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

**Peer Review Group Report
for the
Office for Innovation & Business Relations**

Mr. Peter Franks, CEO World Association for Cooperative Education (Chair)
Ms. Sue Final, Research & Industry Officer, University of York
Prof. Saleem Hashmi, Head, School of Mechanical & Manufacturing Engineering, DCU
Dr. Robert O'Connor, Senior Research Scientist, National Institute for Cellular Biotechnology, DCU
(Rapporteur)

4 February 2003

Introduction

This Quality review has been conducted in accordance with a framework model developed and agreed through the Irish Universities Quality Board (IUQB) and which complies with the provisions of Section 35 of the Universities Act (1997). The model consists of a number of basic steps.

1. An internal team in the School/Unit being reviewed completes a detailed self-assessment report (SAR). It should be noted that this document is confidential to the School and to the Review Panel and to senior officers of the University

2. This report is sent to a team of peer assessors, the Peer Review Group (PRG) – composed of members from outside DCU and from other areas of DCU – who then visit the School/Unit and conduct discussions with a range of staff, students and other stakeholders.

3. The PRG then writes its own report

4. The School/Unit produces a School/Unit Quality Plan in response to the various issues and findings of the SAR and PRG Reports.

5. The PRG Report and the School/Unit Quality Plan are considered by the University Executive, which makes a formal response to both, after consultation with the School/Unit and the Director of Quality Promotion. The School/Unit Quality Plan and the Executive Response become incorporated into what is termed the Quality Improvement Plan (QuIP)

6. A summary of the PRG Report and the QuIP is sent to the Governing Authority of the University, who may approve publication in a manner that they see fit. The summary report will then be published on the Quality Promotion Unit website.

7. Following the approval of the summary report by the Governing Authority, the full text of both the Peer Review Group Report and the Quality Improvement Plan are published on the Quality Promotion Unit website.

This document is the report referred to in Step 3 above.

Format of the Review Group Report

1.   Profile of the Unit

Location of the Unit
The Office for Innovation & Business Relations (IBR) is located at the eastern end of the University campus situated on the ground floor of the Innovation and Enterprise Centre (INVENT).

Staff
The self-assessment report named 13 staff, but 3 of these are Invent staff so the unit comprises 10 people.

Product / Processes
The Office for Innovation & Business Relations has the responsibility for the promotion, development, implementation and overall coordination of the University's interface with the Business, Industrial and associated organisations.
The INVENT Centre was defined as being outside the remit of this review.

2.   The Self-Assessment Process

The Co-ordinating Committee
The following members comprised the Unit Quality Co-ordinating Committee.
Chair: Dr. Tony Glynn
                                    Ms. Maeve Long
                                    Ms. Carol Power
                                    Ms. Leah Lynch
                                    Ms. Mary Colgan
                                    Ms. Marie Rooney

Methodology Adopted
The Co-ordinating Committee compiled the information for the internal review process. All staff were circulated with the documentation and kept appraised of progress. In addition, an external consultant, Mr. Ed. Delany, was engaged to help guide the self-assessment process.

3.   The Peer Review Group Process

Site Visit Programme

Arrival of Peer Review Group
Day 0 (Wed 6 November 2002)

18.00 – 19.30	Meeting of members of the Peer Review Group Briefing by Director of Quality Promotion, Dr Padraig Walsh. Group agrees final work schedule and assignment of tasks for the following two days (7th and 8th November).
20.00	Dinner for members of the Peer Review Group, Dr. Tony Glynn (Director of Unit) and Unit Quality Co-ordinating Committee.

Day 1 (Thu 7 November 2002)

09.00 – 09.30	Convening of Peer Review Group in Office for Innovation & Business Relations

09.30 – 13.00	Consideration of Self-Assessment Report with Unit Quality Committee and inputs from other Unit staff, as appropriate. Discussion with Dr. Tony Glynn and Mary Colgan
13.00 – 14.00	Brief Discussion with the Director of Quality Promotion
14.00 - 14.30	Visit to core facilities of Unit
14.30 - 17.00	Meetings with representative selections of: INTRA Students, INTRA Employers, Academic Coordinators
17.30 – 18.30	Meeting of Peer Review Group to identify remaining aspects to be clarified and to finalise tasks for the following day
20.30	Working private dinner for members of the Peer Review Group

Day 2 (Friday 8 November 2002)

