DARE TO DISCOVER

A Vision for Entrepreneurship at TU Dublin



INTRODUCTION

This document serves to shine a light on the extensive and existing entrepreneurship work of TU Dublin, whilst setting out our ambitions for the future of entrepreneurship at the University. It aims to articulate a shared vision for both internal and external audiences and partners as we look towards 2030. Our Entrepreneurship strategy is aligned with TU Dublin's **Strategic Intent 2030** and aims to support delivery of our vision to **Create a Better World, Together,** focusing on our three Pillars:

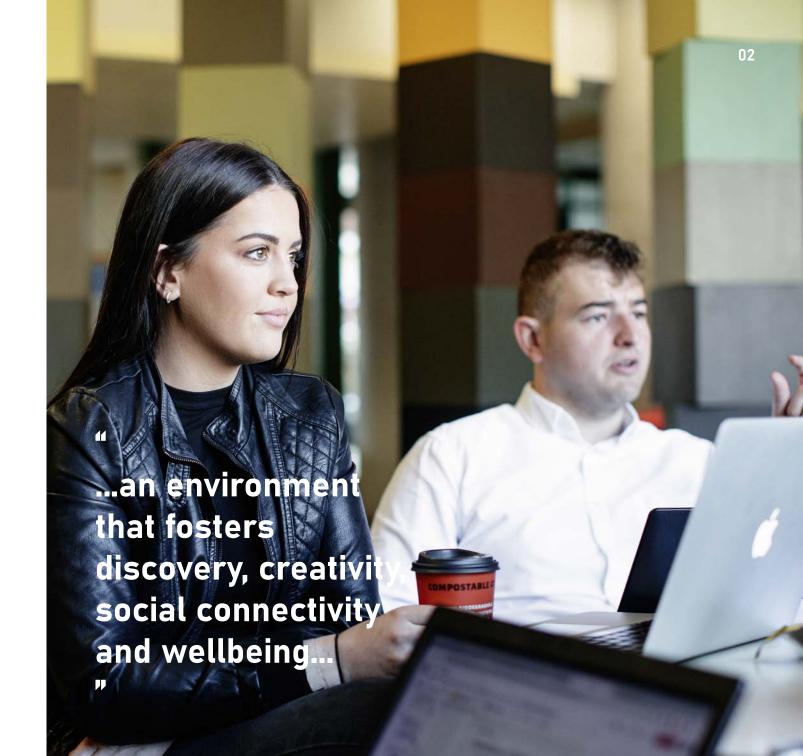
People: fostering individual talents, supporting people to explore their abilities and reach their full potential;

Planet: becoming a powerhouse for sustainability, addressing the big challenges facing the world; **Partnership**: delivering impact through engaging with partners and making things happen.

In an entrepreneurship context, our specific aims include:

- > Delivering a new model of education to ensure that TU Dublin graduates have the attributes and capabilities necessary for tomorrow's world. In this context, entrepreneurship has been identified as core to the 1st design principle (Student-Centred and Student-Engaged for Student Success) of the University Education Model
- > Developing a research community that is internationally recognised and known for the creation of new knowledge and timely & practical solutions that address the SDGs; Entrepreneurial mindsets are essential to delivery of this aim.
- > With a commitment to developing and sharing knowledge openly and creating synergies with partners, TU Dublin will underpin its innovation ecosystem and deepen entrepreneurial collaborations so as to increase the number of new technologies, new products and new businesses created. Entrepreneurship is at the heart of this aim and TU Dublin is committed to growing the portfolio of creative and entrepreneurial endeavours
- > Creating a top-class campus environment that fosters discovery, creativity, social connectivity and wellbeing. This speaks to the University's ambitions to provide vibrant spaces that facilitate and nurture entrepreneurship, creativity and individual potential.

Our Entrepreneurship Strategy is a 'working' strategy which will allow activities to continue to develop and grow and take advantage of the unique position that TU Dublin holds in the space. It will necessarily adjust and align with other relevant strategies and plans as they are brought forward within the University.



DARE TO DISCOVER

A vision for Entrepreneurship at TU Dublin Our ambition is to inspire the next generation of entrepreneurs; to embed entrepreneurship in the curriculum and in our research activity and make it pervasive across the whole University.

