Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Faculty of Health Sciences

Faculty Forum on Industry Engagement

Audrey Crosbie, Industry Liaison Manager
Trinity Research & Innovation

19th November 2015

Agenda

Audrey Crosbie	Overview of Trinity Research & Innovation (TR&I)
Chris Keely	Supports available for working with Industry
Gordon Elliott	How to commercialise your research
	& Trinity's partnership with RCSI for Technology Transfer & Industry Engagement
Fionnuala Healy	Start-up company supports

Case studies

Examples of spin-outs from Trinity

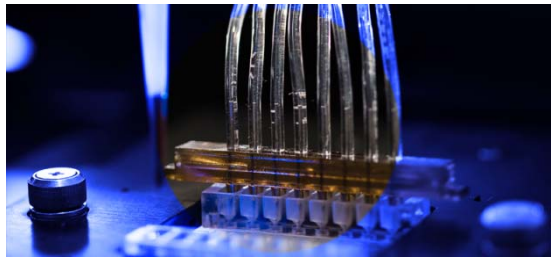
John Gilmer	Solvotrin Therapeutics - Spin out from School of Pharmacy & Pharmaceutical Science
Emily Vereker (Padraig McAuliffe)	SelfSense Technologies - Spin out from Dental School + the SFI Amber Centre

Success Stories of Trinity's Engagement with Industry

John Dinsmore	School of Nursing and Midwifery
Barry McMahon	School of Medicine & The Innovation Academy
Adriele Prina Mello	School of Medicine

Trinity Research & Innovation

Who are we?



Research Development Office (RDO)

Supports Trinity researchers by providing information and advice on sources of research funding and calls for proposals. All research funding applications from Trinity are signed off by the RDO prior to submission to the funding agency.

Contracts Office (CO)

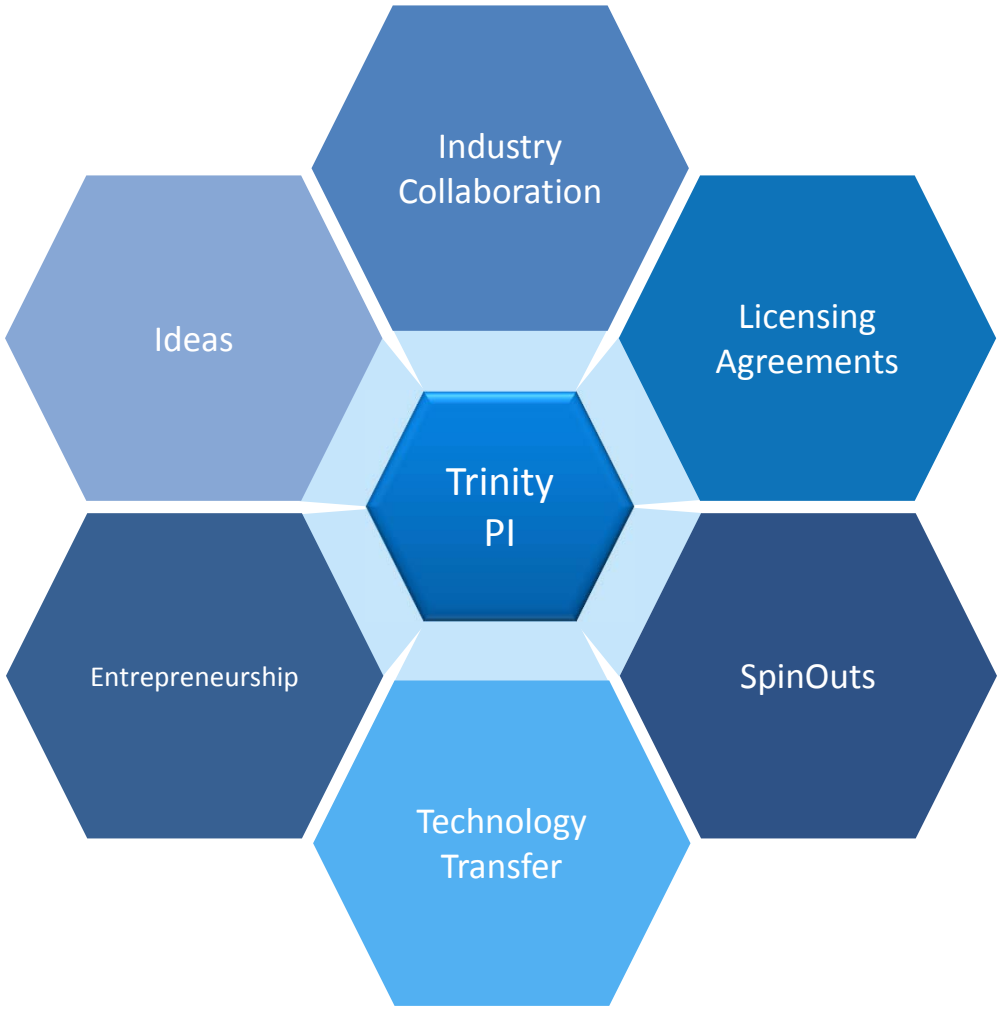
Advises on, and negotiates, the terms of all research contracts awarded to Trinity and all collaboration and partnership agreements entered into by Trinity. The CO executes all research funding contracts on behalf of the university.

Office of Corporate Partnership and Knowledge Exchange (OCPKE)

Encompasses the technology transfer and industry engagement functions of TR&I. Manages intellectual property, supports Campus Co. formation and builds external relationships to facilitate academic-industry research collaborations.