09.00 – 09.15	Convening of Peer Review Group in Office for Innovation & Business Relations
09.15 – 10.00	Meeting with Prof. Ferdinand Von Prondzynski (President), Prof. Albert Pratt (Deputy President), Prof. Patricia Barker (Registrar), Mr. Martin Conry (Secretary) and Mr. Eamonn Cuggy (Finance Officer)
10.00 – 11.00	Draft preparation time
11.30 – 12.30	Meeting with the Vice-President for Research, Prof. Dermot Diamond
12.30 – 13.00	Meeting with non-academic researchers
13.00 – 14.00	Discussion with the Director of Quality Promotion
14.00 – 16.00	Preparation of 1st Draft of Final Report
16.00 – 16.30	Exit presentation to staff of the Unit summarising the principal findings of the Peer Review Group
19.30	Working private Dinner for members of the Peer Review Group to complete drafting of report and finalisation of arrangements for speedy completion and submission of final report.

Methodology
The visit followed the timetable developed by the Unit Quality Coordinating committee in collaboration with the QPC office. The self-assessment report and background information on the process was provided to the PRG in advance. The two days of the review were spent in interview and discussions with some of the personnel of the Coordinating committee, various users of the services of the unit and the senior management of DCU. The significant findings of the group were communicated in a final briefing to some of the quality coordinating committee and this formed the basis of this report.

Overview of the Site Visit
The members of the PRG were enthusiastically welcomed by the Unit. The group found the facilities and timetable very satisfactory for the two days of the process. There did appear to be some confusion on the standard mechanisms and raison d'être of the review process and this possibly explained why all staff did not meet the PRG. The committee also felt that some aspects of the process could have been more completely discussed in the internal quality review. However, the flexibility of the timetable allowed for a fuller discussion of all aspects of the operation of the IBR unit.

Methodology used to produce report
The PRG relied heavily on interviews and discussions with the various stakeholders. Specific documents including the research desk review, compiled from responses by DCU staff, the booklets associated with research (The DCU guide for researchers)

3

and INTRA guide, as well as the Internal Quality review document provided specific and general background data. Early in the process, the workload was divided by consensus. Peter Franks took primary responsibility for producing the closing discussion relating to INTRA. Sue Final, produced the final comments on the Tech transfer and research desk components. All members added commentary to these points and the final document was collated by Robert O'Connor.

<u>Review Group's view of the Self-Assessment Report</u>
The PRG found the Self Assessment extremely useful to describe the complex relationships of the IBR office within DCU. In general, all the primary aspects of the functions of IBR were described in the report; however, the report contained a fuller description of the review of the INTRA programme.

4.   Findings of the Review Group

The PRG recognised that DCU is emerging from a tremendously rapid evolution and developmental phase in its life. The effects of this process are clearly evident all around the university and in the evolving role of the IBR unit within DCU. Discussions with all parties involved in the review indicated that the quality of services provided by IBR and the individual and collective dedication of its staff were a significant contributor to the success of the university and its students. During discussions with senior university management, it was suggested that the PRG might like to comment on the "management of change" process in DCU. The PRG felt that they had insufficient information and it was outside their remit to make commentary on these issues in broad terms. However, the PRG did form some impressions with respect to the historical management of the functions of IBR. Primarily on the Research and Technology management side, there are indications that the rapid changes in DCU have led to an unnecessary complexity in the relationships between IBR and the various sectors within the university, and particularly with certain senior management functions. In places this has either led to duplication of effort or important points falling between various jurisdictions or not been resourced adequately for the good of DCU. Thankfully, individual reactions have maintained a core competence and professionalism and there are strong indications that the various roles undertaken within IBR are now, and will be in the future, the subject of clear and specific direction. Better resourcing and structure should see proactive instead of reactive direction.

The PRG found that the review naturally fell into a discussion of two general divisions of the function of IBR. These are the Research & Technology Management Services and the INTRA programme

Research & Technology Management Services

The Self-assessment report covered the responsibilities and current activities of the Office of Innovation and Business Relations, although many of the statistics included below were collected by way of interviews and direct requests for information during the review process. Its principal responsibilities with respect to research & technology management have included research support, from dissemination of information regarding funding sources and advice on how to make applications for grant funding, through to contract negotiation, intellectual property agreements, patenting and licensing of resulting technology.   In discussions it became apparent that a large part of this function is to be transferred imminently to the Vice President for Research's office, with the exception, it is expected, of IP management, technology transfer and commercialisation.