TU Dublin will be the place where all budding entrepreneurs, potential entrepreneurs and creators will wish to come, where the entrepreneurial environment; the network; the expertise; and the practical facilities and support are second to none, providing a launchpad and support framework that enables ambitious and talented people to start and grow successful businesses.

Our role must be to advocate for entrepreneurship as a serious career choice and facilitate entrepreneurs on their journey to realising infinite possibilities.

Approved by TU Dublin President's Group 9 December 2020



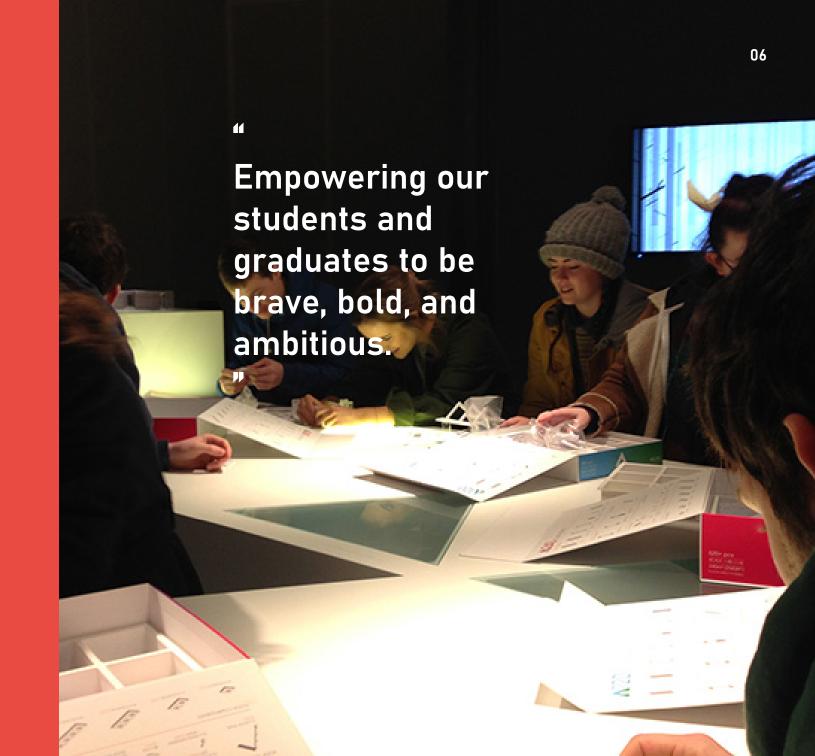
01 INSPIRING MINDS

02 IGNITING INNOVATION

03 EXPLORE & ADVANCE

04 CONNECT & COLLABORATE

INSPIRING MINDS



INSPIRING MINDS

Empowering our students and graduates to be brave, bold, and ambitious

-

At TU Dublin, entrepreneurship is in our DNA and is deeply embedded across all that we do as a University. Our people are encouraged to learn and to grow without the fear of failure. We have cultivated a rich culture where daring to discover, exploring opportunities, and taking calculated risks are celebrated.

Core to our inspiring minds mission is our goal of ensuring that every student at TU Dublin has the opportunity to engage in learning experiences that develop their entrepreneurial mindset and competences. We have already seeded this ambition through the development of curricular and co-curricular activities that provide experiential learning, experimentation, development of critical skills in creative problem solving, design thinking, team building and leadership. The HEA Human Capital Initiative funded GROWTHhub project is building on this platform, and extending development opportunities to alumni and work-based learners.

Across the University students have opportunities to access national and international student enterprise competitions. TU Dublin is the National Lead for the ClimateLaunchpad, the global green ideas competition, and accredited initiatives such as Venture Validate allow students immerse themselves in the entrepreneurship process.

For students of the University who wish to launch their own ventures we deliver:

ivenTUre: The TU Dublin Student Entrepreneur Accelerator Programme. ivenTUre nurtures student ideas, fosters entrepreneurial ambition and helps students develop the know-how, skills and network to turn these ideas into reality.

IMMERSE: The TU Dublin Summer Start Up Experience. Our students IMMERSE in a 3 month summer placement in a TU Dublin located start-up and early-stage enterprises, gaining hands on experience in business start-up and learning from experienced entrepreneurs.

Building upon our success, looking towards 2030:

_

We believe in entrepreneurship for all. We have developed inclusive programmes and initiatives that engage groups that are under-represented including women, migrants, ethnic minorities and people who identify as having disabilities.

