# Quality Assurance / Quality Improvement Programme for Administrative Units 2002-2003



Unit Quality Improvement Plan

Office for Innovation & Business Relations

5 August 2003

# Recommendation for Improvement for IP Management & Technology Transfer

The Peer Review Group (PRG) recognised that the review took place at an evolutionary and transitionary crossroads for the Office for Innovation & Business Relations (IBR) in its research support and technology transfer responsibilities. Indeed the transition process had already commenced prior to the Review, which unfortunately lead to misunderstandings by the PRG as to the actual position. Many of the PRG's recommendations for improvement were already in the process of implementation.

#### 1.1 Recommendation

The Panel would suggest that the University should examine the possibility of recruiting an experienced technology transfer professional.

#### Action

The University has agreed to recruit a Technology Transfer Executive. This executive will be based in IBR (INVENT) and will be involved in the implementation of the technology transfer and research commercialisation policy of the University as agreed (May 2001) and further developed in the INVENT Business Plan.

#### 1.2 Recommendation

Although the evolution of the Research and Technology Management functions is reaching a new and specific phase, which appears to be much more focused. it is important that some effort and time be spent producing a written policy clarifying responsibilities and jurisdictions associated with the various constituents.

#### Action

As indicated in the self-assessment report, the University already has a written policy regarding the responsibilities and jurisdiction of the Vice President for Research's Office and its associated IBR Office. The distribution and promotion of the policy is now being implemented.

#### 1.3 Recommendation

The Technology Transfer Officer (TTO) would have responsibility not only for assisting with technology implementation plans at the proposal stage, but also for follow-up auditing and appraisal of results and recommending those to be actively pursued to commercialisation. This should include a process of due diligence, including not only novelty searching but also market evaluation before funds are committed.

#### Action

The goals and objectives and job specification of the Technology Transfer Executive are clearly enunciated in Appendix I.

#### 1.4 Recommendation

Where licensing was agreed to be the appropriate route, the TTO would be expected to actively seek out potential licensees and market the technology to them.

#### Agreed

#### 1.5 Recommendation

Other activities that have been identified as requiring improvement include a host of measures regarding policy development and implementation, including the drafting of IP guidelines for postgraduates, conflict of interest policy, procedures for dispute resolution and monitoring and ensuring compliance with these and other policies such as the university's consultancy policy.

Agreed. These issues are currently being discussed by the Research Committee. The consultancy document is currently with the Executive for consideration.

#### 1.6 Recommendation

More information and monitoring of the research funding and contracts process is recommended.

#### Action

The University has purchased the Info-Ed Proposal Tracking and Technology Transfer modules to enhance this process.

#### 1.7 **Recommendation**

The management of the research, development and tech transfer roles in universities, and indeed in commercial organisations, has been traditionally less than straightforward and DCU is no different from equivalent national organisations in this regard. Clearly there are huge but ever changing drivers, economic, cultural and social, which may merit a complete re think of the process on a national level. It is important that DCU engages with and conveys its needs and opinions to the national players.

#### Action

#### This is being implemented via CHIU and its Committees

#### 1.8 Recommendation

DCU has the potential to significantly capitalise on its operations, to boost performance, to motivate and stimulate staff, to improve and provide resources for society and, of particular importance, to generate much-needed revenue to fund its continued development as it sees fit. Some aspects of this function require flexibility and a dynamic management style to add quality to the working lives of those in DCU and essentially have no direct cost. However, it must be recognised that sufficient financial support for commercial activities must be provided.

Agreed, but as stated by the PRG, cannot be implemented without the relevant financial support. These issues have previously been raised at Heads/Executive level, and would need to form part of the external income earnings and staff incentivisation systems of the university.

# 2. Recommendations for Improvements for INTRA

#### 2.1 Recommendation

Create a more formal orientation process for students to the INTRA program. This could be accomplished through a formal course of one-half to one full term's length or through a web-based course that is interactive in nature.

#### Action

It is our intention to implement a web course with information on how best to prepare for a work placement as part of the new INTRA on line (ITOL) system.

#### 2.2 Recommendation

Continue to provide positive information on benefits of student flexibility in accepting positions away from Dublin and more international employment. This should be included and strongly encouraged in the orientation program.

#### Action

We will continue to point out the benefits, both during and following orientation, of obtaining degree-relevant work in Ireland. Students do not need much encouragement to work abroad if the conditions and remuneration are adequate.

#### 2.3 Recommendation

Attempt to create a method for fuller completion of employer evaluations for students at the end of the work period. Methods could include a more formal agreement structure for job postings, which specifies the requirement as part of the process, telephone interviews where employers are reluctant to complete the form, or web based form submissions to allow more easy access for completion by the employers.

#### Action

We specify to employers that their assessment forms part of the student's exam result. We will be providing web forms as part of the new ITOL system

#### 2.4 Recommendation

Create policy document on health and safety issues for students on employment.