Trinity Research & Innovation

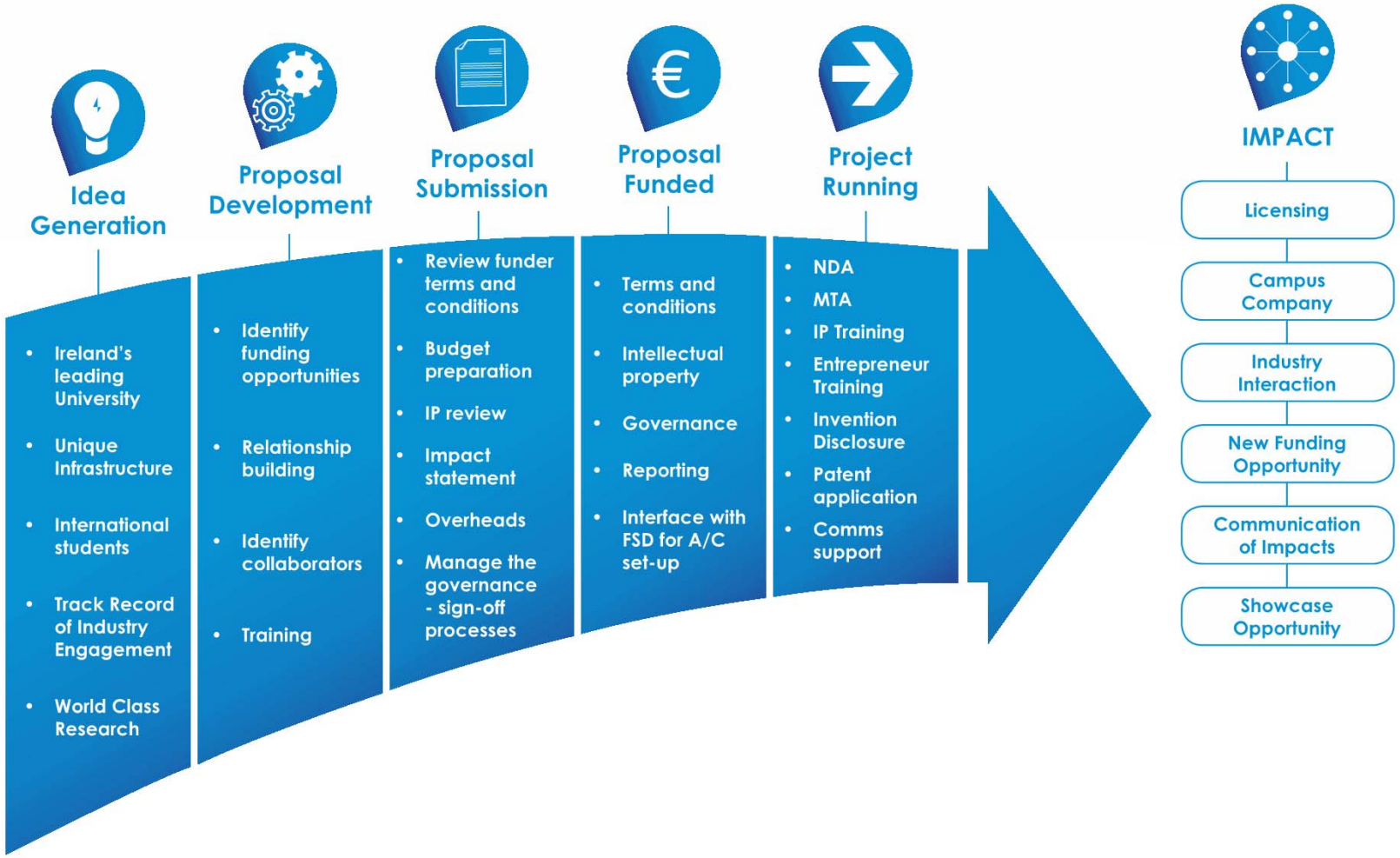
What we do



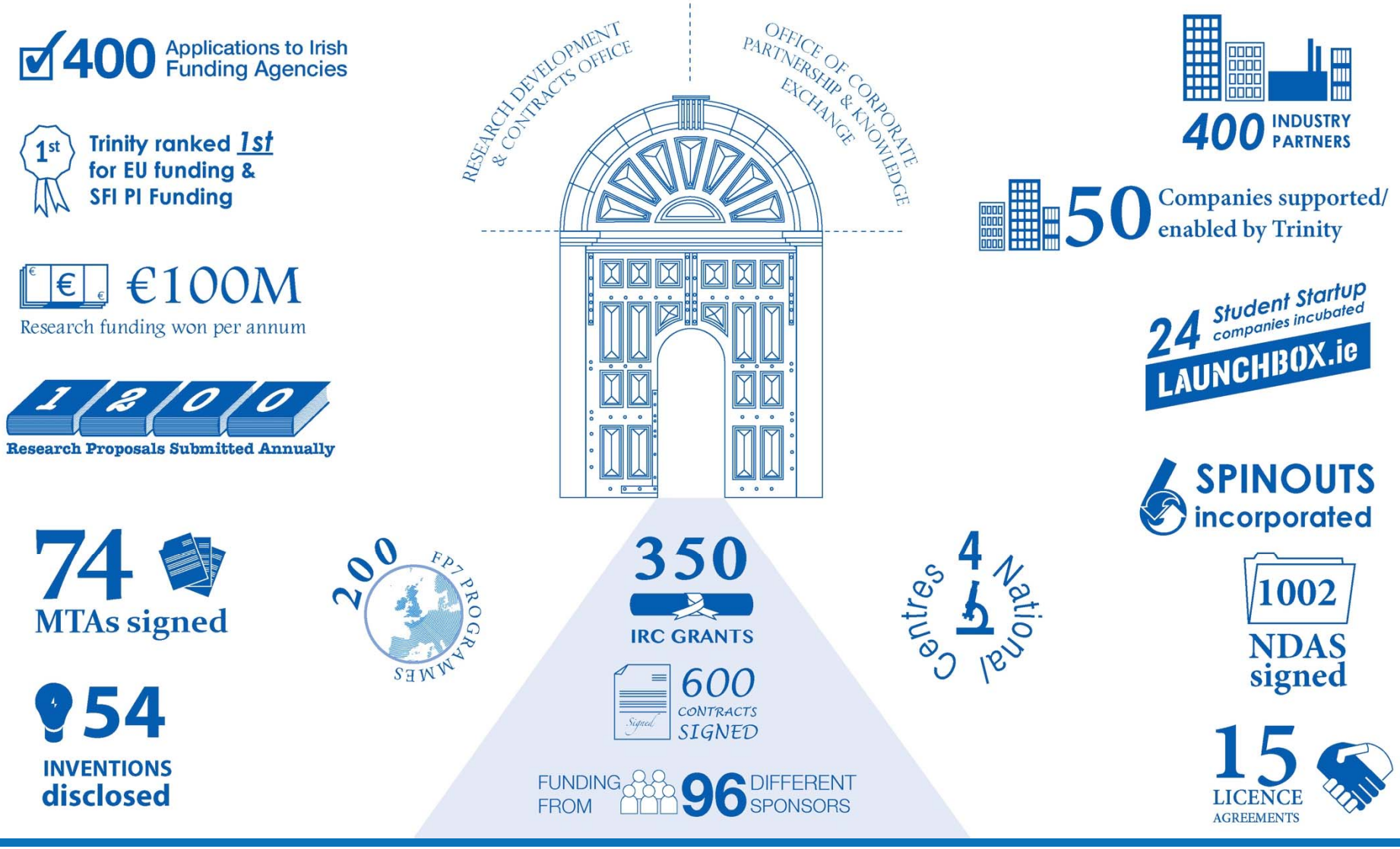
Trinity PI is at the **core** of **everything** we do

Trinity Research & Innovation

What we do



Trinity – A year of ideas and impacts



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Research to Impact to Opportunity

Dr. Chris Keely

Senior Business Development Manager, Trinity Research & Innovation ,chris.keely@tcd.ie

Trinity College Dublin

A research intensive University in the heart of Dublin City

No.1

University in Ireland

QS World University Rankings, THE World University Rankings and the Academic Ranking of World Univeristies (Shanghai)

Top 1%

of research institutions in the World in 17 Essential Science Indicator Fields

Physics, Chemistry, Engineering, Social Sciences (General), Immunology, Neurosciences, Nanosciences, Materials Science, Pharmacy and Toxicology, Molecular Biology and Genetics, Biology and Biochemistry, Microbiology, Plant and Animal Science, Clinical Medicine, Agriculture, Psychiatry/Psychology, Environment/Ecology.

