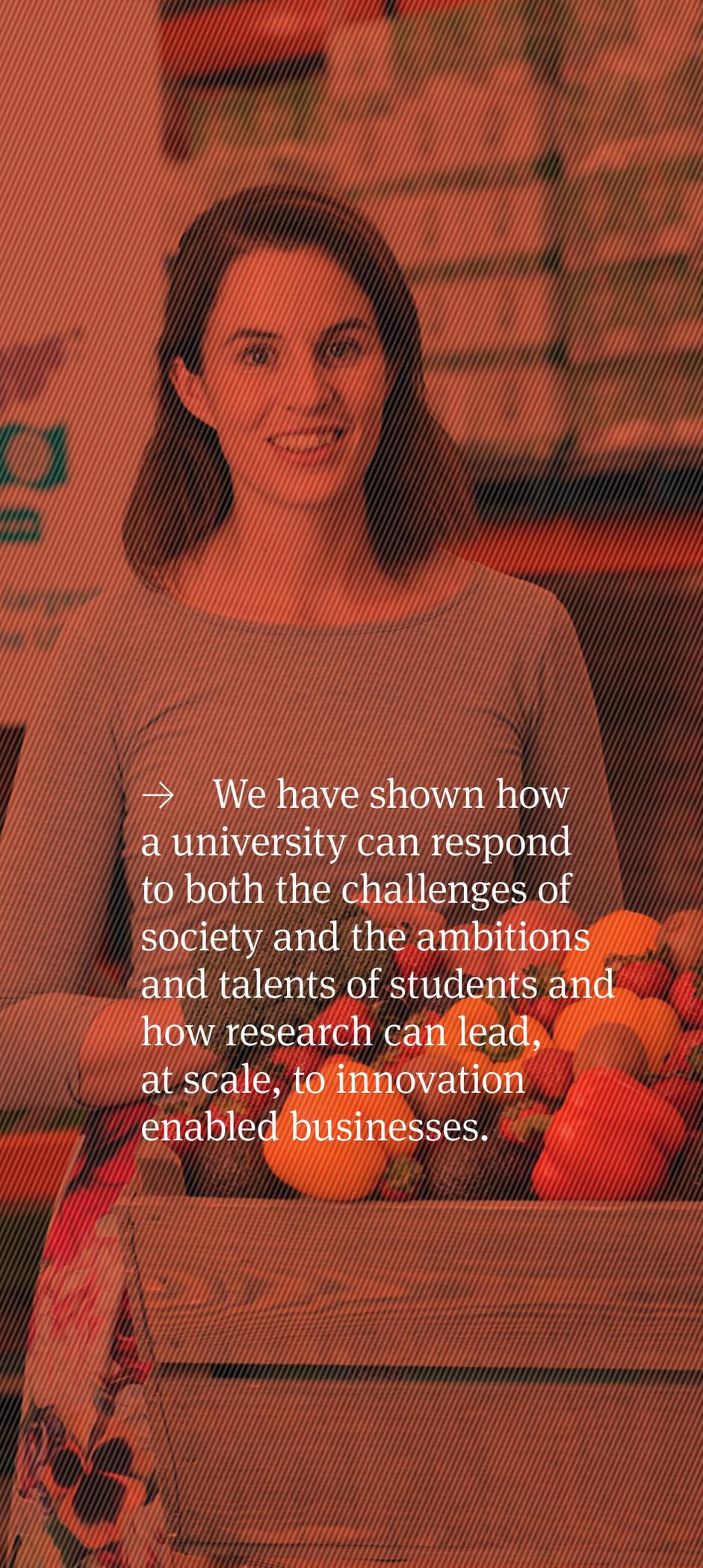
However, in the last decade Trinity has expanded its ambitions and demonstrated that we can deliver even more impact. We have shown how a university can respond to both the challenges of society and the ambitions and talents of students and how research can lead, at scale, to innovation enabled businesses.

This has not happened by accident. At the start of the decade, Trinity's first innovation strategy was developed, launching initiatives which have helped make Trinity a European leader in innovation and entrepreneurship.

Student entrepreneurship

Students today are motivated by making an impact and there is no more direct way to achieve this than to establish your own company.

Trinity has responded to this changing landscape by establishing Tangent, Trinity's Ideas workspace, to provide an opportunity for all students to take their innovative and entrepreneurial ideas and turn them into impact. Tangent runs a range of programmes that have transformed how we support innovation.



→ We have shown how a university can respond to both the challenges of society and the ambitions and talents of students and how research can lead, at scale, to innovation enabled businesses.





LaunchPad, established in 2016, is a campus-based entrepreneurship programme designed to support and mentor students, staff and alumni – regardless of experience or discipline. Throughout the year a series of events, including innovation challenges, hackathons and mentoring sessions are held, with the goal of engaging 10% of the student population each year.

The *LaunchBox* accelerator started in 2013. Originally supported by a group of 'Trinity Angels', in recent years the programme has been supported by Bank of Ireland. It offers ten teams equity-free funding, a structured programme of experts and mentors, and the perfect collaborative environment for early-stage startups to progress.