#### Action

We will meet with the DCU Health & Safety Officer to draw up a Health & Safety Document for INTRA

#### 2.5 Recommendation 5

Create more opportunities for international work placement experiences to broaden the career aspirations of students and opportunities for meaningful employment as well as to better prepare students for the global economy.

Both the Director and the Business Liaison Executive have attended many conferences organised by WACE. They are useful for networking with other institutions that organise co-op or internship programmes. However, they have not proved useful to date in sourcing employers who wish to employ Irish students as generally few employers attend. Experience to date would also suggest that wage levels for placements abroad are lower than those offered in Ireland. Coupled with the expense of flights and in some cases, visas, many Irish students cannot afford to consider placements abroad. In the IBR's experience, organising "exchange programmes" would require many more personnel and bigger resources than are currently available. We contact employers in the rest of the EU and the USA in particular every year with information on INTRA.

#### 2.6 Recommendation

DCU should take the leadership role in establishing a National organisation to promote work-integrated learning experiences in Ireland.

Reason for not implementing

The question of establishing a National Organisation is beyond the remit of this Review.

#### 2.7 Recommendation

Computer system improvements are needed as an additional resource to make the programs management more effective. The current Access database system worked well when created but DCU has outgrown the system and Access is platform that is relatively old technology. New systems, such as those utilised by the University of Waterloo in Canada, and Drexel University and Northeastern University in the United States provide for effective management of the job selection process. DCU might consider becoming more web based in their student selection process to make the time utilisation of co-ordinators more efficient.

#### Action

At the time of the review DCU was the <u>only</u> third level institution in the country using a web-based recruitment system for internships. Plans to replace the current ITOL web system and management information access database, with a new integrated fully web based system, were underway before the quality review began. The web sites of Universities mentioned above were reviewed as part of this process. The project, which is being managed and facilitated by the Computer Services Department, is currently at the proposal stage and it is envisaged that the new system will be up and running by 2004

#### 2.8 Recommendation

Provide funds for job training development courses and marketing training for co-ordinators so that they may more effectively create new job opportunities for the students – particularly during more difficult labour market conditions.

It is questionable whether further Marketing training for co-ordinators would result in companies and organisations changing their recruitment policies with regard to hiring internships. However, we acknowledge that it is important that such skills in the IBR be up to date and would therefore welcome such training. This is dependent on resources becoming available from University funds

#### 2.9 Recommendation

Obtain the agreement for an executive-on-loan from a corporation to assist with job development. This might include a senior executive or a professional with years of human resource management experience who would be knowledgeable on the benefits of the INTRA program for corporations and have significant contacts within industry.

#### Action

IBR to meet with IDA to explore the possibility of identifying an individual, resident in the USA, who would act as INTRA co-ordinator, perhaps a retired executive from one of the top IT companies. This is dependent on the success of a search and on resources becoming available from University funds.

#### 2.10 Recommendation

When placing a student resume on an employers interview schedule which has been pulled from the applicant pool but for which the student has expressed no prior interest, the co-ordinator should continue to insure through communication with the student that the student is aware of the benefits of the job.

#### Action

We will continue to point out the benefits of degree-relevant work placements to students, no matter where they are located.

#### 2.11 Recommendation

Provide for more timely distribution of tutor interview sheets so that the visits to the employment sites might be accomplished during the first month of the student starting work when the transition is the greatest.

#### Reason for not implementing

We disagree with this point. It has always been the view that the student should be allowed time to settle in to a position before the tutor visit, i.e. 6-8 weeks. In any case, for work placements starting in February or April, tutors would generally not have time to visit one month after the start.

#### 2.12 Recommendation

Allow academic tutors password access to the INTRA data base system so that they may better advise students.

The Academic Liaison Committee has access to ITOL.

#### 2.13 Recommendation 13

Require returning students to DCU from work experiences to meet with students preparing to go through the process. The purpose of the meeting is to allow returning students to share their experiences and benefits from the program. The example within DCU is the Biotechnology program that has found the program to be very worthwhile.

#### Action

This should be decided on a school-by-school basis. The IBR intends to award a prize to the best INTRA work-term report in each degree programme and perhaps have a compulsory presentation by all award winners to the incoming INTRA group. This may ensure that unnecessarily negative feedback is minimised.

#### 2.14 Recommendation

Provide more flexibility in the placement system to allow students with resources to find their own jobs. Such placements would require the approval of the co-ordinator concerned and the academic department where applicable.

#### Action

Since the inception of the programme, over 20 years ago, students have been actively encouraged to seek their own degree-relevant work placements. Such placements must be ratified by the IBR in conjunction with the relevant school. Students with relatives or friends working in relevant industries or those who have already gained prior work experience with companies are a valuable extra source of new work placement opportunities for the programme, which can be capitalised on in subsequent years. Each year, around 5% of students on the programme secure their own placements.