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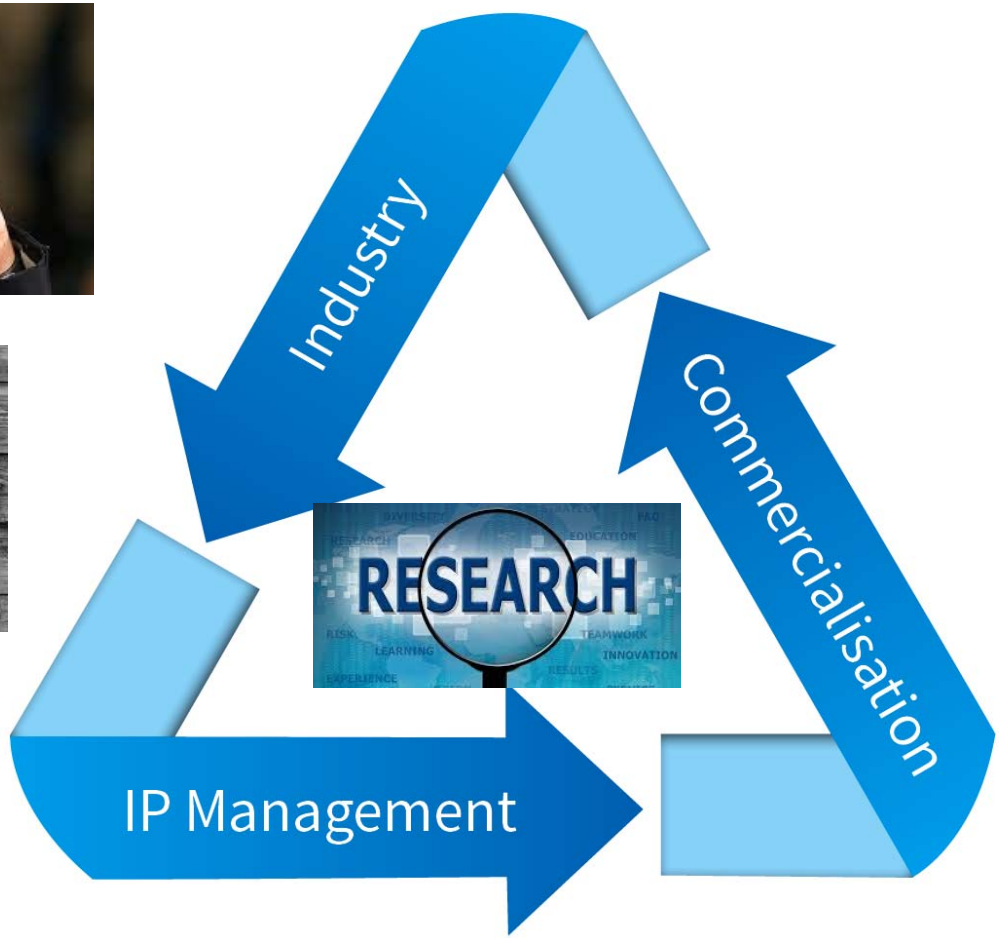
Office of Corporate Partnership and Knowledge Exchange – guiding industry through the complicated maze of academic partnership.

The Office of Corporate Partnership & Knowledge Exchange



Why Engage with Trinity….

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Ollscoil Átha Cliath | The University of Dublin

- Access to world class research capability focusing on industry challenges – near-term, medium and long.
- Access to highly trained engineers and scientists
- State of the art infrastructure
- Leveraged & access to research funding
- Graduate Employment & Recruitment Pipeline
- Access to intellectual property.
- Leading Edge over competitors – new and expanded markets

What industry provides…..

Industry Researchers – onsite or at home

In-kind Contribution – staff, access to materials..

Collaboration – builds relationships – Trust – Opportunities

€ to use and/or co-invest to leverage more €

Some Challenges …….

The research eco-system – A busy Campus……

Irelands leader in ERC Performance

ERC Grants to date from H2020

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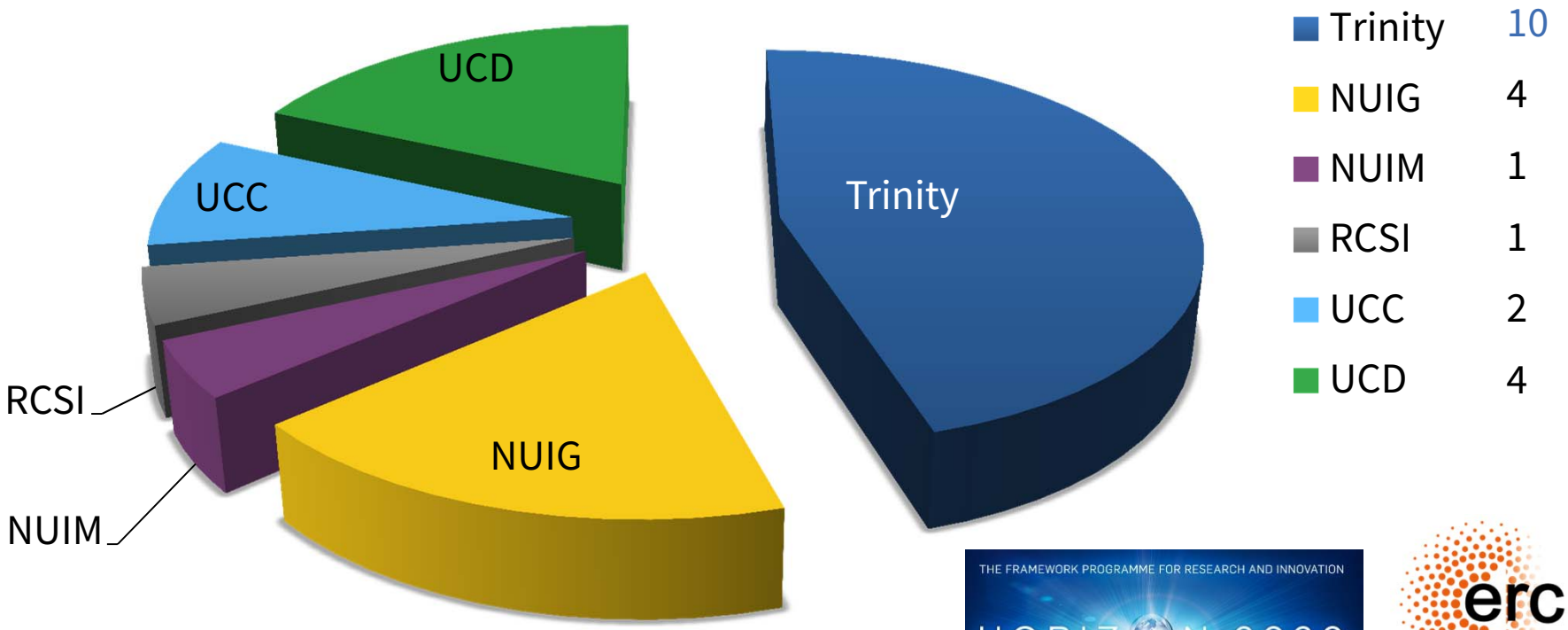

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION
HORIZON 2020

erc

Trinity has 16% of academic university faculty nationally – winning 50% of ERCs.