With Dare to Discover, through sector leading initiatives, we will continue to cultivate the entrepreneurial and growth mindset of our students and staff, motivating a community of entrepreneurial innovators capable of delivering solutions for cultural, economic, environmental, and societal challenges. Dare to Discover will expand these opportunities to every student, providing innovative and accredited opportunities for students to develop entrepreneurial competences that will serve them their personal and professional lives.

Our faculty are champions of entrepreneurship. We will extend our support for them to develop their own entrepreneurial mindset so that they can, in turn, inspire the minds of the students they engage with as well as develop innovative pedagogical approaches for delivering entrepreneurship learning outcomes in modules and programmes.

Our ambition is that our students will advance from our University with a zest for active citizenship and participation, and the entrepreneurial competences to effect positive change. We take great pride in our graduates; entrepreneurial innovators, capable of delivering solutions for cultural, economic, environmental, and societal challenges.

INSPIRING MINDS

Building upon our success, looking towards 2030:

We will build upon our success to date by:

- > Increasing accredited and experiential entrepreneurship learning opportunities for all students with expanded accelerator programmes, start-up internships, applied entrepreneurship projects, entrepreneurship competitions, and hackathons.
- > Ensuring that all student entrepreneurship opportunities are inclusive, with specific initiatives to engage groups that are underrepresented in entrepreneurship including women, migrants, ethnic minorities, and people who identify as having disabilities.
- > Providing all students and staff with access to training in ideation and design thinking through workshop and bootcamp activities.
- > Establishing a Digital Badge in Entrepreneurship based on the EC EntreComp Entrepreneurial Competences Model that students can use to navigate and accredit their own entrepreneurial learning journey.
- > Supporting faculty to design and develop innovative teaching and learning initiatives targeting entrepreneurial learning outcomes, and establishing an entrepreneurship education community of practice to share learning and enable collaborative education initiatives.
- > In conjunction with our student entrepreneurship supports, developing the TU Dublin Career Service to promote and support entrepreneurship as a career option.
- > Rolling out an entrepreneurial ambassador programme that is rooted in international best practice across all Schools, providing students and faculty with access to successful entrepreneurs and innovation leaders.
- > Extending initiatives that engage our TU Dublin community students and staff to apply entrepreneurial approaches to Sustainable Development Goal challenges, including Hack4Sustainability and ClimateLaunchpad initiatives.
- > Celebrating excellence in student and staff entrepreneurship.
- > Developing collaborative entrepreneurship space on each campus that inspires and facilitates students to engage in entrepreneurial initiatives that create economic, environmental, social, and cultural value.

OUR COMMITMENT:

EVERY STUDENT

To provide an opportunity for every student at TU Dublin to engage in entrepreneurship activities

DIGITAL BADGE

Establish a Digital Badge in Entrepreneurship

300 %

Increase in participation in extra-curricular entrepreneurship activities

SDG IMPACT The development of interventions that connect our entrepreneurial talent and capacities with opportunities to contribute to Sustainable Development Goal impacts

AMBASSADOR PROGRAMME

The development and embedding of an entrepreneurial ambassador programme

Keystone Initiative:

,500 SQ

STUDENT COLLABORATION SPACE

A keystone initiative of our Dare to Discover vision is our ambition of delivering 1,500 sqm of collaboration space for students across the three campuses of our University. These custom-designed spaces will create the perfect environment in which to explore, discover, learn and grow. Equipped with comfortable, flexible furnishings, shared and breakout areas and state of the art technical facilities, these spaces will deliver the ideal environment to inspire ideas and inspire minds.

These spaces will comprise of:

- > Hot Desk spaces for student entrepreneurs
- > Areas for active entrepreneurship learning including industry collaboration zones, teamwork pods, ideation labs, and makerspaces.
- > State-of-the-art entrepreneurship education and training zones
- > Gallery space to showcase entrepreneurship and innovation
- > Flexible event space for regional ecosystem participation
- > Facilities for student entrepreneurship activities including student societies
- > A location for the TU Dublin Entrepreneurship Research Centre, with direct access to University entrepreneurship activities and direct knowledge transfer





02 IGNITING INNOVATION



IGNITING INNOVATION

Support mechanisms that nurture and support early stage entrepreneurship

-

From inspired minds come innovative concepts. At TU Dublin we harness the creative talent of our people and their concepts to catalyse new innovations. Across our campuses we have developed a system of spaces and supports that enable fledgling ideas to grow into startups. These start-ups come from our staff, our students, our alumni, our researchers and from entrepreneurs from across the greater Dublin Region. Our entrepreneurial ecosystem is open and inclusive.