Since the Research Desk was created in 1994, the function and role has undergone some changes and considerable growth, due both to increase in numbers of faculty it serves and the changing external research environment to which it has been expected to adapt.

Research Support
The Research Desk is required to have a thorough knowledge of the principal national and international funding agencies and funding initiatives as well as an in-depth knowledge of the policies and regulations relating to these initiatives. Its role is to disseminate details of targeted funding opportunities to Faculty; to provide advice and assistance with proposal preparation; to serve as point of contact for funding bodies wishing to embark on collaborative research projects with Faculty; and to maintain statistics on the contract research activities of the University.

The role may be broken down into the following areas:

Information and Dissemination
- Gather and disseminate details of appropriate funding opportunities to Research Faculty (email/phone/website).
- Identify unused or under-utilised sources of funding (SPIN database; mailshots etc.).
- Advise on compliance with application procedures and assist with administrative details of the proposal submission process.
- Organise presentations and seminars to inform, encourage and assist Faculty in preparing research proposals.
- Produce an annual Guide to Research for Faculty
- Respond to miscellaneous Faculty queries seeking research funding outside the mainstream initiatives.

Evaluating Process
- Review all industry- related or commercially focused research proposals prior to submission.
- Examine all invention disclosures and manage the evaluation process, in advance of any commitment by the University to protect and secure commercial terms for the same.
- Ensure assignment of Intellectual Property to University where appropriate.

Review of Proposals, Contracts and Agreements
- Review proposals to ensure compliance with sponsor terms and conditions; liaise with the Finance Office regarding proposal costings.
- Review research contracts and agreements prior to authorised signing.

Research Linkages and Networking
- Liaise with funding agencies and organisations on behalf of DCU and represent DCU in meetings and working groups involving the agencies.
- Provide intelligence on forthcoming trends and opportunities.
- Promote DCU's expertise through good channels of communication with the funding agencies and research collaborators.
- Take pro-active role in establishing contact with unused or under-utilised funding sources.
- Assist Faculty with Partner Searches for collaborative research opportunities.

Records and Reports
- Maintain database of DCU's contract research funding activities (Access database)
- Generate regular electronic bulletin for researchers on funding opportunities and related matters.
- Develop and maintain a user friendly, informative website with direct links to all relevant information for researchers seeking funding.
- Generate regular reports on contract research activities and funding levels.
- Photocopy and file all research proposals authorised by IBR.
- Photocopy and file all signed research contracts and agreements

The function of the Research/Technology Transfer Service in terms of Technology Transfer is to promote the dissemination of University-generated knowledge; to

encourage and promote technology transfer and commercialisation and to oversee the management of the University's intellectual property.

The role of the Research/Technology Transfer Desk involves:

Generating Awareness
- Advise and assist Faculty in addressing the commercialisation/ technology implementation requirements of research proposal submissions.
- Serve as a point of contact for industry to facilitate technology transfer collaborations between the University and the company.
- Encourage early and confidential disclosure of invention(s) to Research/Technology Transfer Desk.

Drafting Agreements and Implementing Policy
- Draft and review Confidentiality Agreements, Non Disclosure Agreements, Material Transfer Agreements, Memoranda of Understanding etc.

Contract/Agreement Negotiation
- Represent University and Faculty interests in the drafting and/or negotiating research and Intellectual Property agreements with collaborators, industrial and otherwise
- Liaise with Patent Agents and legal advisors as required.

Evaluating Process
- Review all industry- related or commercially focused research proposals prior to submission.
- Examine all invention disclosures and manage the evaluation process, in advance of any commitment by the University to protect and secure commercial terms for same.
- Ensure assignment of Intellectual Property to University where appropriate.

Intellectual Property Portfolio Management
- Manage IP protection process via patenting; license agreements etc. as considered appropriate
- Liaise with Invent regarding potential spin-outs.
- Implement management information tool for the tracking and management of the University's intellectual property portfolio.

Findings

The review took place at an evolutionary and transitionary crossroads for IBR, particularly in its research and technology responsibilities. Discussions with the levels of management involved in the process indicated that although there was recognition of the need and importance of these functions, there is still some debate on some of the finer points of this evolution. The services outlined are to be rationalised under the direction of the VP Research and it is apparent that this centralisation can provide a clear vision for the future significance of these processes particularly within the university.

