

# Designing Futures

## Infrastructuring innovation in Irish higher education

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This article introduces the University of Galway's Designing Futures programme, a new educational programme that will prepare students to deal with today's complexity and uncertainty and the future world of work. The programme has been funded for five years (2020–2025) through the Human Capital Initiative. It has been developed to enhance the employability of university graduates by offering additional practical and creative teaching, learning, and skills development alongside traditional degree studies.

The Designing Futures programme at the University of Galway is an institution-wide initiative that is transforming and enhancing the student learning experience, while providing opportunities and supports to university faculty to fundamentally change, and hopefully augment, their teaching.

Open to all University of Galway students and staff, Designing Futures comprises a suite of complementary and connected initiatives and modules, focused on developing the attributes, dispositions, and skills required of graduates for living and working meaningfully and productively in the complex and challenging world of today and tomorrow.

Designing Futures (DF) is a flagship programme which received €7.57m in funding through the Human Capital Initiative Pillar 3 by Ireland's Higher Education Authority (HEA, 2020). It is predicated on a number of core innovations, including a new entrepreneurial learning space in the heart of campus, the IdeasLab; a radically new approach to student learning called VIP (Vertically Integrated Projects); and a world-renowned career and personal coaching programme developed by Stanford University called Design Your Life.

Underpinning the entire DF initiative at University of Galway are design thinking, and creative and innovative approaches to student engagement, learning, and teaching. Designing Futures is fundamentally a participatory project, facilitating new ways for students and staff to collaborate and learn together, and thereby helping to create a new community of learning on campus. Furthermore, as we outline below, it represents a new way of connecting with key local, national, and international partners in enterprise and industry in new forms of collaboration, enhancing the relationship between 'town and gown'.

Before the global Covid-19 pandemic, which disrupted the education of approximately 1.6bn learners worldwide, the Irish government



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issued a call for funding, the Human Capital Initiative Pillar 3, for innovative programmes that would help transform higher education in Ireland. The call was in no way connected to Covid-19, as this was unanticipated at the time, but its aim was to support novel programmes and initiatives to prepare graduates to deal with the challenges and complexities of life and the workplace.

Funded projects would have to succeed, of course, by fulfilling or exceeding their key performance indicators (KPIs) and metrics. But there was also the expectation that they would push the boundaries and possibilities of higher education in Ireland, particularly in realising new models of student engagement and learning, and new ways of partnering with enterprise, cultural, and societal partners. Thus, an acceptable level of strategic risk was acknowledged for these projects, in delivering on the imperative to do something innovative and different and offer a different vision of university education for the 21st century.

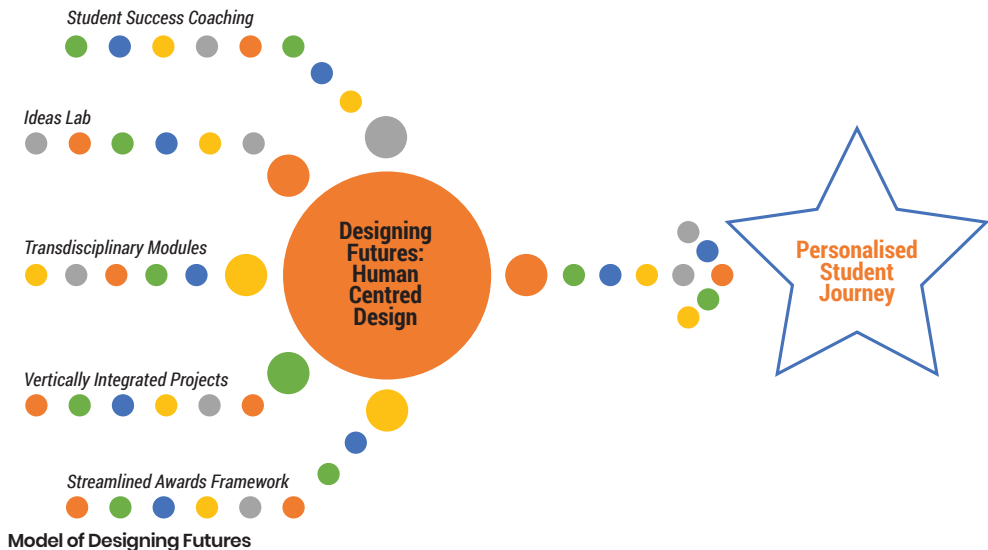
Research shows that future jobs will necessitate new ways of learning, more connected to work and life beyond academe, and transversal skills development, which crosses, incorporates, and synthesises different disciplines and specialisms, with a particular emphasis also on interpersonal and collaboration skills, higher-order and critical thinking, and system skills (Bakhshi et al., 2017). The challenges of the modern world necessitate new ways of thinking and new models of learning in the university and tertiary education sector. Salmon (2019) has drawn attention to the imperative to unbundle the traditional university – to challenge and break down the boundaries and academic silos that exist between different academic disciplines.