Ireland's Leader in FP7 & H2020

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- **Trinity secured more FP7 funding and more ERC grants than a other Irish institution**
  - Value of Contracts >€90m
  - Value to Irish SMEs >€4.7m
  - Value to Irish based MNCs >€2m
  - Trinity was awarded the highest proportion of grants over €1m
  - Trinity was successful in 218 awards in FP7, coordinating 27 projects
- **In H2020 Trinity has submitted 388 applications.**
  - 36 grants to 36 discrete PIs awarded [Value ~ €24.5m]
  - Ambitious institutional target of €155M from H2020

Trinity – SFI Success

(2001 – 2014) – National Impact

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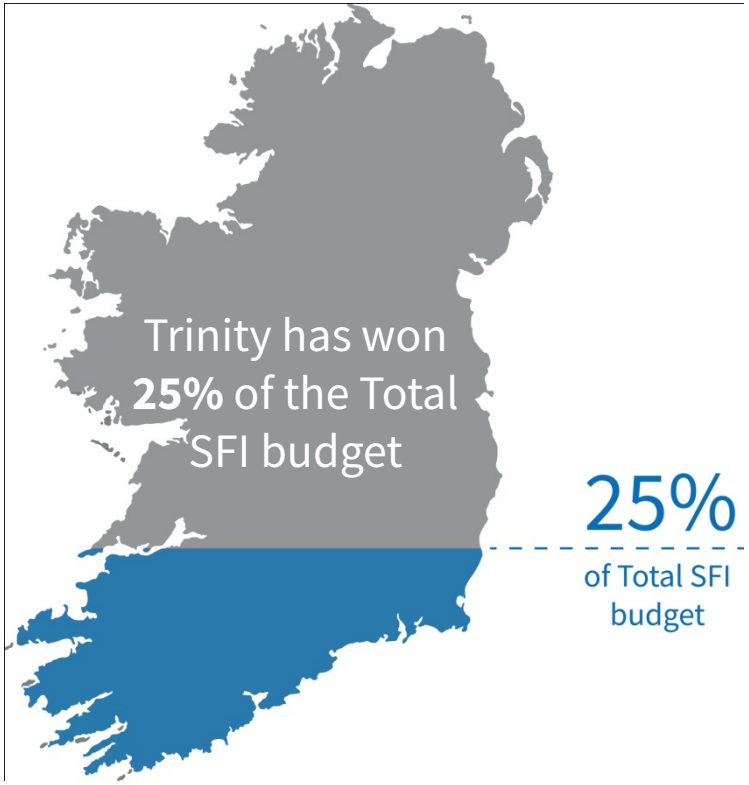
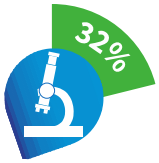
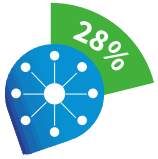
Trinity embodies the SFI vision of excellence leading to impact.



In key areas Trinity has won:



32% of PI funding



28% of Centre funding

22% of TIDA funding

40% of PIYRA awards

Globally Unique Infrastructure

Industry Engagement

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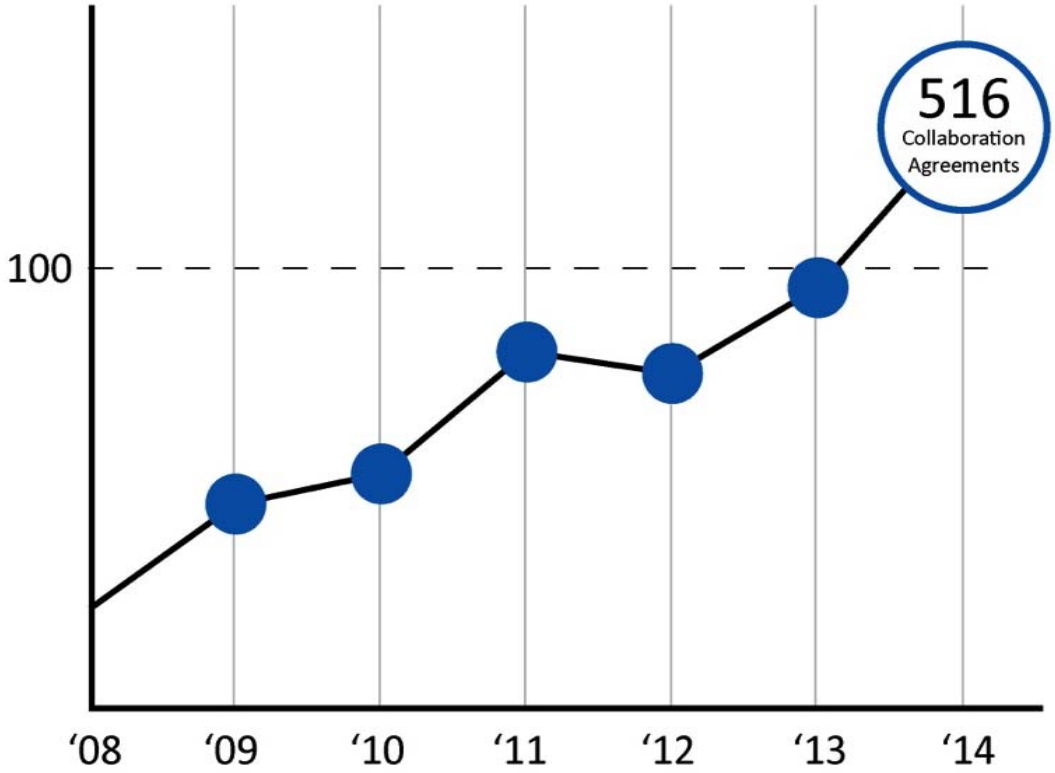
Collaboration Agreements