Supporting Entrepreneurs in the Region

Serving the needs of the greater Dublin region and beyond, TU Dublin offers a truly unique and comprehensive portfolio of entrepreneurial support services including:

- > Residency of Enterprise Ireland's New Frontiers Entrepreneur Development Programme at all campuses of the University, providing space, mentoring, supports and funding to high-growth early stage start-up founders in the Dublin region. TU Dublin has an unparalleled track record of achievement in supporting early stage companies from their New Frontiers Programme through to High Potential Start-Up (HPSU) funding and beyond.
- > Alongside programme supports, start-ups have access to innovation supports, Research & Development facilities and a team of experienced and dedicated entrepreneur support staff.

The Environment to Succeed

At TU Dublin we are proud to deliver over 7,000sqm of business incubation space across our campuses. Our incubators have a wide range of options from hotdesk spaces in a coworking environment to own-door office spaces. Our incubators are a highly networked and creative environment which brings together our entrepreneurial, academic and research talent. The culture is open and dynamic and conducive to entrepreneurial achievement and to the creation, rapid growth and sustainability of next generation start-ups. Our incubators are home to some of Ireland's top entrepreneurial talent and most promising export focused start-up companies.

High-Tech Business Incubators

7,000 Sqm of Business Incubation Space

100+ Start-up companies located on campus

150 Companies supported through Ireland's Largest New Frontiers Programme each year

Supporting Entrepreneurship for All

TU Dublin strongly supports the provision of opportunities to explore entrepreneurial opportunity for all persons. At TU Dublin The Institute for Minority Entrepreneurship was established to offer the different minority groups in Ireland equal opportunity through entrepreneurship education and training. 'Minority Entrepreneurship' has been broadly defined by the University to be inclusive of those communities who are generally regarded as being outside of mainstream Irish society in terms of entrepreneurship. The following groups are considered by the Institute to be 'minority entrepreneurship groups': Ethnic, Female, Gay, Grey, Irish-Speaking, People with Disabilities, Prisoners, Socio-economically Disadvantaged, Travellers.

At TU Dublin we have a specific focus on supporting opportunities for female entrepreneurs to engage with our broad range of entrepreneurial supports and develop and lead start-up companies through our New Frontiers Programme. To seed and foster these ambitions, we have a suite of supports, targeted specifically at females designed to encourage entrepreneurial exploration. Initiatives include networks, masterclasses, workshops, meetups, mentoring and bespoke supports. Our goal is to build upon our successes to date, towards a community where over 40% of our start-up companies are female-led.

OUR COMMITMENT

—

> Coordinating all TU Dublin entrepreneurship supports under one common identity to improve access to information, access to supports and increase brand awareness Strategic Goal

- > Increasing the number of student led companies located at our incubators to 15% by 2027
- ➤ Increasing the number of femaleled companies supported through our regional entrepreneurial programmes to 40% by 2030.
- > Partnering with a funder, a corporate or global accelerator to deliver a TU Dublin accelerator programme for next stage development of New Frontiers alumni
- ➤ Explore opportunities to join or establish Seed Fund to support start-up companies established by researchers or students at the University

40% INCREASE IN FEMALE LED COMPANIES

15% INCREASE IN STUDENT LED COMPANIES

CASE STUDY: KIANDA

"There were so many unknowns, so many things we weren't aware of,
New Frontiers opened up so many opportunities for us," Derya Sousa, COO & co-founder says. "Seeing other likeminded entrepreneurs, what stage they were at, seeing their journeys. Some of them were similar to me, some of them were just starting, and wanted to validate their idea."

Kianda has clients spread across
Ireland, UK, US, Belgium and Australia.
Riding on a remote working wave since
the pandemic, Kianda has seen strong
growth and today is supporting clients
such as Deme Group, Mercury, Uniphar,
Resco Products, and Aji BioPharma.
Kianda has raised €1.5M in funding from
Kernel Capital through the Bank of
Ireland Kernel Capital Growth Fund II,
alongside Enterprise Ireland.