**“ Delivering the innovative Design for Learning programme entails close collaboration between students, university management, professional services colleagues, and academic faculty.”**

Core to the vision of Designing Futures is the educational design concept of *infrastructuring*: that bringing about transformative educational change involves successfully coordinating a range of impactful, mutually enhancing initiatives in a sustainable and scalable approach, with parity of esteem and true partnership among stakeholders. Delivering the innovative DF programme therefore entails close collaboration between students, university management, professional services colleagues, and academic faculty. DF also extends beyond the walls of University of Galway, connecting the university with key enterprise partners, including nine named industry partners: Boston Scientific, Veryan, Aerogen, Channel Mechanics, mBryonics, SAP, Galway International Arts Festival, Rent the Runway, and Medtronic.

Designing Futures has changed how the University of Galway engages with enterprise on graduate employability. It is moving us from a transactional model to a fully developed and cohesive framework for partnership. The target population is current undergraduate students at the University of Galway, with particular emphasis on students in an un-denominated programme in the Arts and Science schools. DF is at an early stage of implementation, with most initiatives in development. It has the following objectives:

- differentiation of the University of Galway student experience
- student-centred transdisciplinary learning
- sense of belonging and ownership for students
- clear personal pathways and supports
- increased retention and progression
- open curriculum that makes the most of a generalist university experience
- enterprise integration through managed engagement
- preparation for life after university: from employability to personal empowerment
- clearer signposting of professional skills achievements to potential employers.



The figure illustrates the main components of the DF programme as it is implemented over a five-year time frame. Each component is defined below.

*Student Success Coaches* support students to take an active role in 'designing their lives' in order to achieve their unique academic, personal, and life goals during their time at university. Support sessions can be delivered either one-to-one or in group or workshop format. Students can work with a coach to:

- navigate their successful transition into university life and community
- increase their self-awareness with the aim to maximise their interests, talents, and values
- make decisions about their educational and professional goals, including module choices
- explore co-curricular and extracurricular opportunities, e.g., societies, clubs, and peer learning, that can complement and support their degree, or just to connect students more closely with fellow students and their university community.

*IdeasLab* activates and cultivates a community of curious and innovative minds across the campus. *IdeasLab* nurtures and supports students to develop skills to explore new possibilities with real-world impact. It offers educational programming and events, enterprise-specific activities, and funding supports to inspire and develop creative and innovative confidence in our student and enterprise communities. The approach taken within the unit is based on applying human-centred design (Brown, 2008).

*Transdisciplinary Modules* enhance students' professional skills, designed by experts from across the university and with input from our enterprise partners. Modules include Design Your Life, Design Thinking, Digital Citizenship, Global Engagement, Scalable Technology-based Innovation, Communicating through Storytelling, Introduction to Sustainability, and Megatrends. These modules are available for credit and are delivered to students in transdisciplinary settings, where they engage with students and faculty outside their main academic assignment.

*Vertically Integrated Projects (VIPs)*: Through VIPs, students work in teams with faculty on multidisciplinary, longitudinal research projects to address grand challenges. Students earn credits and can participate in multiple semesters, with returning students taking on additional leadership/project responsibilities. 'Vertically Integrated' refers to VIP team compositions, which can include undergraduate, postgraduate (taught), and research students and university staff. This approach originated in Georgia Institute of Technology, USA (Strachan et al., 2019). During DF, the University of Galway will join the international VIP consortium.<sup>1</sup>

*Awards Framework*: A streamlined Student Award Framework will be introduced to recognise students' personalised skills development and achievements (curricular, co-curricular, and extra-curricular).

DF's key focus is student engagement, predicated on the latest educational research and higher education policy, which identifies student engagement as an ongoing challenge for higher education institutions, both in Ireland and internationally. During the project implementation, the team will maintain an evidence base of project implementation and learning as it unfolds, and will collate evidence to support the project's sustainability. The following research objectives have been identified:

1. To undertake a formative evaluation tracking the development of project context, implementation, and participation.
2. To explore the perspectives of students, staff, and enterprise partners regarding their experiences of DF.
3. To explore whether participation in *IdeasLab* fosters the development of the entrepreneurial potential and innovative competencies of the students who take part.<sup>2</sup>
4. To reflect on how DF initiatives can be conceptualised, enhanced, and further developed.

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## REFERENCES

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## ENDNOTES

1. [www.vip-consortium.org/](http://www.vip-consortium.org/)
2. This objective is informed by the Entrepreneurial Potential and Innovation Competences (EPIC) assessment tool available through [www.heinnovate.eu](http://www.heinnovate.eu). The EPIC tool is used in this evaluation, alongside a number of additional data streams.

There is the expectation that funded projects will push the boundaries and possibilities of higher education in Ireland, particularly in realising new models of student engagement and learning, and new ways of partnering with enterprise, cultural, and societal partners.

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