

StrongNet Programme 30 April - 2nd May 2013

Commercialisation and Entrepreneurship

Managing a Research Career

Leveraging Research Skills

Research is often the starting point for a journey that leads people down the road of innovation. If people are very good at their chosen discipline, they are more inclined to stay in the research world. However, researchers don't always have the choice to stay in academic research, as there are limited career opportunities within the third level sector.

The goal of this three-day workshop is explore with mathematics students the various career options open to them, including that of entrepreneurship. Therefore, this workshop is intended:

- 1) to guide graduate students on the career options available to them, managing a research career, scientific communication, preparing grant applications and a guide to funding and mobility.
- 2) to expose mathematics postgraduate students to the possibility of starting their own businesses, based on their research. This will enable you to understand the path taken by those who join a team taking a project from discovery/idea to product sales in the marketplace within a new venture.

Entrepreneurship Module: Day 1 and 2

This will be a hands-on workshop where students will work in teams. They will be given an idea/technology by the organisers. Each team will come up with a 10-15 minute presentation which will be presented to a panel of judges representing venture capitalists, entrepreneurs, technology transfer office. Additionally, seasoned entrepreneurs will share their personal experiences with the students, their successes and failures. There will also be other talks throughout the three days to add depth and personal experiences

The desired outcome is that students will feel they were involved in a very valuable experience which will open their eyes to the opportunities that can be created by the specialists themselves, possibly within teams. Whilst not everyone will end up starting a company, it is envisaged that this type of activity will broaden their perspective in terms of opportunities for mathematicians.

Career Planning and Research Module : Day 3

This Module will focus providing students with career options upon graduation. There will be discussions with careers staff and industry partners. Particular emphasis will be on research practice, managing a research career and scientific publications. Also included will be talks on preparing grant applications and a guide to funding and mobility.

Managing a Research Career

Mathematicians Creating New Businesses

Leveraging Research Skills

Course Content

Time	Day 1 - Mathematicians Creating New Businesses - leveraging Research skills	Delivered/Facilitated by
9.00 am	Introduction Learning Outcomes	Professor Sinead Ryan, School of Mathematics Professor Eoin O'Neill, Adjunct Professor, TCD School of Business
9.15 am	Entrepreneur's Story	Dr John McKeon, Serial Entrepreneur
9.45 am	Teams and Assignments Introduction to the problems students will be working on. Discuss how students will add to the project on the basis of the knowledge they accumulate from the various talks/discussions. What will be expected of them and how to present the material to the judging panel	EPON/BN We may put them in teams in advance of the programme so that they know in advance what they will be working on
11.00	Coffee Break	
11.15 am	Communications/Presentation Skills The workshop will focus on communication skills and telling the story of what the idea is to people who are not from the same scientific background, such as customers, venture capitalists, bankers, etc. Prof. Tom Byers of Stanford in his textbook on new Technology Ventures emphasises the preparation that the entrepreneur must make to " <i>know how to communicate the new venture</i> ".	Andrew Keogh, Aristo
11.45 - 1.00	Business Planning Process Guidance on the steps to be taken in creating a Business Plan	Brian O'Kane, Oaktree Press
1-2pm	Lunch - in-house	
2.00 pm	Value Proposition/Opportunity Recognition This session will take participants through the process of identifying where the value is in their idea and if it is worth developing further. Talk about the competition	Vincent Browne, Founder and CEO, Flint Telecoms
3.00	Teams work with Mentors on their projects	Teams/Mentors

pm		
4.00 pm	Coffee break	
4.00	Intellectual Property Having something to sell - Importance of IP to the success of both new ventures and to knowledge corporations	Cronan McNamara, Creme Software MJW/EPON
4.30	Market Analysis Provide insight into the importance of carrying out an analysis of the market they will operate in, prior to committing time and resources to any new venture. This workshop will also take participants through the process of how to analyse the market.	To be confirmed
5.30	Review and reflection	

	Day 2 - Mathematicians Creating New Businesses - leveraging Research skills	Delivered/Facilitated by
9.00 am	Pitching Skills How to pitch to Panel. Ability to convince and persuade	Andrew Keogh, Aristo
9.45 am	Work with Teams and Mentors and discuss problems	EPON/BN/Mentors
10.30	Coffee Break Guest Entrepreneur - What is it like to be part of a start-up - Challenges and Issues - understanding the perspective of person on the other side of the table - appeal to them.	
11.00	What is a company? Legal issues, company issues, finding the financial and other resources	Ms Ciara Leonard, NovaUCD
12.00	Work on Pitches	Andrew Keogh, Aristo
1.00	Lunch - In-house	
2.00 pm 4.30 pm	Team Pitches to Panel of Judges	
5.00	Review and Feedback	
7.00 pm	Dinner - Guest Speaker: Encouragement to Entrepreneurship	Professor Igor Shvets, Serial Entrepreneur and Professor in School of Physics (to be confirmed)
	Day 3 - Career Planning, Managing a	Delivered/Facilitated

	Research Career	by
9.00 am	Introduction to Career Planning, Managing a Research Career, Opportunities for Graduates	Careers Advisory Service
10.00	Leading Edge Business Research Manager employing mathematically skilled Researchers. Managing a large research corporation and a research career	Dr Jim Sexton, IBM - to be confirmed
10.45 am	Coffee Break - Sean Bay, CTO of Glanta Ltd.	
11.15 am	Writing Reports for Impact (with a view to next round of funding)	Speaker from SFI to be confirmed
11.30 am	Preparing Grant applications and guide to funding and mobility	Dr Oonagh Kinsman, Trinity Research & Innovation
12.30 pm	Lunch - in-house	
1.30 pm - 3.30 pm	Ideas for Research versus Ideas for market - what is the difference Short introduction by each person and then panel discussion	Brendan Cannon, Corporate Affairs Manager, Intel (to be confirmed) Mark Ryan, CEO, Accenture (confirmed) IBM - Rory Caren, IDR Marketing Leader
3.30 pm	Coffee Break -	
3.45 pm	Recognition Metrics In your career how do you build up your profile for academic, institutional or applied research?	Professor Sinead Ryan/Diarmuid O'Brien, CRANN
4.30 pm	Conclusion	