Quality Review of the Commercialisation Office

13 – 14 April 2010

Peer Review Report

This Report, prepared for Enterprise Ireland by reviewers listed on page 6, was accepted as a Peer Review Report by the NUI Maynooth Quality Promotion Sub-Committee at a meeting on 20 May 2011.

REVIEW OF CONTRACT

TECHNOLOGY TRANSFER STRENGTHENING INITIATIVE

National University of Ireland, Maynooth

13th & 14th April 2010

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REVIEW PROCESS

Introduction

Following the publication by the Irish Government of the Strategy for Science, Technology and Innovation in early 2006, Enterprise Ireland introduced the Technology Transfer Strengthening Initiative (TTSI) through which EI provides funding to individual Higher Education Institutes (HEIs) to resource their Technology Transfer Offices and functions. Contracts with 10 HEIs were put in place for 5 year periods of support, each of which have a requirement to undergo a midterm review in order to determine individual HEI performance under the contract. These midterm reviews are intended to bring to the fore any observations and recommendations for the individual HEIs on the original objectives and metrics on which the contracts are based.

Between August 2007 and June 2008 contracts were concluded between Enterprise Ireland and the following HEIs:
University College Dublin, University College Cork, Trinity College Dublin, Dublin City University, National University of Ireland Galway, National University of Ireland Maynooth, Royal College of Surgeons in Ireland, Dublin Institute of Technology, Waterford Institute of Technology and University of Limerick.

Each of these HEIs have reported to EI as required under the contract the metrics and other data including annual reports for 2008 and 2009.

In June 2009, Enterprise Ireland conducted with the assistance of external reviewers a Technology Transfer system review which focussed on the development of the national system in Ireland since the commencement of support under the TTSI programme. The report from this 2009 overall review provides recent context for the 2010 individual TTSI contract reviews.

Terms of Reference

A short 'Terms of Reference' for the reviews was documented (Appendix 1), which described for the reviewers the review outcome requirement, the methodology to be followed, timeframe and other administrative details. The objectives of the review were stated to be the following:
- Enhance the impact of the TTSI programme through the individual and combined activities at the HEIs.
- Develop recommendations for further developments of the current programme and to guide similar programmes in the future.
- Provide an analysis with respect to the use of project funds at each HEI for a determination of value for money and overall accountability.
- Draw key lessons to contribute to organizational learning, both for funding agency, DETE, other stakeholders and for each individual HEI.

Methodology

Enterprise Ireland engaged the assistance of a number of external international peer reviewers to assist with the reviews (Appendix 2). Each reviewer is currently or has been a Director of Technology Transfer in an international University or major Research Institute e.g. Cornell, Oxford, Cambridge, Chicago, London.
For each review, a panel was assembled consisting of at least two external reviewers along with an EI Manager involved with commercialisation of research. Both IDA and SFI were invited to participate on the panels and SFI were involved

in 3 of the 9 reviews conducted. IDA made a written submission in advance of the reviews but did not participate on the panels.

The majority of reviews were scheduled over a two week period beginning 12th April 2010, with the final review conducted on 15th and 16th June 2010.

Each review consisted of an extensive set of briefing material supplied to the Panellists approximately two weeks in advance of a site visit (Appendix 3). Each site visit was scheduled for a day and a half with sessions built in to give initial feedback and also for the external reviewers to meet with the TTO staff and people the TTO had done business with (i.e. a researcher from the HEI, a licensee, a promoter of a spin-out).

A standard agenda format was followed – (Appendix 4) at each HEI to ensure the reviews were approached in the same manner and that all sections were covered at each TTO. Guidelines on standard and level of information required for each section of the agenda were supplied to each TTO in advance in order to prepare material and presentations (Appendix 5).

Findings and Recommendations

The findings for each HEI are specific to them and based on the presentations and discussions with the Panel during the course of the site visit and also on the material provided in advance. The findings will be presented following the headings used for the agenda of the Panel visit and recommendations will be grouped together for clarity.

NATIONAL UNIVERSITY OF IRELAND, MAYNOOTH (NUIM) REVIEW SUMMARY

The TTSI contract with National University of Ireland, Maynooth was signed on the 24th September 2007 and provides support to employ two staff in the Commercialisation Office. The value of the support is estimated to be €1.1 million for the duration of the contract.

The targets for metrics set by NUIM at the start of the contract are shown below with achievements to date:

NUIM	2007 target	2007 actual	2008 target	2008 actual	2009 target	2009 actual	2010 target	2011 target
Disclosures	11	13	12	24	13	19	14	15
LOAs*	1	3	1	6	2	8	2	2
Spin-outs	1	0	1	1	1	3	2	2
Patents filed	8	8	9	14	10	7	10	11

*LOAs= Licences, Options exercised, Assignments

The review at NUIM was conducted on the 13th and 14th April 2010.