Trinity signed **516 industry collaboration agreements** between 2008-2014



The Engagement Process

Our roadmap for industry partnership

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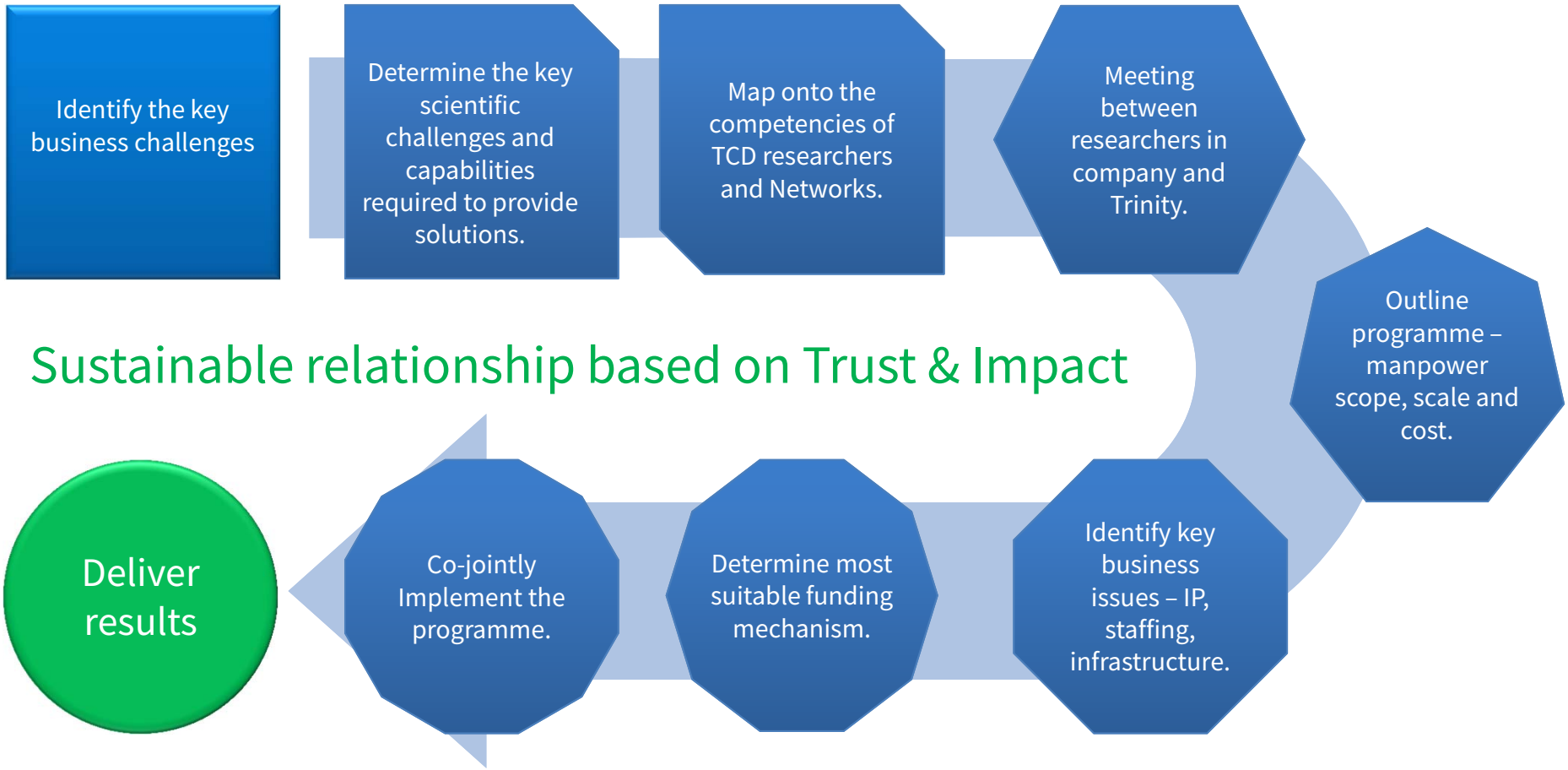

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How to commercialise your research

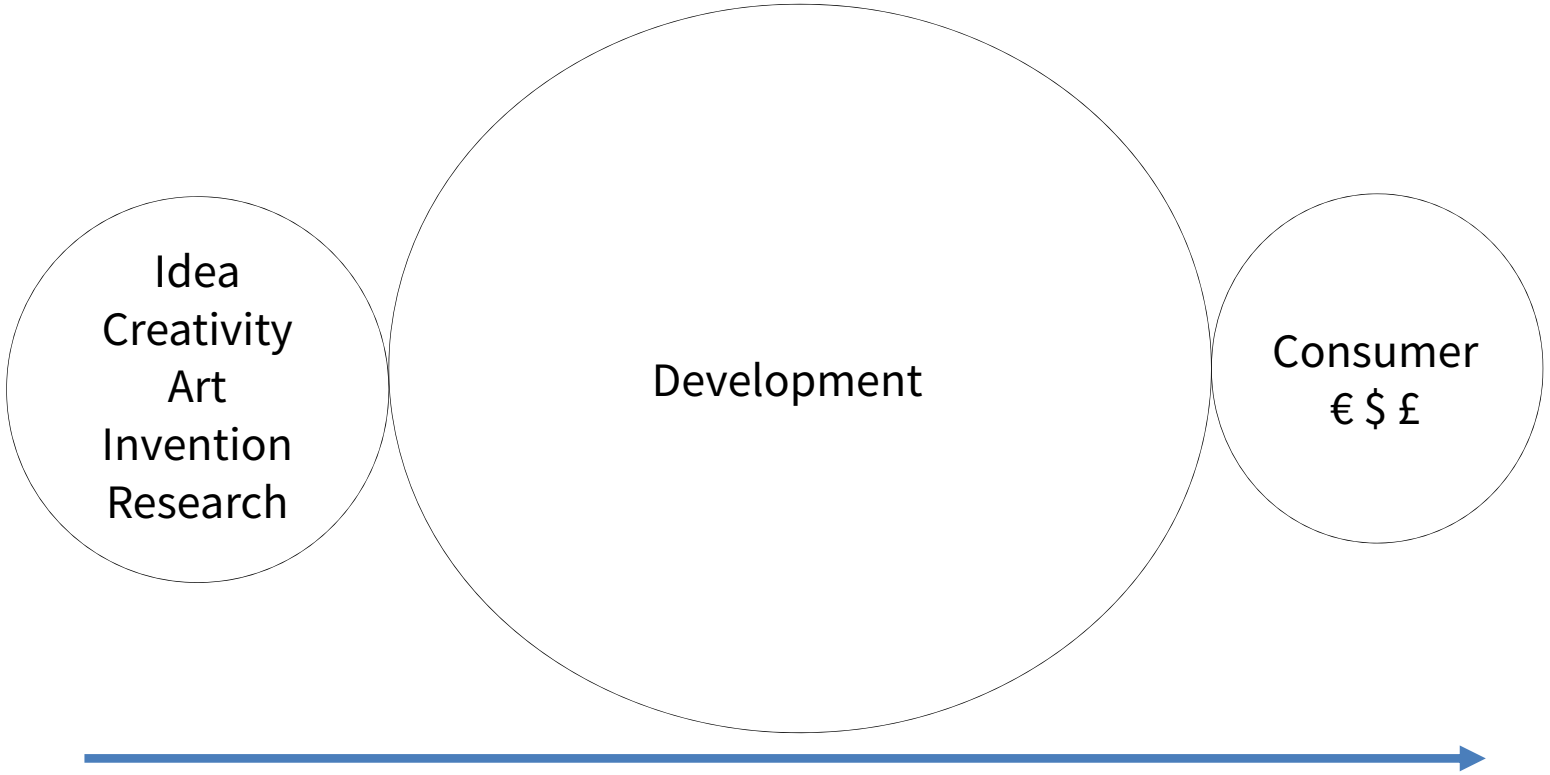
Trinity's partnership with RCSI for Technology Transfer & Industry Engagement

Dr Gordon Elliott
Technology Transfer Case Manager

Commercialising your research

Context – Innovation from health research activity at Trinity

Innovation: The process of doing new things <u>successfully</u>



Commercialising your research

Discuss your research with TR&I Case Manager

Identify Commercial Opportunities

Potential Inventions – Invention Disclosure

Evaluate Invention Disclosure – Patentability + Market Opportunity

Utility – Novelty – Inventive Step

Market need / opportunity

Technology Development Road Map

Commercialising your research

Licence or Licence / Spin-out?