O3 EXPLORE & ADVANCE



26

EXPLORE & ADVANCE

Research that supports entrepreneurial ambition

_

TU Dublin has built a strong reputation for entrepreneurship support underpinned by international best practice methodologies. Supporting our development and advancement in these areas, is a comprehensive research programme in entrepreneurship.

In recent years TU Dublin entrepreneurship researchers have supported:

- > More than thirty PhD projects on entrepreneurship and venture scaling themes.
- > Hosting major international conferences including International Council for Small Business World Conference and Technology Transfer Society International Conference.
- > The development of the Institute of Minority Entrepreneurship with research and education programmes targeting more inclusive entrepreneurship participation with specific initiatives for ethnic, people with disabilities, prisoners, and transnational diaspora entrepreneurship.
- > Multiple international entrepreneurship development initiatives including European Commission funded projects in Albania, Indonesia, Vietnam, Brazil, Colombia, Mexico, and Peru.
- > Development of new enterprise development frameworks for digital entrepreneurship, inclusive entrepreneurship, and entrepreneurial leadership.
- > Preparation of new pedagogical approaches for teaching entrepreneurship, including several volumes of case studies.
- > Publications in leading international journals including Long Range Planning, Journal of World Business, Organisation Studies, Global Strategy Journal, Journal of Technology Transfer, Small Enterprise Research, and Journal of Business Venturing Insights.
- > Engaged the TU Dublin COVID-19 Enterprise Response Forum to develop recommendations for building enterprise resilience to COVID-19 impacts and preparing for post-pandemic period.

Building upon our success, looking towards 2030:

-

To deepen our knowledge and impacts in entrepreneurship, innovation, and competitiveness themes, we will establish a TU Dublin Entrepreneurship Research Centre. The centre will support engagement across the University to strengthen multi and interdisciplinary entrepreneurship research activity, and produce research that is relevant to education, industry, enterprise development agencies, Government, and the general public.

It will engage with our ecosystem partners to shape and refine research priorities and build collaborations to deliver research impact. It will provide a research environment to enhance research opportunities, academic excellence, real-world problem solving, and knowledge creation and dissemination, and will serve as an organising platform from which we will build new regional, national, and international collaborations.

The centre will inform the development of leading-edge enterprise development frameworks, methodologies, tools, and techniques, ensuring that our entrepreneurship supports are responsive to the changing needs of entrepreneurs and innovators. The research will extend beyond mainstream stereotypes, particularly addressing inclusive and sustainable entrepreneurship.

The research programme will also reinforce entrepreneurship education across the University by informing the design of new modules and programmes and producing new entrepreneurship pedagogical approaches and instruments, including case studies illustrating best practice and supporting entrepreneur and innovator learning.

OUR COMMITMENT

_

- Hosting a high profile annual
 Entrepreneurship Conference at
 TU Dublin
- ➤ 20 research publications and other scholarly outputs in the areas of Entrepreneurship each year
- > 25 PhD project commencements in the areas of Entrepreneurship by 2030
- ➤ Secure €8m in national and EU funding for Entrepreneurship related projects by 2030

Strategic Goal 03

Annual Entrepreneurship
Conference at the
University

RESEARCH PUBLICATIONS S PHD PROJECT
COMMENCEMENTS

Million worth of national and EU funded projects by 2030

CASE STUDY: DANU SPORTS

Oisin Lennon graduated from TU Dublin in 2016 with a BSc in Product Design. He subsequently joined Connexicon Medical, a medical product start-up as a Medical Device Designer.

Working in an innovative and entrepreneurial organisation, Oisin quickly developed his own entrepreneurial interest and with encouragement from Connexicon, he undertook the Enterprise Ireland funded, New Frontiers Phase 1 and Phase 2 programmes at TU Dublin in 2017.

This led Oisin to found Danu Sports which combines Oisin's passion for sports with his expertise in product design and healthcare. Building on concepts explored while completing his undergraduate thesis, Danu Sports have developed a wearable gait and performance analysis system that is designed to replicate the accuracy of state-of-the-art lab-based analysis devices while removing the constraints of such equipment in real-world practice. Its mission is to support the world's best and most innovative teams to operate on the cutting edge of performance, through reduced injury risk and enhanced sports performance.