The Review Team for NUIM consisted of:
- Lesley Millar, Director, Office of Technology Management at the University of Illinois, at Urbana-Champaign (Day 1 only), USA
- Derek Waddell, Director of Research and Commercialisation, University of Edinburgh, UK
- Richard Jennings, Director of Technology Transfer and Consultancy Services, Cambridge Enterprise, UK
- Jim Lawler, Director of Industrial Technologies Commercialisation Programme, Enterprise Ireland
- Peter O'Fegan, Review Panel Facilitator, Technology Exploitation Networks, Enterprise Ireland.

NUIM Attendees:
- Raymond O'Neill, Vice-President for Research (attended first half day 1, met the Panel at the end of day 1, available at all times during review)
- John Scanlan, Director, Commercialisation Office
- Owen Laverty, Commercialisation Executive ICT
- Paul Tyndall, Commercialisation Executive Lifesciences
- Siobhan Dixon, Executive Assistant, Commercialisation Office.

All members of the Commercialisation Office Team were present for day one of the review.

GENERAL SUMMARY OF REVIEW FINDINGS AND RECOMMENDATIONS

The Panel were impressed by the quality of the staff in the NUIM Commercialisation Office, by the outputs they have achieved to date and by the current pipeline of opportunities. The group have made good use of the funds that have been made available from both NUIM and Enterprise Ireland and have met, and in some cases exceeded, the targets set in their business plan. The Commercialisation Office should ensure that they have a balanced consideration for all possible routes to commercialisation.

The team are currently stretched across a high number of projects and their future sustainability is naturally causing some concern. This is an issue that needs to be addressed to maintain the team structure, high output levels and focus.

TABLE OF RECOMMENDATIONS

Area	Recommendation
Management Responsibility/ Authority of the Office	1. The quality and energetic approach to projects shown by the Commercialisation Office was impressive but it was unclear how much was strategic, or how much was tactical, and reflected the Commercialisation Office's drive for company creations rather than servicing the needs of NUIM overall. It would be beneficial if the University in conjunction with the Commercialisation Office fully addressed its strategic approach to knowledge transfer in general.
	2. It is important that there be clear communication of responsibilities, and in particular no mismatch between what Commercialisation Office thinks that NUIM wants them to do, and what NUIM actually want them to do. Creating a Service Level Agreement between the two parties, which should be addressed during 2010, would help rectify this.
	Note: The Vice-President for Research advised that NUIM should be able to be more specific about what they required from the Commercialisation Office in the next few months. He confirmed that the University envisaged an evolving role in which the Commercialisation Office dealt with the broad range of research contracts and industrial liaison in addition to the focus on spin-outs and commercialisation. The Panel noted that if this happens additional resources will be required from NUIM.
	3. The fact that deal signature authority resides with the Vice-President for Research should be addressed. The Director of the Commercialisation Office should have signature authority delegated to him (but not for deals negotiated by him).
	4. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification.
	5. The Commercialisation Office would benefit from having an Advisory Board with senior University/Faculty representatives and external representatives. This Board should be set up immediately.
	6. The University needs to demonstrate at a practical and financial level its support for the continuous sustainability of the Commercialisation Office, so that resources, processes

	and procedures are adequate to ensure that its current level of success can be scaled up. 7. There would be a benefit in a more structured schedule of reporting of TT activities internally to ensure that the faculties as well as University Management are more fully aware of the broad range of the Commercialisation Office activities, and to ensure that there is the required continuous level of information flow in both directions.
Intellectual Property Policy	1. The University needs a robust Conflict of Interest Policy. This should be developed immediately with an associated Conflict of Interest Policy Management Plan. The lack of Conflict of Interest Policies across the sector was highlighted in the 2009 TTSI programme review. 2. The issue of the Commercialisation Office staff taking directorships on boards of spin-out companies needs to be reviewed and managed, as it can lead to conflicts of interest and conflicts of commitment between responsibilities to the companies and responsibilities to the Commercialisation Office. 3. The IP Policy should provide a facility for Commercialisation Office to recover its IP costs where it drops a patent, and on reversion to the inventor(s), the inventor(s) subsequently makes a financial return on the patent. 4. The IP Policy needs to state a default position (e.g. that multiple inventors/departments will have equal shares of royalty income) unless otherwise advised in writing by the inventors/departments. 5. IP Policy should clearly outline the criteria for an individual who wishes to take a licence to a technology/create a spin-out. These criteria should include the necessary business and technical acumen to give the enterprise/technology the best chance of commercial success. 6. NUIM need to enact a schedule of IP Policy review, the policy should be reviewed at least on a biannual basis. 7. The University need to actively raise the awareness of all its academics in regard to the University's Commercialisation Policy and be proactively supported by the Senior Management.
Operations, Processes and Procedures	1. NUIM and the Commercialisation Office need to ensure that academics when in discussions with companies are fully informed of the University IP Policy and the role of the Commercialisation Office in managing the commercialisation process. 2. The Commercialisation Office needs to develop/present a variety of route to market options when discussion commercialisation opportunities with academics and PI's. 3. The Commercialisation Office needs to reinforce the need for, and support academics in doing, extensive patent landscape work prior to seeking patent funding. 4. NUIM should explore with the Commercialisation Office how they could systemise the tracking and management of consultancy agreements between University staff and industry.