Licence – dissemination of the opportunity to potential partners

Spin-out – discussion with business partners / investors

Commercialising your research

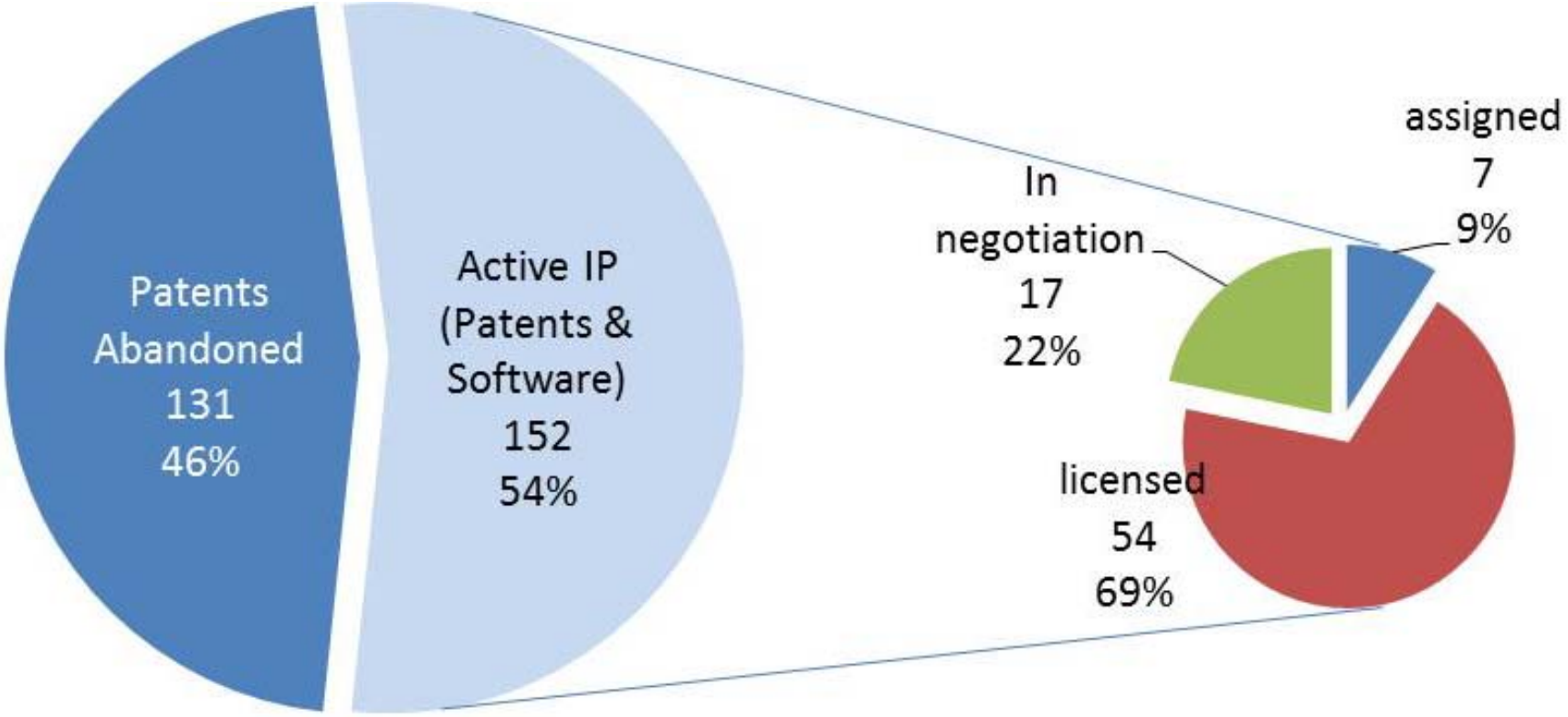
50 – 60 IDFs

20 – 30 Patent Applications

10 to 15 Licenses

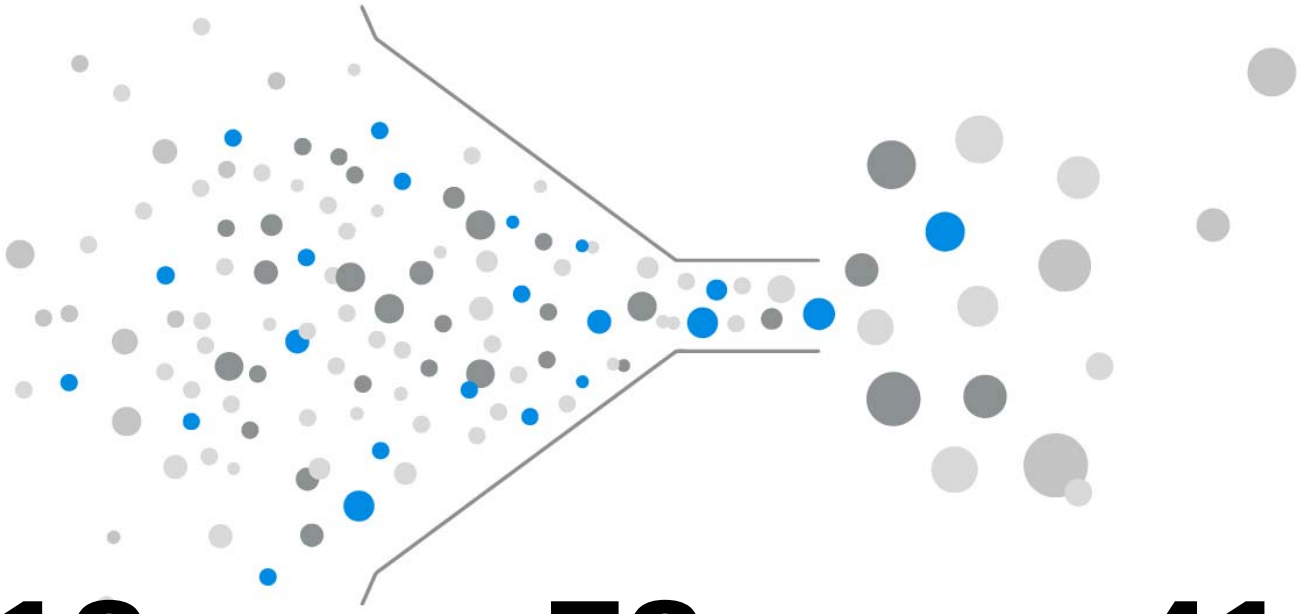
2 to 5 Spin-outs

Commercialising your research



Commercialising your research

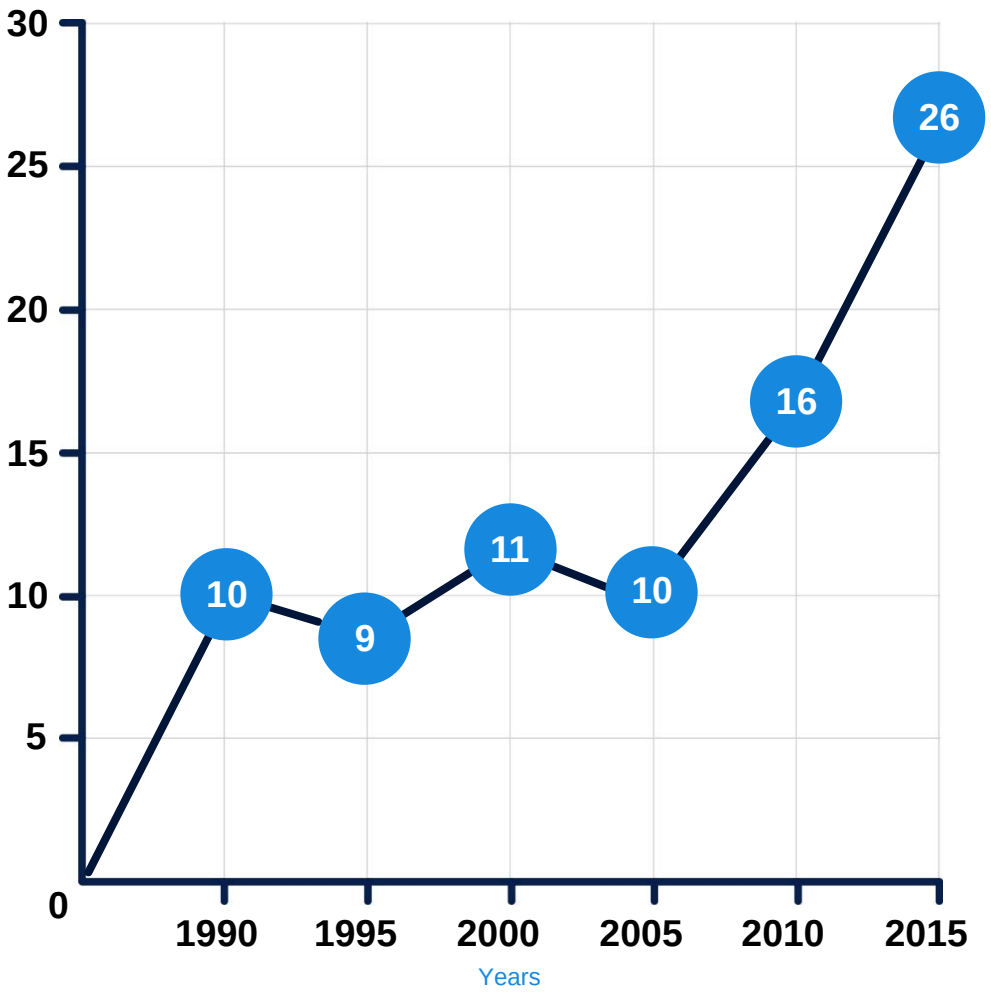
TRINITY'S DEVELOPMENT PIPELINE (2008 – Present)



318 → **78** + **41**

INVENTIONS	LICENCES TO INDUSTRY	CAMPUS COMPANIES

Commercialising your research



Commercialising your research

These 8 Trinity spin-outs / licensees have attracted

a combined total of more than €57.8 million

in venture capital investment in the last 3 years

Commercialising your research

Trinity led a license deal on behalf of multiple institutions to grant a single license to Vitalograph Ltd.

- Prof Richard Reilly, Trinity College and Prof Richard Costello, RCSI and Respiratory Consultant Beaumont Hospital developed an acoustic analysis device which can be integrated into inhalers to provide patient compliance and drug efficacy data in major respiratory diseases.

