



TRINITY COLLEGE DUBLIN  
COLÁISTE NA TRÍONÓIDE, BAILE ÁTHA CLIATH

THE  
UNIVERSITY  
OF DUBLIN



## Trinity Research & Innovation

**Audrey Crosbie**  
Industry Liaison Manager

**Bridget Noone**  
Enterprise Executive

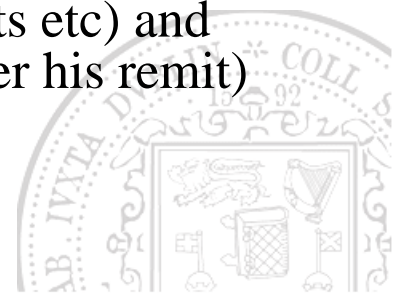
**Graham McMullin**  
Technology Transfer  
Case Manager



**Audrey Crosbie**, is Trinity's Industry Liaison Manager, works with Companies interested in collaborating with Trinity to carry out research. Audrey is also a member of the Task Force for the Innovation Academy, this joint initiative between Trinity and UCD (The Innovation Alliance)

**Bridget Noone** is Enterprise Executive and manages Trinity's Entrepreneurship programme. She is based down the Trinity Technology and Enterprise Campus on Pearse Street and gives a lot of support to young entrepreneurs setting up new ventures. Bridget will also talk about the incubation / hot-desk available for any student with an idea for a new company.

**Graham McMullin** is the Technology Transfer Case Manager for the physical sciences. Grahams work involves capturing, protecting (patents etc) and commercializing research (the school of Engineering falls under his remit)





## Trinity Research & Innovation

Trinity Research & Innovation (TR&I) actively supports, promotes and manages the interface between TCD Academics, funding bodies and Industry. Furthermore, TR&I manages Intellectual Property, Technology Transfer and Innovation, Commercialisation and Entrepreneurship.

### Research Development

The Research Development team liaises between TCD's Academics, Irish and International funding bodies. This section of TR&I provides advice on funding for research projects ensuring research proposals are compliant with Agency and College policies.

**In 2008:** A total of **1,227** research and funding applications were processed.

### Contracts

The Contracts team is responsible for the review & execution of all research & service contracts and tenders from the perspective of financial exposures and liability ensuring College's due diligence and compliance in contractual matters

**In 2008:** A total of **684** contracts entered into by TCD

### Entrepreneurship

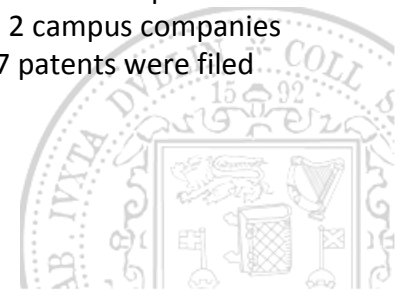
This division has a wide range of activities to support new ventures spinning off from research and teaching in TCD, including a comprehensive training programme and the development of national and international networks of innovation

**In 2008:** **43** postgraduates and researchers entered the Entrepreneurship Programme and **8** MBA projects were supported.

### Technology Transfer

This division captures, protects and commercially exploits TCD's Intellectual Property that arises from innovative research. The Technology Transfer team also promotes the creation of cooperative linkages between TCD and the world of industry, in order to help researchers to find commercial options for their ideas and inventions and to attract companies towards new areas of Trinity's research

**In 2008:** 43 Invention Disclosure Forms were received, 6 full- & 7 option- licenses were executed, 2 campus companies spun out and 27 patents were filed





# Commercial Exploitation

## Campus Company formation or License to established company

- Patent is filed: assume it is granted
  - IP is licensed to a new campus company which seeks investment
  - Inventor may have shares in the company, and may be a director
  - If the company succeeds, the inventor will receive royalties and may gain from sales of shares, and from consultancy.
- Patent is filed, and assume it is granted
  - Investment needed for further research
  - Patent is licensed or sold to an established company
  - Company pays for research, and for performance of patent
  - Inventor may get share of royalties.