	5. The Commercialisation Office in conjunction with the Finance Office needs to have a robust system in place to manage receipts of royalty payments, reminders, interest due timelines, etc. 6. MyIP needs to be further integrated with the electronic data management system of the office to ensure that pre-disclosure activity is fully captured. 7. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification. The Research Office would benefit from developing its own, separate level of competency in IP agreements.
Indicators and Reporting/ Metrics	1. The Commercialisation Office should measure its PCT filing rate as a good measure of patent activity. 2. The Commercialisation Office should establish a broader range of metrics which demonstrates the range of services provided by the office and which can easily be used for a variety of internal and external reporting purposes. It should strive to tell the story of the "non-traditional" "non patentable" IP as this volume of work needs to be captured in some way. 3. Definition of spin-outs (HPSU) might actually be too restrictive and unrepresentative of actual company formation activities. The Commercialisation Office should report all spin-outs as well as all start-ups. 4. The Commercialisation Office should use all opportunities to report commercialisation activities and publish a Commercialisation Office annual report, with an associated reporting of departmental metrics to department heads. This would help further engender a commercialisation culture in the institution 5. The Commercialisation Office should capture all their licensing income and industry collaboration money as a metric which may provide a useful justification to the University for additional Commercialisation Office resources.
Level of Service: Researchers, Industry, External Agencies	1. A spin-out company handbook for researchers should be produced as soon as possible, preferably in the current year. 2. Continue to do internal staff, student and industry surveys on the performance of the Commercialisation Office (every 2-3 years); publish the results. 3. In promoting commercialisation across the campus, the emphasis on start-up creation should be balanced by a greater consideration for all possible routes to market for the technologies they deal with. 4. Related to expanding the focus of activities to external entities - the office should ensure that its focus is on faculty and internal stakeholders. The organisation is relatively young and still has many opportunities within NUIM and can still optimise its system and processes.
Communications and Promotions	1. The Commercialisation Office has makes good use of resources to promote is capabilities and resources internally to the science & engineering faculty but needs also to concentrate on the wider University community.

	2. The office requires an additional skill set in the form of marketing expertise and the Panel recommended that the Office should consider using student interns to assist with their internal and external marketing effort.
	3. The Panel recommend that the Commercialisation Office web page should be revamped taking into account the necessary architecture and content that is required to make it search engine friendly, e.g. take account of the new Google system etc.
	4. The Commercialisation Office needs to be smarter in the use of electronic media for marketing.
	5. The marketing of technologies via the University website needs to be reviewed.
	6. The Commercialisation Office should issue regular reports on all key metrics to senior NUIM staff in faculties as well as NUIM management, to promote the full extent of the work that is actually being done by the office.
	7. All externally facing promotional material should be redesigned by using industry friendly language that is easily understood in the business environment. If necessary they should use of some of their business mentor panel to assist them in this task.
	8. The Commercialisation Office should consider using new social networking sites, e.g. YouTube to increase the effective penetration of its commercial opportunities into the business world.
	9. The Commercialisation Office should promote the societal benefits of its activities to the broader community, e.g. the Beemune project.
Resources and Staffing	1. The Panel question whether there is adequate recognition and sufficient financial support for the Commercialisation Office within NUIM, the University should demonstrate its commitment in a concrete manner, i.e. substantially more funding for the office.
	2. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification as this work has a resource requirement.
	3. The Commercialisation Office should investigate fee reductions with legal service providers and/or discuss collaborating with other University TTO to get reduced fees for similar services.

MANAGEMENT RESPONSIBILITY/AUTHORITY OF THE OFFICE

In NUIM the Commercialisation of Research is the responsibility of the University Commercialisation Office, under the directorship of John Scanlan. The Director reports to the VP for Research and sits on number of relevant committees in NUIM. There is good visibility of the Commercialisation Office activities to the University management hierarchy, including a quarterly report system. The Commercialisation Office at NUIM is one of the newer offices in the sector has obviously benefited from a greenfield start.

Findings:

- There is a very good experienced and committed team of Technology Transfer professionals in place who have built good and fruitful relationships with PIs, and academics with whom they interact closely to identify, protect and ultimately commercialise IP.
- Overall it was evident that the Director of the Commercialisation Office gives the team members a lot of autonomy in all aspects of the commercialisation process while still remaining fully *au fait* with the daily happenings of the office.
- The presence of the Vice-President for Research was seen as positive and provided a strong message of the wider institutional support for the Commercialisation Office.
- There is evidently a good relationship between the Office of the Vice-President for Research and the Commercialisation Office.