- Vitalograph Ltd, who are based in Ennis Co. Clare, are currently engaged in developing a series of new products for their clinical trials group based on this technology

Vitalograph® Your respiratory partner 1963-2013 50th ANNIVERSARY

Trinity's partnership with Royal College of Surgeons

Technology Transfer & Industry Engagement

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RCSI
ROYAL COLLEGE OF SURGEONS IN IRELAND
COLÁISTE RÍOGA NA MÁINLEÁ IN ÉIRINN

Consortium Operational activities

Developing best practice:

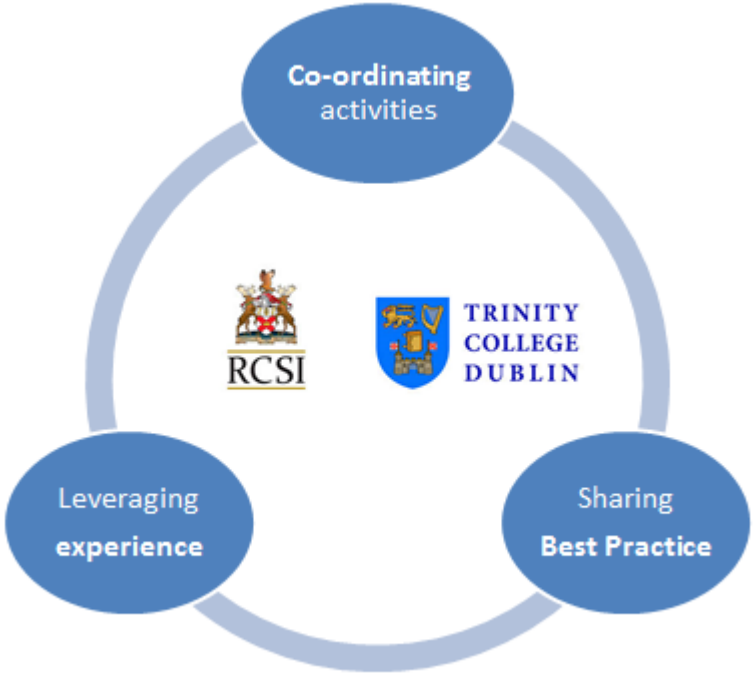
- New opportunity identification and assessment
- Campus company development
- Industry collaboration agreements, IP Commercialisation agreements and campus company related agreements
- Marketing of IP, researcher expertise and infrastructure
- Continuous improvement

Co-ordinating Activities:

- Entrepreneur and investor engagement
- Research and Staff training
- Industry engagement

Leveraging Experience:

- Transactional advice
- Research and Staff training
- Industry engagement



Trinity RCSI Technology Transfer Consortium

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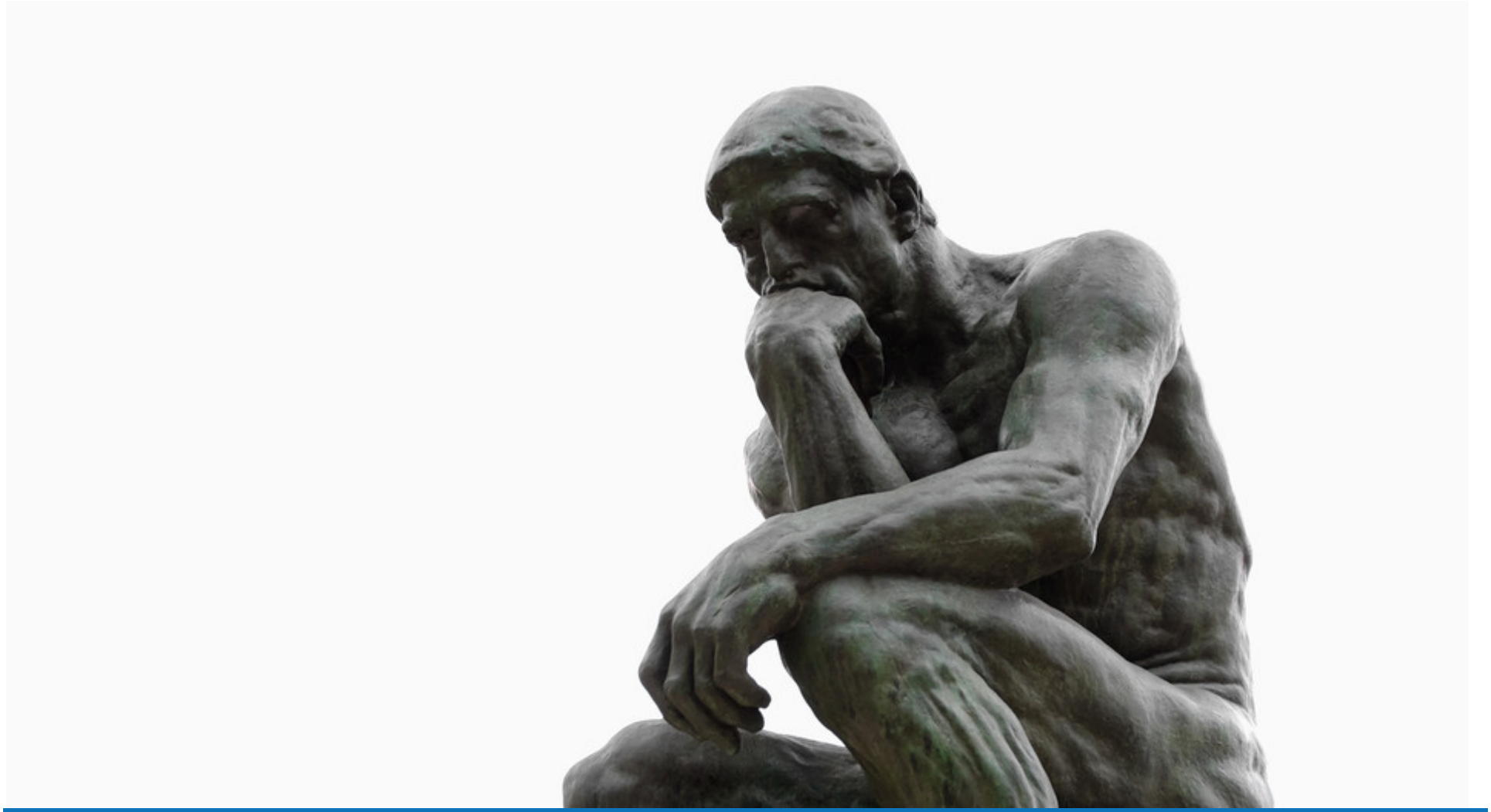
Commercialising Research though a Spin Out Company

From Idea to Campus Company

Fionnuala Healy
Startup Development Manager

Eureka!

What happens after the moment of innovation …



What makes an idea a commercially viable proposition?

The 3 pillars of any successful startup

- Idea/Innovation
- Team
- Product Market Fit

What makes an idea a commercially viable proposition?

The 3 pillars of any successful startup: Idea/Innovation

What makes an idea a commercially viable proposition?

The 3 pillars of any successful startup: Team

What makes an idea a commercially viable proposition?

The 3 pillars of any successful startup: Product Market Fit

Trinity Innovation Model

Commercialisation Through Campus Companies

- Pre-Idea
  - **Opportunity**
  - **Innovation**
  - **Feasibility**
  - **Preformation Commercialisation**
  - **Campus Company Creation**
- Business As Usual

Keep In Touch!

Getting to ‘Investor Ready Status’

- It’s never too early to talk to OCKPE!
- Innovation Awards
- Building Your Company through support at all stages of innovation
- Trinity Starts Newsletter
- @trinityresearch
- fionnuala.healy@tcd.ie
- @fionnualahealy
- https://ie.linkedin.com/in/fhealy

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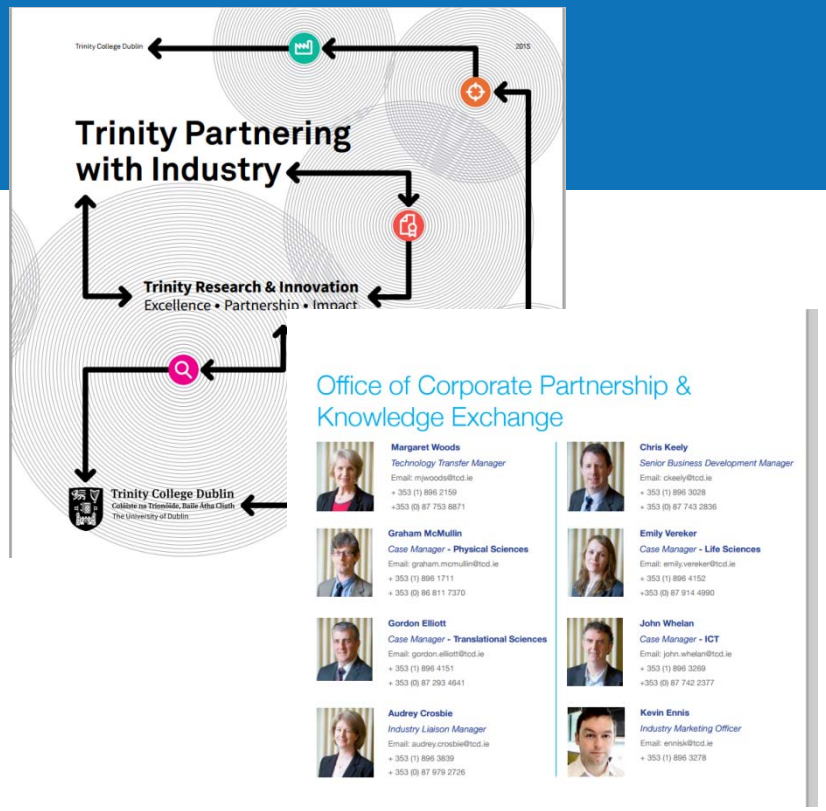

Contacts

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