## TCD encourages campus company formation

- Researchers can own equity in campus companies and can benefit from same
- Staff can receive leave of absence
- Staff can be directors of companies while continuing in their full-time academic jobs, subject to Head of School consent
- NB: Their choice

**AND** – always mindful of potential conflict of interest





## TCD Research

<http://www.tcd.ie/research/>



**Significant investment in research in recent years,  
Over €100 million spent on research activity during 2009**





# Trinity College Intellectual Property Policy

**TCD claims all ownership of IP** generated by Staff/Inventors during their employment; Inventors must assign their IP rights to TCD

TCD endeavours to **protect all IP**  
Aided by Enterprise Ireland initially

TCD endeavours to **commercialise IP**

- Licensing to a third party
- Licensing to a campus company

TCD shares financial benefits with Inventors





## Industry Engagement Model

- Our model for interaction is to engage in research projects which incorporate the following elements
  - Interesting fundamental science in areas which overlap with our research strengths
  - The science should directly lead to a clear intersection point with a product development or industry roadmap.
  - The project must have buy-in at all levels from any potential partner.
  - It must comply with our IP policy.
- In addition Trinity favours industry partnerships which allow for researchers to be embedded within the centres in TCD.
- 40% indirect costs are charge on all industry funded research.





# Innovation Alliance



Silicon Valley tech leaders sign innovation accord with Ireland's leading universities  
TCD President: John Hegarty, John Hartnett, ITLG, UCD President, Dr Hugh Brady





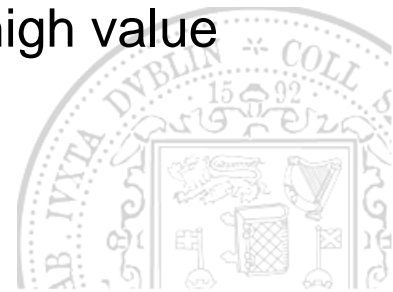
# Innovation Alliance

**11 March 2009 launch**

## **UCD-Trinity Innovation Alliance to drive Smart Economy job creation**

- Joint effort to stimulate growth of a new national ecosystem for innovation
- Up to 300 companies and thousands of Smart Economy based jobs in ten years targeted

Alliance partners will work with the education sector, the State and its agencies and the business and venture capital communities to develop a world-class ecosystem for innovation that will drive enterprise development and the creation of sustainable high value jobs.





# The Innovation Alliance two major components

- *Joint Venture in Enterprise Development* will build on the universities' existing technology transfer operations and enterprise facilities. It will include new facilities for pre-competitive research and design, prototyping and process innovation - to help harness and commercialise new ideas, knowledge and inventions.
- The new 4th level TCD / UCD *Innovation Academy* will begin the process of defining and mainstreaming innovation as the 3rd arm of the university mission alongside education and research. It will focus particularly on 4th level PhD training, positioning innovation centre-stage in their courses, facilitating student mobility between campuses, and ensuring that the breadth and depth of expertise and resources at UCD and TCD are available to Ireland's future entrepreneurs.





# Vision

The Alliance envisages building a world-class enterprise corridor between TCD and UCD that will be home for up to 300 new enterprises with advanced technology centres to support indigenous industry.