Recommendations:

1. The quality and energetic approach to projects shown by the Commercialisation Office was impressive but it was unclear how much was strategic, or how much was tactical, and reflected the Commercialisation Office's drive for company creations rather than servicing the needs of NUIM overall. It would be beneficial if the University in conjunction with the Commercialisation Office fully addressed its strategic approach to knowledge transfer in general.

2. It is important that there be clear communication of responsibilities, and in particular no mismatch between what Commercialisation Office thinks that NUIM wants them to do, and what NUIM actually want them to do. Creating a Service Level Agreement between the two parties, which should be addressed during 2010, would help rectify this. ***Note:*** the Vice-President for Research *advised that NUIM should be able to be more specific about what they required from the Commercialisation Office in the next few months. He confirmed that the University envisaged an evolving role in which the Commercialisation Office dealt with the broad range of research contracts and industrial liaison in addition to the focus on spin-outs and commercialisation. The Panel noted that if this happens additional resources will be required from NUIM.*

3. The fact that deal signature authority resides with the Vice-President for Research should be addressed. The Director of the Commercialisation Office should have signature authority delegated to him (but not for deals negotiated by him).

4. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification.

5. The Commercialisation Office would benefit from having an Advisory Board with senior University/Faculty representatives and external representatives. This Board should be set up immediately.

6. The University needs to demonstrate at a practical and financial level its support for the continuous sustainability of the Commercialisation Office, so that resources, processes and procedures are adequate to ensure that its current level of success can be scaled up.

7. There would be a benefit in a more structured schedule of reporting of TT activities internally to ensure that the faculties as well as University management are more fully aware of the broad range of the Commercialisation Office activities, and to ensure that there is the required continuous level of information flow in both directions.

INTELLECTUAL PROPERTY POLICY

NUIM has an IP Policy in place since September 2008, and a Campus Company Policy since November 2007, but lacks a Conflict of Interest Policy.

Findings:

- The NUIM IP Policy is scheduled for review every 5 years.
- There is a high level of awareness of the IP Policy across the campus focussed in the Science and Engineering Faculty.
- There are issues associated with creating and managing conflicts of interest, clarification is particularly required on the taking of directorships on the boards of start-ups by the Commercialisation Office staff.
- The IP Policy is ambiguous in regard to royalty taking and cost recovery in some circumstances.
- The University has difficulty in applying IP Policy consistently across different funding or development agency requirements.
- The University is flexible in regard to allowing academics redirect their percentage of licensing income to research funding.

Recommendations:

1. The University needs a robust Conflict of Interest Policy. This should be developed immediately with an associated Conflict of Interest Policy Management Plan. The lack of Conflict of Interest Policies across the sector was highlighted in the 2009 TTSI programme review.

2. The issue of the Commercialisation Office staff taking directorships on boards of spin-out companies needs to be reviewed and managed, as it can lead to conflicts of interest and conflicts of commitment between responsibilities to the companies and responsibilities to the Commercialisation Office.

3. The IP Policy should provide a facility for Commercialisation Office to recover its IP costs where it drops a patent, and on reversion to the inventor(s), the inventor(s) subsequently makes a financial return on the patent.

4. The IP Policy needs to state a default position (e.g. that multiple inventors/departments will have equal shares of royalty income) unless otherwise advised in writing by the inventors/departments.

5. IP Policy should clearly outline the criteria for an individual who wishes to take a licence to a technology/create a spin-out. These criteria should include the necessary business and technical acumen to give the enterprise/technology the best chance of commercial success.

6. NUIM need to enact a schedule of IP Policy review, the policy should be reviewed at least on a biannual basis.

7. The University need to actively raise the awareness of all its academics in regard to the University's Commercialisation Policy and be proactively supported by the Senior Management.

OPERATIONS/PROCESSES & PROCEDURES/DOCUMENTATION/ DEMONSTRATION

As the NUIM Commercialisation Office is one of the newest Commercialisation Offices in the sector, the Director was in the position to create a state of the art documentation set, most of which is freely available on the NUIM Commercialisation Office web site. The office operates under a market driven ethos and strives to achieve management practices normally associated with a commercial/industry environment.

Findings:

- The Commercialisation Office has good processes in place for identification, capturing and protecting IP and work closely with PI's and academics to a level where their commercialisation activity is integrated into the research and project development team.
- The Commercialisation Office has a comprehensive documentation set available to their staff, PI's and academic researchers.
- The team has developed good processes and procedures which it can now use effectively as tools to achieve even more successful outputs.
- The office has a good business mentor system in place and can draw on the assistance of a comprehensive list of mentors as required.
- The office has a master project management template.
- The office has a large portfolio of ongoing projects which are well managed and continuously tracked in a stage gate process.
- The NUIM Commercialisation Office approach is strongly driven by a market informed ethos.
- NUIM does not have an SLA in place re. the service promise from the Commercialisation Office to the University staff and departments.
- The current Commercialisation Office staff act like a team of highly motivated Product Managers in a University environment.
- The opportunity for the Commercialisation Office to formally act as a Business Development Office for academics who wish to transfer knowledge through consultancy has been recognised.