There have been many successes including Artomatix, founded by Eric Risser, (*LaunchBox* 2013) which in late 2019 was sold for over €60 million. Social enterprise Foodcloud (*LaunchBox* 2013) was profiled in *TIME* magazine and has secured partnership with Tesco, where they have redistributed over 15 million kilograms in food that would otherwise have been wasted. Touchtech Payments, founded by Shekinah Adewumi and Niall Hogan, was acquired by Stripe in 2019.

Startups that began in *LaunchBox* have enjoyed great success: collectively they have raised in excess of €74 million since 2013 and created many hundreds of jobs, and importantly, the programme is a transformative experience, allowing entrepreneurial and innovative students to learn by doing.

Tangent also supports education activity and delivers innovation & entrepreneurship training to 700+ students and professional learners annually. Tangent education courses are

innovative in themselves. The team delivered the first blended undergraduate Certificate in Innovation & Entrepreneurship in any university nationally and the first Trinity postgraduate course to be delivered regionally. By delivering courses in 10 counties nationally, Tangent is bringing Trinity expertise to support sustainable employment regionally through entrepreneurship education.

Campus companies and University Bridge Fund

In the last decade, Trinity has transformed how it translates research into new company formation. In 2015, Trinity in partnership with University College Dublin established the University Bridge Fund (UBF), a €60m venture fund exclusively focused on commercialisation of university research.

The European Investment Fund, Enterprise Ireland, Bank of Ireland and AIB invested in UBF and it is ranked fourth globally for scale in collaborative venture funds. Managed by Atlantic Bridge since its formation, the UBF has invested in 22 companies, leveraged >€120 million in investment and established more than 300 jobs.

In 2021 the second university bridge fund was established, and it made its first investment in the most recent Trinity spin-out, Parvalis Ltd. It is anticipated that over the next 10 years the University Bridge Fund will have resulted in investment of more than €300 million in Irish SMEs – all catalysed by our universities.

The UBF has helped Trinity rapidly accelerate its ability to establish venture backed business. In the last decade 45 new campus companies have been launched and Trinity is ranked first in Ireland for generating High Performance Start

LEFT – At the launch of ‘Tangent, Trinity’s Ideas Workspace’ in 2018, were Provost Patrick Prendergast, Co-Founder of Change Donations, Lizzy Hayashida, Co-Founder of SeaPunk, Tommy Torrades, and Trinity’s Chief Innovation & Enterprise Officer, Dr Diarmuid O’Brien.

→ We have been re-imagining Dublin as a global location of choice for innovation investment, a place where our entrepreneurial graduates can establish their businesses and where the world’s leading companies are choosing to locate their research and innovation activities.

Ups from our research – over 15 in the last five years. This is best represented by the incredible achievement of Professor Luke O’Neill who founded Inflazome, which was acquired by Roche for €380 million, the largest ever acquisition of an Irish campus company.

As evidenced by the successes of our students and faculties, it is no surprise to find that our graduates’ entrepreneurial performance has Trinity ranked first in Europe for entrepreneurship. For the past six years, Trinity graduates have founded more venture-backed companies than graduates from any other European university. Between the years 2006 and 2020, Trinity alumni produced 277 entrepreneurs, formed 254 venture-backed companies, and raised capital of approximately US\$ 4.8 billion.

Licensing, patents and industry partnership

Trinity is also delivering huge success in other areas. In the last decade we have generated 600 invention disclosures, leading to 215 patents – a remarkable achievement relative to our research expenditure. The commercialization of our intellectual property through licensing to industry is a validation of the quality of our research and we have completed 188 licenses in the last decade. Half of these licences are to Irish business and this provides a tangible measure of how Trinity research can improve the competitiveness of the Irish companies.

The same positive trend of growth is evident in our industry partnerships. In the last decade our faculty have commenced 880 research collaborations with industry, 613 of these in the last five years. We now sign 130 industry

collaborations each year; at the start of the decade we were doing 40. Collaborators are multisectoral and include globally recognised companies such as AbbVie, AIB, Huawei, Intel, IBM, Johnson & Johnson, and Roche.

Importantly we are also developing multi-faceted relationships with industry. We signed our first industry MOU with Intel Ireland in 2016. Since then Intel’s Employability Award has graduated 230 students, financially supported 60+ Master/PhD with bursaries and driven significant collaborative research resulting in over 50 scientific publications. Trinity is playing its part in supporting Intel as they have invested >€10 billion in Ireland in the last decade.

GCID and the platform for the next decade

The success of the last decade has allowed Trinity to plan even more ambitiously. We have been re-imagining Dublin as a global location of choice for innovation investment, a place where our entrepreneurial graduates can establish their businesses and where the world’s leading companies are choosing to locate their research and innovation activities.

The next evolution for Trinity and innovation has begun with the establishment of Trinity East and the plans for the Grand Canal Innovation District (GCID). An innovation district attracts additional international venture capital investment, creates a critical mass of SMEs at one location; attracts talent and retains entrepreneurial graduates by giving them a place to succeed. GCID can make Dublin a global innovation city, and with Trinity at its physical centre, it can support our ambition to grow our research and innovation activity for the next decade and beyond.