As noted above, the person known as Research Desk, is to be transferred and physically located in the VP's office; in addition the Director of IBR now reports to the VP for Research. The idea is that all services relating to research, including the securing of external funding for research, distribution of funds for research from the University's HEA grant and its fellowship awards scheme and contract management will be integrated with the strategy/policy making function within the University. This

will avoid any confusion amongst faculty as to respective roles and, in the Peer Review Group's opinion, will make for a more streamlined and intelligible service. A survey conducted by research desk amongst academic staff, while achieving a relatively low 20% response, clearly indicated that there is currently some confusion regarding roles and, in some cases, a lack of knowledge of the functions and services provided by IBR. This is partly due to IBR's lack of resource to proactively promote itself and its services within the DCU community (discussed further below).

It is therefore also to be hoped that the move to VPR will provide the opportunity for a review of requirements in terms of personnel. While the IBR office has lost some function over the last few years (research award and fellowship schemes to Dean for Research and postgraduate studies administration to Registrar), the increasing emphasis placed on the importance of research, the 56% increase in faculty numbers, 200% increase in research income from external sponsors (in cash terms) and the 400% increase in size of the patent portfolio, has put severe pressure on the 2 people involved (research desk and the director). In addition, the Director has recently had to spend time on the development of Invent – the Innovation and Enterprise Centre, further reducing the resource available for the management of technology transfer. Insufficient human resources is a difficulty, which was mentioned in the self-assessment report. While the resource is understaffed, the PRG felt that a more detailed review of this section in its proposed new environment would be necessary to give an accurate picture of the additional resource requirements. Despite the increased demands outlined above, it is clear that a strong personal relationship with the active research and technology driving staff has been a cornerstone of the function of IBR to date and maintenance of such a relationship is perceived as a vital component of any future restructuring of these roles.

As a result, IBR has been unable to be as proactive as it would like and believes to be necessary. On research support it has confined itself to dissemination of information, responding to rather than generating enquiries from academics, ensuring compliance with sponsor terms and the university's regulations through contract review and negotiation and keeping records of research activity. The VP for research also has the responsibility for promoting research across the university, which implies a more proactive approach and, if successful, more demand for contract and proposal review and advice.

The Guide to Research is an excellent document in hard copy, but it has not been updated for two years and, judging from some of the comments to the research desk questionnaire, not all of the information contained within it has been internalised by academic colleagues.

On the technology transfer side, IBR has received around 3 invention disclosures per annum. Unusually for a university tech transfer office, all of these have been judged novel, patentable and worth patenting; this was explained by the fact that these have all been generated by the most experienced researchers who are well versed in the patenting system and have been able to do patent searching themselves before approaching IBR. There are now 15 patents within the IBR portfolio and £30,000 investment (in terms of patent costs) tied up in them. However, additional costs have been borne by external companies. Only two of these patents have been licensed and produced any revenue to date; a total of €212,000.

There has been no move to date to set up a process to encourage disclosures or to actively audit research groups with a view to identifying IPR, although the processes required for improving awareness, including regular meetings with /Faculty, dissemination of good practice guidelines, including a comprehensive web site and

an induction programme for new researchers were all identified as essential components. The Review Group's consultation with a limited cross section of research active faculty conveyed the strong impression that there is far more intellectual property being generated within research groups and centres than is being actively disclosed to IBR. We would therefore further suggest that a formal review at the end of research projects, especially those funded by Enterprise Ireland where a technology implementation plan has been an integral part of the original proposal, should be instituted without delay as many of the original batch of these projects are beginning to mature.   Given the applied nature of the research and the focus on implementation from the outset, there has to be a good chance that at least a substantial number of the 26 projects funded so far will provide results worthy of commercial exploitation, and the University/researchers have a responsibility to see that the opportunities are not wasted by inaction.   As the sub-set of research with the highest probability of commercial application, and, therefore, some relatively quick wins, this should take priority over a more general procedure for audit and review.

Suggestions for Improvement

1. The Self Assessment report concludes that most areas are capable of some improvement, largely dependent on resources being made available. For example, the generation of greater awareness amongst Faculty, both of research opportunities and technology transfer, requires more regular contact through meetings with individuals and groups, a revamped web site, and the institution of an induction programme for new staff. All of these will help, but require appropriate manpower to put into practice. The Panel would suggest that the University should examine the possibility of recruiting an experienced technology transfer professional, firmly based within the University, with a remit to see to the pull-through of technology with commercial potential. This would enable Research Desk to spend more time on pursuing the increased research agenda, including more networking with funding bodies, investigation of lesser known funding opportunities and the promotion of research amongst Faculty through meetings, workshops and more focused information dissemination.