Recommendations:

1. NUIM and the Commercialisation Office need to ensure that academics when in discussions with companies are fully informed of the University IP Policy and the role of the Commercialisation Office in managing the commercialisation process.

2. The Commercialisation Office needs to develop/present a variety of route to market options when discussion commercialisation opportunities with academics and PI's.

3. The Commercialisation Office needs to reinforce the need for, and support academics in doing, extensive patent landscape work prior to seeking patent funding.

4. NUIM should explore with the Commercialisation Office how they could systemise the tracking and management of consultancy agreements between University staff and industry.

5. The Commercialisation Office in conjunction with the Finance Office needs to have a robust system in place to manage receipts of royalty payments, reminders, interest due timelines, etc.

6. MyIP needs to be further integrated with the electronic data management system of the office to ensure that pre-disclosure activity is fully captured.

7. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification. The Research Office would benefit from developing its own, separate level of competency in IP agreements.

INDICATORS AND REPORTING/METRICS

The Panel were impressed by the outputs the NUIM Commercialisation Office have achieved to date and by the current pipeline of opportunities. The group have made good use of the funds that have been made available from Enterprise Ireland and have met many of the objectives set out in the original business plan submitted to EI.

Findings:

- The Commercialisation Office captures a good series of relevant metrics.
- The Commercialisation Office should capitalise more on its success stories within the University.
- The Commercialisation Office reviews, edits and negotiates research contracts with a view to ensuring that the associated IP is kept clean but does not capture this role as a metric.

Recommendations:

1. The Commercialisation Office should measure its PCT filing rate as a good measure of patent activity.

2. The Commercialisation Office should establish a broader range of metrics which demonstrates the range of services provided by the office and which can easily be used for a variety of internal and external reporting purposes. It should strive to tell the story of the "non-traditional" "non patentable" IP as this volume of work needs to be captured in some way.

3. Definition of spin-outs (HPSU) might actually be too restrictive and unrepresentative of actual company formation activities. The Commercialisation Office should report all spin-outs as well as all start-ups.

4. The Commercialisation Office should use all opportunities to report commercialisation activities and publish a Commercialisation Office annual report, with an associated reporting of departmental metrics to department heads. This would help further engender a commercialisation culture in the University.

5. The Commercialisation Office should capture all their licensing income and industry collaboration money as a metric which may provide a useful justification to the University for additional Commercialisation Office resources.

LEVEL OF SERVICE: RESEARCHERS, INDUSTRY AND EXTERNAL AGENCIES

The Commercialisation Office provides a good level of service to its internal and external clients. Their internal university survey showed the Commercialisation Office in a positive light. Feedback from industry partners is also positive. Training of university researchers and academic staff is well organised.

Findings:

- NUIM currently has extensive industrial engagement at all levels and has a strong relationship with Intel, HP etc. They also have a good working relationship with the major funding agencies in Ireland.
- Relationships with industry appear excellent to the point that the Commercialisation Office staff reported being asked (and being excited about) taking on tech transfer activities on behalf of other entities beyond NUIM.
- The Commercialisation Office has recently undertaken an industry users' survey which questioned NUIM associated companies as to the Commercialisation Office's performance. The survey was seen as a useful and proactive way of gauging performance and identifying potential issues.
- The Commercialisation Office has recently undertaken a university survey which questioned academia as to the Commercialisation Office's performance. The survey was seen as a useful and proactive way of gauging performance and identifying potential issues.
- The Panel were pleased to note that NUIM had addressed the recommendation from the 2009 review on surveying internal and external clients.
- The Commercialisation Office finds the EI facilitated TTO meetings useful and more focused since the pre-meeting directors meetings have been instigated.
- The Commercialisation Office provides a very good course (Commercialisation Skills program (GSE2)) for students and staff. The Commercialisation Skills programme is of such high quality that it could be franchised to other third level institutions.

Recommendations:

1. A spin-out company handbook for researchers should be produced as soon as possible, preferably in the current year.

2. Continue to do internal staff, student and industry surveys on the performance of the Commercialisation Office (every 2-3 years); publish the results.

3. In promoting commercialisation across the campus, the emphasis on start-up creation should be balanced by a greater consideration for all possible routes to market for the technologies they deal with.

4. Related to expanding the focus of activities to external entities - the office should ensure that its focus is on faculty and internal stakeholders. The organisation is relatively young and still has many opportunities within NUIM and can still optimise its system and processes.

