



INNOVATION COMMERCIAL PROFILE **DIT'S** HOTHOUSE

Where science meets business

Since 2001 **DIT's** Hothouse has created 179 sustainable businesses, attracted over €90m in equity investment and generated 1,055 jobs

THE DUBLIN **Institute of Technology (DIT)** is regularly cited among the top 3 per cent of higher education

institutions globally for research and innovation and its citations in science and engineering regularly put it in the top three of all third-level institutions in Ireland.

Some 54 PhD students graduated from **DIT** in 2010; research funding in excess of €23 million was secured in 2010 and in 2011, **DIT's** Hothouse support programme for technology based start-ups was responsible for 17 out of 89 commercial licences and assignments by Higher Education Institutes in Ireland. This is 19 per cent of total academic research commercialisation activity in Ireland.

Since its establishment in 2001, the **DIT's** Hothouse has generated 179 sustainable businesses, attracting over €90 million in equity investment and generating 1,055 new knowledge intensive jobs in the process.

Furthermore, in December 2011, Hothouse graduate company and mobile multimedia specialist Movidius was awarded the *Red Herring* 100 Global Award, given to the top 100 most exciting and promising private technology companies from North America, Europe and Asia.

Last month fellow Hothouse graduate Profitero, which makes pricing intelligence software, was named IBM Global Entrepreneur of the Year.

"We have worked very hard over the past number of years to increase our research output," says Prof Thomas Cooney of **DIT's** college of business. "We are now recognised as a serious player in research and we would be top of the institutes of technology in terms of the number of publications we produce.

"However, when citations are taken into account, we are at

number three of all higher education institutes in Ireland – this shows that the impact of our research is actually greater than its volume."

A direct result of this success has been a 35 per cent increase in research funding attracted by **DIT** in recent years. According to communications officer Donal O'Malley, "cross-faculty collaboration is one of the reasons for our success. The college of business feeds into all of the different faculties and we avoid the silo effect that you might find in some of the more traditional higher education institutes.

"For example, we have a masters in business and entrepreneurship which is geared towards science, engineering and technology graduates. We also have an undergraduate degree in product design which involves a collaboration between the college of business and the faculties of engineering and arts, tourism and design."

Andy Gray, senior licensing executive with Hothouse, says: "People may laugh when we talk about being similar to MIT but we are about the same thing – applied technology. The kind of research we do is closer to the market and less blue skies than you might find in other institutions and that gives us an advantage."

Relationships with the business community are also important.

"We are very commercially focused and we make sure we have clear communications with our industry partners," Gray adds. "Companies keep coming back to us for further projects on the basis of their previous experience."

In common with most other higher education institutions commercialisation of **DIT** research takes a number of forms. The typical commercialisation routes are licensing technology to industry partners, starting up spin-out companies, and working with so-called spin-in companies

in the Hothouse programme, which end up working with **DIT** researchers.

"We have a number of exciting spin-outs at the moment," Gray says. "One of these is Warmer Edge which uses novel technology to store energy from a home's hot water heating system and releases it as and when it is needed.

"In terms of licensing research, Prof Fiona Lyng won Enterprise Ireland's One to Watch Award in 2011 for a very exciting new diagnosis system for cervical cancer which is about to be licensed to a new Irish start-up company."

The spin-out process begins with the identification of research with commercial application. "Sometimes the researchers don't realise what they have because they are so immersed in the work or because they may not be particularly interested in commercial outcomes. We then work with them to protect the intellectual property and to commercialise it.

"This might be through a spin-out company or licensing it to an existing company. Our emphasis is on helping Irish companies grow and create jobs so we will generally try to licence technologies to young Irish companies."

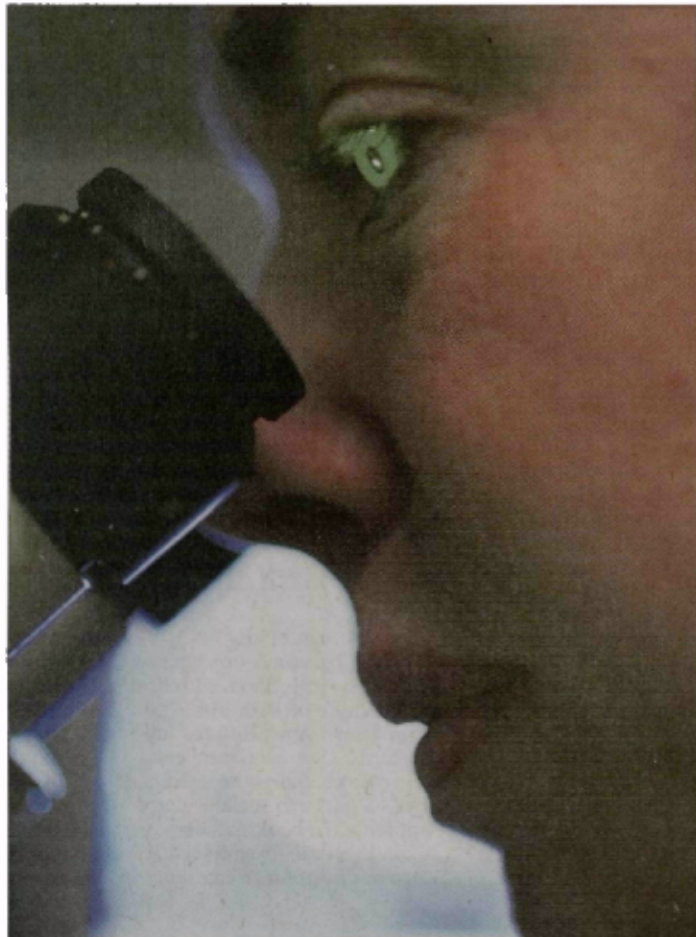
A further reason for **DIT's** strong track record in research commercialisation is the institute's approach to IP ownership. In many higher education institutes IP ownership rests with the institute if it has been developed by staff or students on research grants. In **DIT**, however, the rules are not so hard and fast and staff and students may in some cases own the IP created by their research.

Spin-in companies participating in the Hothouse programme also benefit from **DIT's** research infrastructure. "Hothouse companies have visibility of all research being carried out in

DIT,” Prof Cooney says. “We try to connect the dots where we identify potential collaborations between researchers and Hothouse companies.”

Looking to the future Cooney believes that **DIT** is very strongly positioned to offer the new Industrial PhD programme currently being discussed by the Higher Education Authority. “This is a structured PhD which will include funding for work-based study and I believe our commercial focus means that we are particularly well placed to avail of that scheme.”

DIT is holding a research and innovation showcase on June 19th to highlight its industry-focused research strengths in science, technology and engineering



DIT'S Prof Fiona Lyng won Enterprise Ireland's One to Watch Award in 2011 for a new diagnosis system for cervical cancer which is about to be licensed to a new Irish start-up company. Photograph: Frank Miller