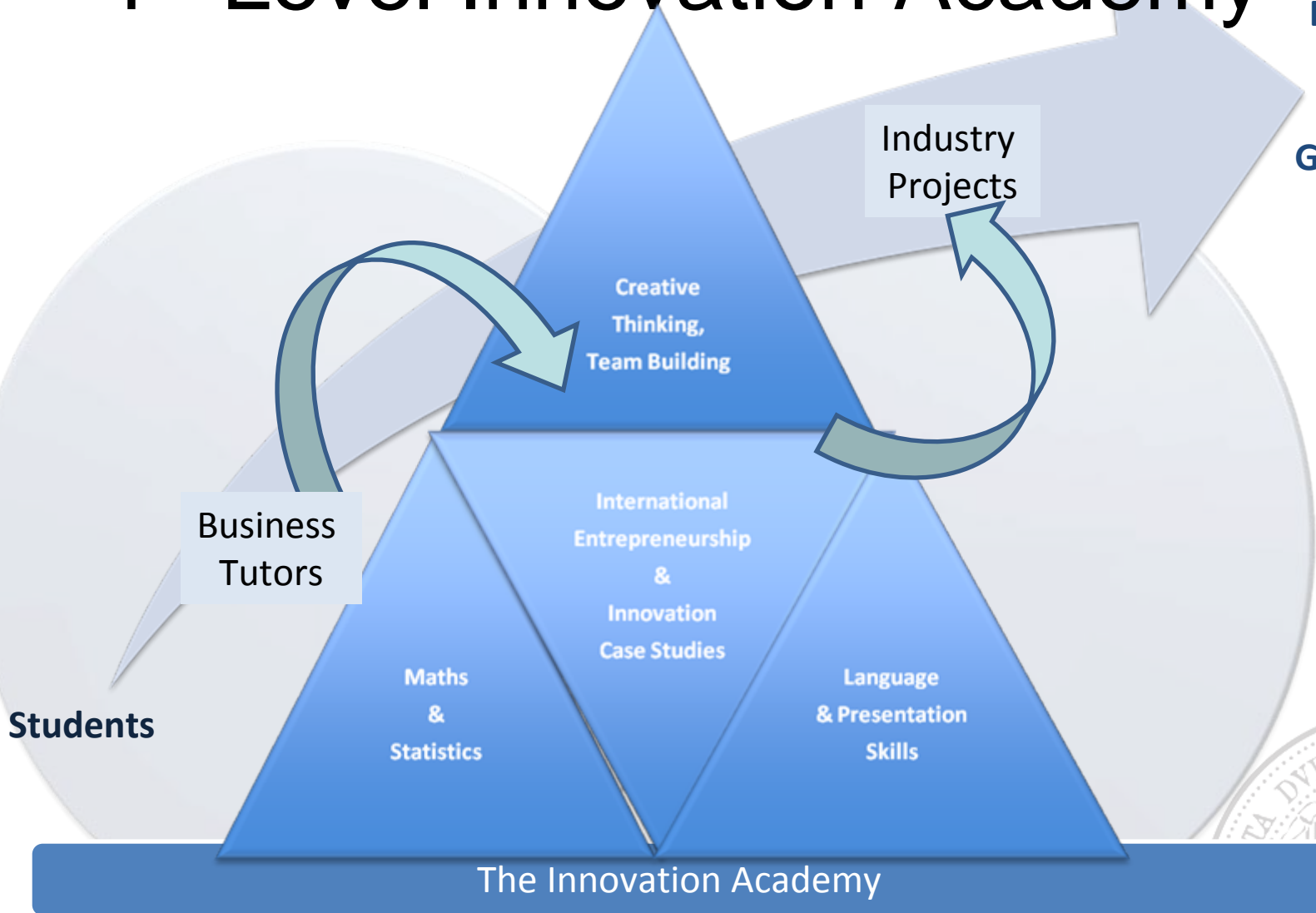
It will be a prototype for a national ecosystem to establish Ireland as an international hub for innovation. It will be similar in concept to the IFSC but focussed on the creation and scaling up of indigenous knowledge and technology-intensive enterprises and the attraction of multinational employers that will become the cornerstone for the knowledge economy





# 4<sup>th</sup> Level Innovation Academy

Business  
Aware,  
Quality  
Graduates





## TCD-UCD Alliance

Research planning

Infrastructure planning

Oriented Basic Research

Industry Oriented Research

## Innovation Academy

Graduate Entrepreneurship &  
Innovation Training

Short-term multidisciplinary  
applied innovation projects

Creativity  
Entrepreneurship  
Social  
Policy

## Venture Creation

Emphasis on deal flow and  
enablement

Minimising delays to  
commercial events

Maximising transfer of  
knowledge – pooling IP

Providing for fair return to the  
institutions – with payments  
deferred for up to five years

Realistic diluting initial equity  
stake

Time-linked assignment of IP  
to third parties based on  
milestone attainment

## Business Development Unit

Trinity Technology &  
Enterprise Campus

Belfield Innovation Park

Mentoring Network

Managed Investment Fund

Scaling Premises



# Pipeline of Trained Innovators/Entrepreneurs for Ireland

*Innovation Academy - Education & Application*

*Innovation Academy Modules, Diploma  
– EDUCATION*

Masters, CPD

PhD Students

Undergrads

*Industry-Mentored Projects & Systematic Innovation Lab  
- APPLICATION*

*Innovation Academy supports  
Alliance vision*

Investment in Innovation for :