COMMUNICATIONS AND PROMOTIONS

The NUIM Commercialisation Office has a high profile across science community on the campus. However there is an opportunity to develop the profile with other faculties. It has achieved good press nationally with success stories.

Findings:

- The Commercialisation Office has surveyed NUIM research staff on their satisfaction/awareness of the Commercialisation Office activities.
- The Commercialisation Office is satisfied that they are the primary contact for industry coming onto the campus.
- The Commercialisation Office promotes its activities to the external community and is recognised by industrialists for its clear message.
- The Commercialisation Office's visibility from the University front Web page is high, link to the relevant Commercialisation Office documentation are good.

Recommendations:

1. The Commercialisation Office has makes good use of resources to promote is capabilities and resources internally to the science & engineering faculty but needs also to concentrate on the wider University community.

2. The office requires an additional skill set in the form of marketing expertise and the Panel recommended that the office should consider using student interns to assist with their internal and external marketing effort.

3. The Panel recommend that the Commercialisation Office web page should be revamped taking into account the necessary architecture and content that is required to make it search engine friendly, e.g. take account of the new Google system etc.

4. The Commercialisation Office needs to be smarter in the use of electronic media for marketing.

5. The marketing of technologies via the University website needs to be reviewed.

6. The Commercialisation Office should issue regular reports on all key metrics to senior NUIM staff in faculties as well as NUIM Management, to promote the full extent of the work that is actually being done by the office.

7. All externally facing promotional material should be redesigned by using industry friendly language that is easily understood in the business environment. If necessary they should use of some of their business mentor panel to assist them in this task.

8. The Commercialisation Office should consider using new social networking sites, e.g. YouTube to increase the effective penetration of its commercial opportunities into the business world.

9. The Commercialisation Office should promote the societal benefits of its activities to the broader community, e.g. the Beemune project.

RESOURCES AND STAFFING

The Commercialisation Office has recruited wisely and has an excellent experienced committed team of TT professionals in place who have built good and fruitful relationships with PIs, and academics with whom they work very closely.

Findings:

- The issue of the future sustainability of the Commercialisation Office particularly in relation to the continuance of the TTSI funding past 2012 is of major concern to the Commercialisation Office staff and to the University.
- The Commercialisation Office would welcome a restructuring of the TTSI funding mechanism to allow the office have more autonomy in allocating the granted monies internally.
- The Panel question the capacity of the Commercialisation Office Team at its current resource level to direct/manage the proposed Innovation Centre in addition to existing duties.
- The panel noted that the provision of the Commercialisation Skills Program (GSE2) by the Commercialisation Office is resourced by the University in the form of a contribution of €15k towards salary costs in the office.

Recommendations:

1. The Panel question whether there is adequate recognition and sufficient financial support for the Commercialisation Office within NUIM, the University should demonstrate its commitment in a concrete manner, i.e. substantially more funding for the office.

2. The link with the Research Office and the allocation of respective responsibility for research contracts needs clarification as this work has a resource requirement.

3. The Commercialisation Office should investigate fee reductions with legal service providers and/or discuss collaborating with other University TTO to get reduced fees for similar services.

Appendix 1

REVIEW OF TECHNOLOGY TRANSFER STRENGTHENING INITIATIVE CONTRACTS
TERMS OF REFERENCE

Background

In 2006, EI commenced a 5 year programme to strengthen the Technology Transfer system in Ireland. The objective of the programme is to increase the level and quality of intellectual property (IP) transferred from research in Higher Education Institutions (HEIs) and to facilitate the development of high quality and effective systems and policies to ensure that the IP is identified, protected and transferred, where possible, into companies in Ireland. A call for proposals was issued to the HEIs, and the applications received were evaluated by a panel of experts. This panel made a number of recommendations to EI regarding both how the overall system should be structured given the size and nature of the research system in Ireland, and also individual recommendations for the applicant HEIs.

An interim review of the first part of the panel's recommendations – how the Technology Transfer system has developed since 2006 was conducted in 2009 and the report of this review was made available to a range of stakeholders and to all HEIs involved in the programme.

2010 TTSI contract reviews – objectives

All 10 TTSI contracts between Enterprise Ireland and Irish HEIs will be reviewed in 2010, approximately at the mid-point of 5 year contracts which commenced in 2007. These reviews will be conducted in order to:

- Enhance the impact of the TTSI programme through the individual and combined activities at the HEIs.
- Develop recommendations for further developments of the current programme and to guide similar programmes in the future.
- Provide an analysis with respect to the use of project funds at each HEI for a determination of value for money and overall accountability.
- Draw key lessons to contribute to organizational learning, both for funding agency, Department of Enterprise Trade and Employment, other stakeholders and for each individual HEI.

Outline of process to be employed and timetable

Between 12th - 23rd of April 2010, each individual HEI contracted under the TTSI programme with EI will undergo a review of their contractual performance.