# 3. PRIORITISED RESOURCE REQUIREMENTS

## **Technology Transfer:**

*Technology Transfer Officer* ca €60,000

#### **INTRA**

1. The implementation, roll out and maintenance of the new ITOL web based recruitment system

Initial outlay€40,000Maintenance per annum€2,000

2. Marketing training for 4 co-ordinators

€4,000

3. Recruitment and annual salary of US based executive

Recruitment€1,500Annual salary€30,000

#### **Appendix 1**

#### **Technology Transfer Executive (TTE)**

As part of the INVENT Business Plan implementation, it was agreed at the Board Meeting 11<sup>th</sup> November '02, to provide details of the role and duties of the TTE for approval.

The Goal as stipulated in the Business Plan (p20), is as follows:

# Maintain and enhance the successful transfer and commercialisation of knowledge and technology from INVENT.

#### Rationale:

- Our internal and external stakeholders (University, researchers, Governments, public and industry) depend on INVENT to transfer technologies out of the University in a professional, effective and flexible manner.
- Successful technology transfer enhances the reputation of the University and attracts additional opportunities and resources
- Technology transfer supports economic development, creates jobs and stimulates investment in the local community

#### **Key Objectives:**

- Provide high quality technology transfer services for our University client base in a professional, effective and flexible manner
- Seek worldwide technology transfer and commercialisation opportunities.
- Enhance the reputation and profile of the University
- Optimise the return on IP to the inventor, the University, and the value to receptor industry

#### **Key Strategies:**

- Work closely with Faculty Deans, School Heads and researchers to enhance the quantity and quality of technology disclosures with commercial potential.
- Ensure INVENT technology transfer teams build strong working relationships with the university research communities
- Educate stakeholders in the technology transfer process
- Communicate with other service providers within the University to optimise IP management
- Work collaboratively with other University teams and other University groups to provide high quality services to researchers.

#### **Key Performance Measures:**

- Qualitative: service evaluation from university clients, economic development agencies, industry technology receptors, governments and industry stakeholders
- Quantitative: parameters such as number of invention disclosures, confidentiality agreements, material transfer agreements, option agreements,

licenses and spin-offs.

• Economic impact parameters: jobs, new companies, investment, and new products.

The type of person and their role is suggested as follows:

#### The person

The successful candidate will be a graduate, preferably with additional postgraduate or professional qualifications combined with significant commercial skills. S/he will be expected to demonstrate relevant professional experience and knowledge with the following attributes:

- 1. A successful record of identifying IP with commercial potential and managing its subsequent technical and commercial development via licensing or new company formation
- 2. An awareness of the various categories of Intellectual Property and the procedures to be adopted to protect them.
- 3. A proven ability to develop effective working relationships with commercial partners and networks of commercial contacts
- 4. The ability to create exciting commercial opportunities based on industry needs
- 5. The ability to structure, negotiate and close deals
- 6. A successful record of meeting financial and other performance targets
- 7. An understanding of academic values and the ability to win the confidence and support of the University's academics and to establish commercial credibility with them.
- 8. The ability to provide clear and useful documents and advice for university committees and other purposes
- 9. A good understanding of and the ability to use a range of software (word processing, spreadsheets, databases, web and email, Powerpoint).
- 10. Experience in assisting companies raise finance would be of benefit.

#### The role

The key responsibilities are to ensure that the following are carried out successfully:

- 1. management of University Intellectual Property and technology transfer process
- 2. campus-wide technology/innovation scouting

- 3. establishing productive relationships with the University's academic and research community to stimulate awareness and encourage exploitation activities across the University
- 4. assessing the commercial potential of IP and identifying the best route to market for it
- 5. advising on the best protection for particular IP
- 6. marketing IP and structuring, negotiating and closing deals
- 7. managing the licensing ventures and tracking royalty payments
- 8. working with the seed fund managers to obtain funding for University IP projects
- 9. managing the use of professional patent advisors in prosecuting patents
- 10. encouraging and supporting the creation of spin-out companies and securing commercial partners for exploitation projects including joint ventures, in conjunction with the INVENT Business Development Executive.

Performance of the post will be measured in terms of licence income generated, number of active, successful spin-out companies formed and the value of the University's holdings in spin-out companies

This is a full-time post, however, for the right candidate a flexible employment package may be available. The appointment will be for a fixed term of three years in the first instance. Future extensions will depend on the success of the post holder

Those candidates invited for interview will be asked to make a short presentation on their approach to carrying out the job and on the possible issues in managing an IP commercialisation process within a university environment.

#### **APPENDIX II**

## • Unit Quality Committee (for the Self-Assessment Report)

Dr. Tony Glynn

Ms. Maeve Long

Ms. Carol Power

Ms. Leah Lynch

Ms. Mary Colgan

Ms. Marie Rooney

#### • Peer Review Group

Mr. Peter Franks

Ms. Sue Final

Prof. Saleem Hashmi

Dr. Robert O'Connor

# • Unit Quality Committee (for the Quality Improvement Plan)

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Ms. Marie Rooney