Creation of up to 30,000 new  
high level sustainable jobs

Realisation of up to 300 new high  
value companies of scale

Protection of 150,000 existing  
FDI jobs

Transition Irish Enterprise from  
**SE** to **ME**

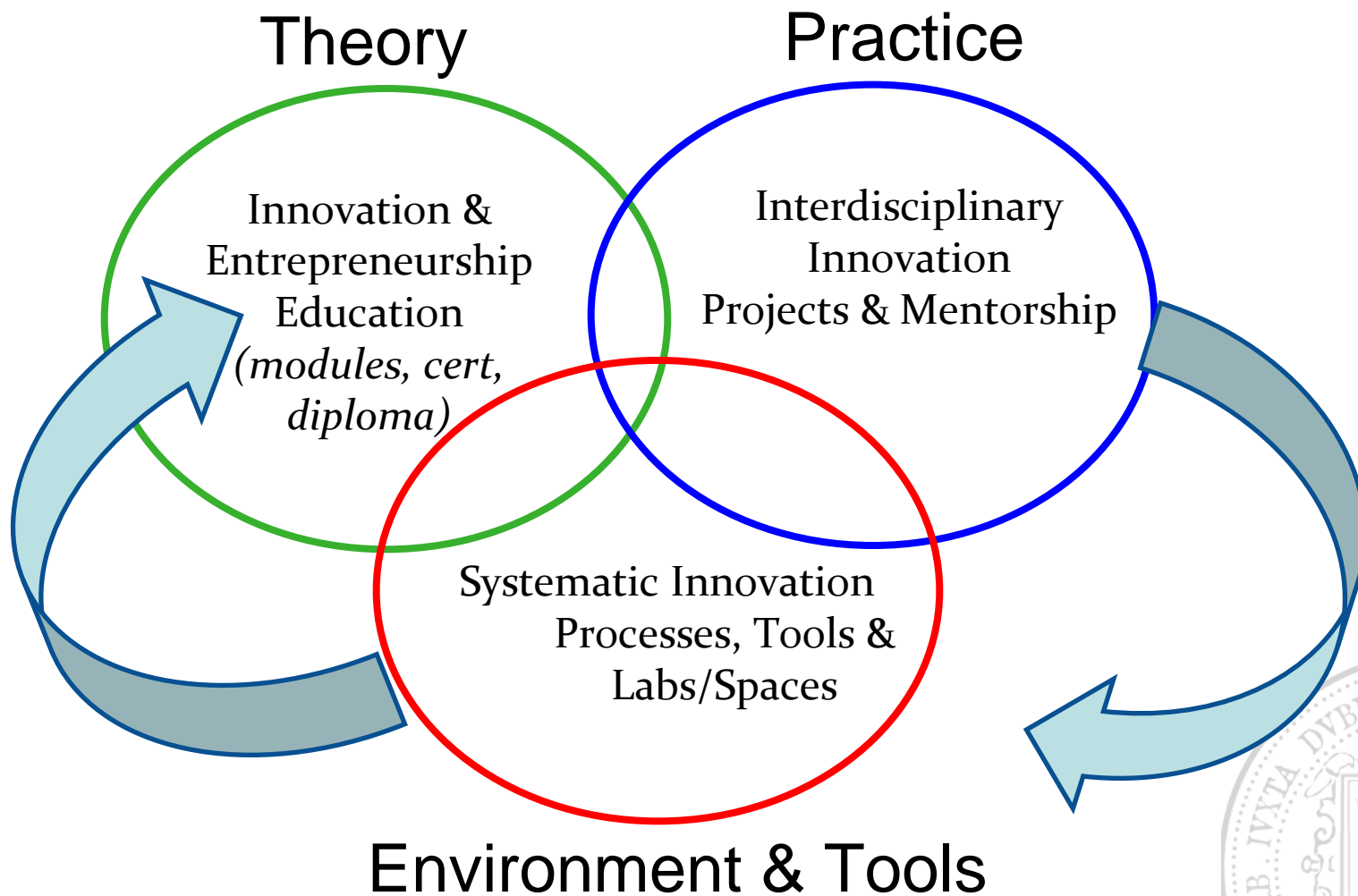
Futute cohort of business-aware  
academics





# Academy – unique student experience

*Innovation & Entrepreneurship – Education/Training & Practical Application*





## Contact Details

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[http://www.tcd.ie/research\\_innovation/](http://www.tcd.ie/research_innovation/)