Enterprise Ireland has engaged a number of external reviewers, qualified and experienced in the management and organisation of Technology Transfer Offices. In addition, the review panels will include senior manager(s) of Enterprise Ireland and may include a senior representative from Science Foundation Ireland and the Industrial Development Authority.

Review methodology

- EI will provide general briefing material in advance to the reviewers to set the context and summarise progress to date.
- A site visit to the HEI, meeting with TTO Director, senior HEI management, staff, key clients – both researcher and business, to review systematically progress achieved and issues arising under key agenda headings and will include presentations on different aspects of the TT operations, including demonstration of systems and procedures in use at the TTO. The reviewers will meet the staff of the TTO as well as the

management, and sessions with clients of the TTO - both internal from the researcher community and external from the business community will be included. See Briefing Pack; Folder 1, Document 2. 'TTO Agenda for TTSI Contract Review.doc'.

- Each review will focus on the commitments, milestones and deliverables articulated in the TTSI contract with EI.
- An agenda/template for the site visit will be issued to each institution with pre-review guidelines for preparations and requirements for the conduct of the review in order that each review is conducted in as similar and rigorous a manner as possible. See Briefing Pack; Folder 1, Document 3. 'Guidelines to TTOs for review site visit preparation.doc'.
- Each panel will provide EI with a report of findings and observations and will make recommendations accordingly.
- Panel members will ensure they are available for a short period following the site visits for finalising reports and for any clarification purposes.

Expenses and honorarium

Enterprise Ireland shall pay travel and accommodation expenses associated with the conduct of the review. An honorarium shall also be paid to each external member.

Confidentiality

Members of the review team shall enter into a standard confidentiality agreement with Enterprise Ireland.

Appendix 2

INTERNATIONAL MEMBERS OF REVIEW PANEL

Alison Campbell, Managing Director of King's College London Business Ltd

David Craddock, Director of Enterprise and Collaborative Projects at Aberystwyth University

Tom Hockaday, Managing Director, Isis Innovation Ltd, University of Oxford

Richard Jennings, Director of Technology Transfer and Consultancy Services, Cambridge Enterprise

Brian Kelly, Director, Cornell Center for Technology, Enterprise and Commercialization, Weill Medical College of Cornell University, New York

Anne Lane, Executive Director of UCL Business PLC, University College London

Lesley Millar, Director of the Office of Technology Management (OTM) at the University of Illinois at Urbana-Champaign

Tom O'Toole, President of Global Biotechnology Solutions, former Deputy Director, Technology Transfer Office, Centre for Disease Control (CDC), Atlanta

Derek Waddell, Director of Research and Commercialisation, University of Edinburgh

Appendix 3

BRIEFING PACK PREPARED FOR REVIEW PANEL — TTSI CONTRACT REVIEW

List of files:

1. EI Briefing Material:
   - TTSI Review Terms of Reference
   - TTO agenda for TTSI Contract Review
   - Guidelines to TTOs for review site visit preparation
   - Schedule of TTO review meetings
   - TTSI Summary presentation

2. Contracts:
   - Team 1: Grant Agreement NUIM and Grant Agreement UL
   - Team 2: Grant Agreement TCD and Grant Agreement UCC
   - Team 3: Grant Agreement RCSI, Grant Agreement NUIG and Supplemental Agreement NUIG
   - Team 4: Grant Agreement DCU and Grant Agreement DIT
   - Team 5: Grant Agreement UCD and Grant Agreement WIT
   - Starting date of contracts

3. Operational Costs Model:
   - TTO operational costs model document
   - Template Financial Claim operational costs & staffing costs
   - Letter re. Patent Funding 2010

4. Organisation Structure:
   - TTO Organisation structures and contact details

5. Metrics:
   - Sample metrics gathering template
   - Guidelines on completing metrics template
   - Overview Metrics statistics 2006 to 2009 all institutes
   - Slides on TTSI metrics 2007 and 2009

6. Training Programme:
   - Overview of Training Programmes

7. TT Group:
   - Terms of Ref for Technology Transfer Directors Meetings
   - Sample agenda for TTO Directors Meeting (Meeting No. 12 – January 2010)
   - Example Summary Note on TTO Directors Meeting (Jan 2010)
   - Schedule of TT Group Meetings

8. Communications:
   - Overview of Communications
   - TTSI Brochure – title: 'The Business of Research'

9. Annual Reports:
   - Annual reports 2008 from DCU, DIT, NUIG, NUIM, RCSI, TCD, UCC, UCD, UL, WIT
   - Annual reports 2009 from DCU, DIT, NUIG, NUIM, RCSI, TCD, UCC, UCD, UL, WIT

10. TTSI Review 2009:
    - Report on TTSI Review June 2009

11. Information pack from HEIs

Appendix 4

AGENDA FOR
TECHNOLOGY TRANSFER STRENGTHENING INITIATIVE CONTRACT REVIEW

DAY 1:

8:30–9:00   *Panel members arrive at TTO*

9:00–9:30   Welcome and Introduction to HEI/TTO representatives – *HEI*
Introductions to panel member*s- panel chair*
Introduction to the Review – *EI*
Opening statement from *HEI*

9:30–10:00   Management Responsibility/Authority of the Office
(15 minutes presentation; 15 minutes discussion)

10:00–10:45   Intellectual Property Policy
(25 minutes presentation; 20 minutes discussion)

10:45-11:00   *Tea/Coffee break*

11:00-12:00   Operations/Processes & Procedures/Documentation
(40 minutes demonstration/presentation; 20 minutes discussion)

12:00-13:00   Demonstration of systems – life cycle of a typical licence/option/assignment agreement and the formation of a spin out
(60 minutes demonstration)

13:00-14:00   *Lunch*

14:00-14:45   Indicators and reporting; Metrics
(25 minutes presentation; 20 minutes discussion)

14:45-15:30   Level of service; researchers, industry, external agencies
(25 minutes presentation; 20 minutes discussion)

15:30-15:45   *Tea/Coffee break*

15:45-16:15   Communications/Promotions
(15 minutes presentation; 15 minutes discussion)

16:15-16:45   Resources/staffing
(15 minutes presentation; 15 minutes discussion)

DAY 2:

8:30–9:00   *Panel members arrive at TTO*
Discuss key issues from Day 1 – Panel chair

9:00–10:15   Panel meet with TTO staff

10:15-11:45   Panel meet with people that the TTO has done business with;
                    A Promoter of a spin out *(30 minutes)*
                    A Licensee *(30 minutes)*
                    A Principal Investigator *(30 minutes)*

11:45–12:45   Panel meet with TTO director

Close

Appendix 5

GUIDELINES FOR TTOS
TECHNOLOGY TRANSFER STRENGTHENING INITIATIVE CONTRACT REVIEW

- **Management Responsibility/Authority of the Office**
  This section will address areas including but not limited to:
    - The responsibility, authority, and the interrelation of personnel who manage and perform technology transfer activity
    - Management reviews
    - Reporting structure of the TTO and it's positioning within the HEI
    - TTO input to the HEI policies, strategy, key documents (e.g. annual report)
    - Relationship/linkage with research centres in the HEI.

- **Intellectual Property Policy**
  This section will address areas including but not limited to:
    - The IP policy document and its consistency with National Codes of Practice including how IP related income is treated and distributed internally
    - Availability of the policy document to staff, researchers, students and how it is explained
    - How the IP policy is reviewed and updated
    - How the college IP committee operates.

- **Operations/Processes & Procedures/Documentation**
  This section will address areas including but not limited to:
    - The guidelines/procedures in place for identification of IP
    - Protection of IP
    - IP marketing material
    - Licensing IP
    - Post deal tracking
    - Spin out formation.
    - Guidelines covering the document management requirements
    - Document templates and their availability
    - Tractability of all documentation.

- **Demonstration of systems – life cycle of typical deals***
  This section will address areas including but not limited to;
    - The lifecycle of two selected licence/option/assignments (LOA) with real-time demonstration of all documentation associated with the agreement from IDF submission to signing of agreement. Ideally, the TTO will demonstrate this with a LOA in which the process was easily followed and one in which the process was not easily followed and discuss lessons learned.
    - The lifecycle of a spin out that the TTO has worked with, e.g. from initial enquiry/engagement, to business plan preparation, to market validation, to financials, to team formation, to licence, to incorporation.
  *real time demonstration using IP management system- e.g. Inteum, myIP

- **Indicators and reporting/Metrics**
  This section will address areas including but not limited to:
  - o Current key performance indicators and metrics of the office-internal and external
  - o Selecting targets
  - o Future KPIs.

- **Level of Service; researchers, industry, external agencies**
  This section will address areas including but not limited to:
  - o Availability of handbooks on TTO services to researchers/industry
  - o Clarity for researchers/industry on the role of the TTO in management of college generated IP
  - o The level of educational resources for researchers on IP, patenting etc;
  - o Service level agreement outlining standards, turnarounds, response rates etc
  - o Systems to engage the industrial community
  - o Systems and metrics to measure the effectiveness of the service provided by the TTO
  - o Collaboration / interaction with funding agencies e.g. EI, SFI, IDA, HRB, IRCSET etc.

- **Communications/Promotions**
  This section will address areas including but not limited to:
  - o TTO website and content,
  - o TTO newsletters (distribution, circulation)
  - o Participation at tradeshows and professional meetings
  - o Methods of marketing the colleges technologies
  - o TTO publicity/showcasing events.

- **Resources/Staffing**
  This section will address areas including but not limited to:
  - o How the TT office functions in terms of staff responsibilities, case loads, and how the staff interact and network with other TT offices
  - o Staff development and training
  - o Resourcing plan for TTO.