2. 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. Such a policy would be supplemental to the suggested revamp and update of the Guide for Researchers and the specific proposals of point 5 below.

3. 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.

4. 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. There is no point in having numbers of granted patents within the portfolio unless there is the wherewithal to generate revenues from them. Therefore, it will be important that, at the evaluation stage, real commercial potential is identified and priority given to those technologies scoring the

highest for such potential. It is unlikely that all disclosures will have equal merit, particularly as the awareness generating mentioned above should result in a broader range of technology being put forward. In some cases, the preferred route to commercial exploitation may be through setting up a spin-out company through the auspices of Invent; the TTO would then pass on the detailed negotiations to the Director of IBR/Invent.

5. Other activities which 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.   There also needs to be a proper system in place for capturing disclosures and monitoring progress through to commercialisation – the recently purchased web-based technology transfer tracking module may help to ensure more efficient procedures and reporting.

6. Likewise, more information and monitoring of the research funding and contracts process is recommended.   DCU is currently evaluating a proposal tracking tool; it is to be hoped that this will enable better evaluation of differential performance across the different schools, followed up by appropriate action to rectify problems and pursue opportunities.

7. 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. In this context, concepts such as a regional or national coordinating body and much closer association with state agencies such as the IDA and EI may emerge as a rational route to synergistically tap into the individual resources of schools, faculties and national research organisations, such as DCU, and market and trade these resources in a bi-directional manner, through appropriate means to users including companies but also the taxpayer. It is important than DCU engages with and conveys its needs and opinions to the national players. It should be pointed out that this approach has already resulted in the placing of a commercialisation professional funded and employed by EI within the Biotechnology Research Centre. This individual reports to the Director of IBR.

8. 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. Without long term and appropriate investment, experience elsewhere suggests that DCU will lose opportunities. In some ways, this is a gamble since many attempts at commercialisation fail to deliver. However, in the longer term, every success can more than adequately recoup the overall investment and reward the organisation and its staff.

Background and Context

From the inception of the University in 1981, the INTRA program has been an important strategic method of differentiating DCU from some competitive institutions. It is an integral part of the educational philosophy of the institution and provides vitally important functions for the University. This placement program considerably enhances the education received by undergraduates of DCU and provides for stronger relations with industry partners associated with the University. Student placements are for one period of time and differ in time on the job based upon the agreements organized with the academic units.

The PRG schedule provided for meetings with all major client groups of the INTRA placement office. The schedule included meeting time with the Director of the Unit, three members of the INTRA professional staff, a select group of employers, students, and a representative group of academic faculty and senior management of DCU. The PRG believes that the time allotted for these meetings was well designed and sufficient for a good working knowledge of the unit functions.

Management and Organization

A Business Liaison Executive employing a team based management style manages the INTRA unit. The three coordinators expressed their satisfaction with the participative management and activities of the unit. Organization is based upon a division of labour by academic discipline focused upon the strengths of the four coordinators working with the academic schools. All clients expressed high satisfaction levels with the staff's positive attitudes, professional demeanour and fine follow up when issues arise. During discussions with employers, a minor criticism was levelled against some academic staff tutor visitors who can give a jaded impression of the interest of academic staff in the INTRA process.

Students register for the program in the first term of the year preceding their placement. Students select jobs of interest via an INTRA website posting of job descriptions. The student's CV is forwarded to the employers who select the students best meeting their criteria and skill needs for interviews. When an employer makes a job offer it is mandatory that the student accept the offer. The PRG was interested in the fact that students are assigned to interview schedules by the coordinators when a sufficient number of students do not sign up for an interview with the employer. Given the mandatory acceptance nature of the program when a job offer is tendered by an employer, all constituents: students; employers and academics expressed concern with this policy since it is less likely that a student will perform well in an interview for a job they are not interested in and as a result, in some cases, the interview process is not as productive as it might otherwise be.

The placement rate of some academic programs is declining based upon the number of jobs becoming available in a softening labour market and the increase in the number of students admitted and eligible for placement. Where a student is not accepted by an employer in a mandatory program, the INTRA staff or the academic school devise a project for the student to complete during the normal placement period. While this fulfils the requirement for the degree to have a work placement, all parties agree that this is less than an ideal situation. Students are visited by an academic tutor and receive communications by the INTRA staff during their work period. Academic tutors expressed concern that the notification of the student placement (interview sheets) may come to their attention well into the placement

period and that this process of faculty visitation should be completed during the first 6-8 weeks of the placement when the student adjustment is greatest.