Oisin has so far raised over €1m in seed funding from a variety of sources including the European Space Agency Space Solutions Programme, Enterprise Ireland HPSU, and private investors. This has enabled him to build Danu Sports into a team of 5 with further growth expected. The product is currently undergoing final tests with a number of high-profile sports organisations in advance of its market launch later in 2022.

04 CONNECT& COLLABORATE



34

CONNECT & COLLABORATE

A globally connected network of entrepreneurs, innovators and supporters

-

Our closely connected network of students, staff, alumni, community, industry and partners are our greatest asset at TU Dublin. Through this incredible network, we can provide unparalleled collaborative opportunities for our entrepreneurs.

The greatest impacts are delivered to entrepreneurs who engage with a broad spectrum of supports available through TU Dublin. These supports range from access to technical equipment, facilities and expertise, through to business mentoring, funding and spaces to locate your start-up company. Leveraging the scale of engagement options available at TU Dublin, presents us with an opportunity to focus on deepening relationships, connections and collaborations with all ecosystem players both inside and outside of the University.

We will build upon our strong reputation and legacy of success to become a dominant ecosystem player, delivering value to the entrepreneurs who seek our support and delivering economic impacts in wealth and employment in the regions served by the University.

Building upon our success, looking towards 2030:

_

Building on our success to date we will consolidate the breadth of offerings available to support entrepreneurs into an accessible, easy to navigate, integrated ecosystem of supports is a key priority at TU Dublin. This will ensure that entrepreneurs can advance from one support to another with ease and in turn, deepen their engagement with the University.

Additional to this, we will deepen our relationships with regional ecosystem players to advance the opportunities for further funding and support of TU Dublin originated innovations and companies. We will continue conversations about how TU Dublin can most productively interact with regional entrepreneurs, and use careful analysis to determine how best to advance our entrepreneurship goals.

We will further extend the reach of our University system to regional, national, and international systems, introducing TU Dublin entrepreneurs to wider entrepreneurial support networks, and introducing external stakeholders to our entrepreneurship and community and ecosystem.

OUR COMMITMENT

_

- ➤ The development of a central information point for all entrepreneurship supports and services at TU Dublin
- > The development of an internal community of practice where best practice is shared and opportunities to link supports are leveraged for the advancement of our entrepreneurs
- > Expansion of our participation in Horizon Europe and other European funded activities that support student and enterprise entrepreneurship and innovation development (e.g. EIT Innovation Communities, Erasmus+ Alliances for Innovation)
- > Extension of our student and staff participation in international collaboration activities through the European University of Technology and other international partnerships.
- > Establishment of an entrepreneurship advisory board with key actors from Irelands start-up ecosystem
- > Provision of space, facilities and partnership for events, workshops, hackathons and meetups to support the ecosystem in the region
- > Increasing opportunities for inbound and outbound secondments that support shared best practice learning and enhancement of entrepreneurship ecosystem.

| SINGLE POINT OF ACCESS

ENTREPRENEURSHIP ADVISORY BOARD

COMMUNITY OF PRACTICE

SPACE & FACILITIES FOR EVENTS & PARTNERSHIP

| INCREASE INTERNATIONAL | COLLABORATION

MORE PARTICIPATION IN EU PROJECTS

Porter & Nash produce fat free, glutenfree, plant based gravy and sauces made with roasted root vegetables and herbs infused with Irish seaweed for an umami flavour. Their range serves a broad audience of people who love food and who also may or may not be vegetarians/ vegans.

BA Culinary Art Graduates Gavin Cassidy and Eoin Lennon met at TU Dublin while upgrading their culinary skills. In the kitchens of the University, a prototype of their plant based gravy was designed. They took this design and experimented for over a year while both of them attended the SuperValu food academy.

During this Gavin also participated in the New Frontiers programme at TU Dublin. In 2019 Porter & Nash was formed and in late September they launched their products into a number of stores. In 2021 Porter & Nash received a gold star for both of their sauces in the Great Taste awards. They are now sold in over 100 stores nationwide and the team are researching the export market.



GET IN TOUCH

WE WOULD BE DELIGHTED TO HEAR FROM YOU

entrepreneurship@TUDublin.ie

+353 1 220 5000