Students are assessed in three ways:

1. By the academic tutor following their visit with the student and the industrial supervisor;
2. The student report due within two weeks of returning to campus outlining their responsibilities, their learning outcomes, working atmosphere and assessment of the job for future placements.
3. The employer is requested to complete an evaluation form on the student's performance. The PRG took notice that such evaluations are requested by the INTRA staff but not all employers comply.

Services Offered

The INTRA coordinators meet with student groups at the end of the second semester of the year prior to their INTRA year to orient them to the process and requirements. A more detailed INTRA briefing session is held during the first week of the Semester 1 of the INTRA Year. Assistance in writing and critiquing of CV's is also provided. The Career Centre provides interview skills preparation upon request by the student. The INTRA programs cross all areas of the University and through positive actions and detailed follow up on specific issues it is functioning well with students, employers and academic faculty.

Staffing, Accommodations and Resources

The INTRA staff articulated their belief that the amount of staff is adequate for the job functions. They place 800 students annually with an average coordinator to student load of 200 students each – in the experience of the PRG, this is likely reaching maximum proportions without new software becoming available to make placements more efficient. They expressed concerns that the original software (Access database) for compiling all records on students and job placements is now becoming obsolete and new systems fully integrating management and recruitment functions will need to be developed soon. Development of new opportunities for student placements is concentrated during the summer months when the workload of the coordinators is lighter. Research for leads of jobs is conducted by reviewing the job advertisements in newspapers, trends in the labour market, contacting of employers by telephone. INTRA staff expressed concern that students are reluctant to take employment not in the immediate Dublin area, thus limiting quality employment opportunities. The PRG believes that this issue may be partially addressed through an enhanced orientation program during the first or second year. This program could be accomplished well through a combination of a web-based interactive program and meetings with INTRA staff and employer volunteers. Accommodation in the new Invent centre are excellent with good interaction with employers available in a professional and pleasant environment.

Overall Analysis of Strengths, Weaknesses, Opportunities and Concerns

Strengths

1. DCU has strong and viable links with Industry
2. Reputation of INTRA placement program within and outside of the University
3. Students gain work experience in chosen career fields
4. Students have better career selection process

5. Strong integration of INTRA program within academic functions of the University
6. Effective management with highly motivated staff
7. DCU students are regarded very highly by employers having good training in their own area and generally broad and mature experience with superior IT skills.

Weaknesses

1. Ability to place all students dependent to a degree upon labour market conditions
2. Increasing number of students in program will require additional resources and/or improved technology for program management
3. Alternatives to required work placement are not well defined
4. Orientation program not well developed

Opportunities

1. Improvements in the amount of information on student and job progress available to academic departments using Internet access and the ability to exploit for more efficient and effective operation
2. Ability to expand international opportunities within the EU, North America and the Pacific
3. Utilization of alumni coming into positions of authority within industry
4. Better utilisation of potential Industry-Academia links initiated through INTRA contact
5. Formation of a national organization to promote the concept with industry and government, gather statistics on trends for work-integrated learning programs within Ireland, etc.

Threats

1. Competition for job development with other educational institutions
2. Increasing numbers of students require new resources and procedures
3. Pulling of student CV's to participate in interviews where no expressed desire to work at company can result in poor interview performance and weakening of relations with employers
4. Selection of academic tutors for company visits motivated to participate in the process

Recommendations for Improvement

1. 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.
2. 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.
3. 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.

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

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. This can be accomplished through a variety of means including utilizing the services of the World Association for Cooperative Education to help link DCU with other institutions for exchange programs, attending training programs of WACE, attending international conferences to network with other professional interested in establishing programs for their institutions and marketing the INTRA program to multinational employers.

6. DCU should take the leadership role in establishing a national organization to promote work-integrated learning experiences in Ireland. The organization could promote programs to employers and government agencies. By connection with government entities, the association could act as a third party voice to encourage legislation favourable for the development of work based education programs. It could also gather statistics so that trends in student employment could be followed which would have policy implications for institutions.

7. 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 utilized 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 utilization of coordinators more efficient.

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

9. 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.

10. 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 coordinator should continue to insure through communication with the student that the student is aware of the benefits of the job.

11. 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.

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

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.

14. 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 coordinator concerned and the academic department where applicable.