

Quality Assurance / Quality Improvement
Programme for
Schools/Faculties/Units/Themes
2007-2008



Quality Improvement Plan

National Centre for Sensor Research

November 2008

Contents

1. Introduction
2. Response To Recommendations in the Peer Review Group Report
3. Summary of One-Year Plan
4. Summary of Three-Year Plan
5. Appendices

This Quality Improvement Plan was discussed and agreed at a meeting on 12 November 2008. The participants in the meeting were

Senior Management:	Professor Anne Scott (Deputy President) Professor Eugene Kennedy (Vice-President for Research)
Faculty of Science & Health:	Professor Malcolm Smyth (Dean of Faculty)
NCSR:	Professor Dermot Diamond (Director) Dr Jackie Glynn (Manager)
Peer Group:	Dr Enda McGlynn (Rapporteur) Mr Eoin Sweeney (Marine Institute)
Quality Promotion Unit:	Dr Heinz Lechleiter (Director, chairing)

1. INTRODUCTION

The NCSR Quality Improvement Plan (QulP) was developed based on input from the NCSR Director, Manager and the NCSR Quality Review Committee. The NCSR QulP addresses recommendations made by the Peer Review Group (PRG) and also addresses recommendations made as a result of Focus Groups and One-on-One meetings with NCSR stakeholder groups and detailed in the NCSR Self Assessment Report.

**2. RESPONSE TO RECOMMENDATIONS IN THE PEER REVIEW
GROUP REPORT**

2 Recommendations for Improvement for SCHOOL/UNIT/CENTRE

The following notation is used in the recommendations for improvement.

P1: A recommendation that is important *and* requires urgent action.

P2: A recommendation that is important, but can (or perhaps must) be addressed on a more extended time scale.

P3: A recommendation which merits serious consideration but which is not considered to be critical to the quality of the ongoing activities in the Unit.

Additionally, the PRG indicate the level(s) of the University where action is required:

A: Administrative Unit

U: University Executive/Senior Management

S/F: School and/or Faculty

RC: Research Centre

LSRI: Large Scale Research Initiative

Or other units, for example OVPLI, OVPR as applicable.

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
1	U	P1	Recommendation: DCU creates 2 associate professor posts within NCSR and fills them with world-class candidates.	Permanent academic posts in the university are located in schools and faculties A number of appointments were made in the recent past, and a post in Environmental Science will be filled shortly. The NCSR is strongly

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<p>encouraged to make a strategic case to the Faculty in relation to further posts.</p> <p>Opportunities may arise through the Stokes recruitment process for high performance researchers to apply. This process will be a competitive one.</p> <p>Timeframe: 1-year implementation plan</p>
2	U + RC (+ LSRIs)	P1	<p>Recommendation: DCU and NCSR management committee engage in a process to develop a dispersible discretionary recurrent budget for equipment maintenance and operation – the LSRIs (hosted within NCSR) and other centre users should contribute to this and the university should contribute seed money to start the process.</p>	<p>NCSR has completed a database of all large items of equipment, user lists and quotations for corresponding maintenance contracts to estimate total annual budget for equipment maintenance and operation, with a view to making optimal use of the equipment and creating income.</p> <p>NCSR will develop a management, access and business model in discussion with present and potential future center users.</p> <p>Currently the OVPR operates an equipment maintenance call each year funded through indirect costs. This call is competitive and is open to NCSR as well as the rest of the research community. The size of the budget is limited. In</p>

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<p>the current financial climate, it is very unlikely that DCU will have the additional financial capability to provide significant further financial support to meet this recommendation. NCSR is advised to be as proactive as possible in exploiting the existing HEA and SFI equipment schemes.</p> <p>As a result of the recent Research Centre review it is suggested that a university designated facility scheme will be introduced which will address the recommendation. Timeframe: 1-year implementation plan</p> <p>Timeframe: 1-year implementation plan</p>
3	RC+U+ F/S+ OVPR	P1	<p>Recommendation: All those involved with NCSR, in management of its academic PIs or in its reporting or funding lines, need to improve their communications by setting up appropriate mechanisms e.g. between school heads and centre and LSRI directors, between FSH, OVPR and centre and LSRI directors etc. These mechanisms should be formalised within the calendars of the various units.</p>	<p>NCSR will take the following steps to improve communication between NCSR and stakeholders at every level:</p> <ul style="list-style-type: none"> • The Dean will establish meetings with the NCSR Director, School Heads and National Centre Director, and OVPR where deemed desirable / necessary on a regular basis. • Through the Dean of Faculty, and where deemed necessary, formal quarterly meetings with the

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<p>various University Administrative Support Units including Finance, HR, OVPR will be established to explore ways to optimise communication and service e.g. activity tracking including research proposal applications, research income & expenditure, PG/PD contracts, Centre affiliation. Meetings will involve Dean of Faculty or nominee, Research Centre-dedicated personnel and appropriate members of staff from University Administrative Support Units and Director/Manager from Research Centre.</p> <ul style="list-style-type: none"> • Monthly management committee meetings (to improve communication between NCSR Director and LSRI Directors) have been established. <p>Due to the establishment of the position of a Communications Officer internal and external communication has been improved. Some indicative actions are:</p> <ul style="list-style-type: none"> • NCSR management committee meeting summaries will be circulated to all NCSR PI's. • Weekly meetings between NCSR and LSRI managers have been introduced. • NCSR Website Update and improve

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				<ul style="list-style-type: none"> • Monthly circulation of the NCSR bulletin is being re-established • Bi-annual “All NCSR” meetings with address by NCSR Director will be established. • An NCSR Representative Committee comprised of post-graduate, post-doctoral, administrative, technical officer, academic representatives is being formed. <p>Timeframe: 1-year implementation plan</p>
4	U (OVPR) +RC +F/S	P1	Recommendation: The reporting lines of all staff in the centre, including the director, need to be clarified and formalised. In addition, the current review of research centres should consider the fact that the current separation of the reporting line (through the dean) and funding line (through the OVPR) is potentially confusing and problematic for large research centres and also potentially detrimental to their communication with the faculties and schools.	<p>It is anticipated that the Research Centres Review will recommend the reporting line of Centre Directors. This review will be considered by the Research Committee and later by Executive before implementation.</p> <p>RC and F action will follow from model suggested the Research Centres Review.</p> <p>Timeframe: 1-year implementation plan</p>
5	RC	P1	Recommendation: NCSR should establish an active external advisory board with suitable membership across academic, government, industry and commercialisation areas	The membership of the NCSR External Advisory Board will be agreed at NCSR Management Committee.

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				The NCSR External Advisory Board will be recruited by end 2008. Timeframe: 1-year implementation plan
6	RC+F/S	P1	Recommendation: NCSR director should sign off on all research proposals or similar initiatives which use NCSR facilities, brand or logo.	NCSR has performed a reaffirmation of membership procedure. As part of this, NCSR PIs were asked to commit to the requirements of NCSR membership which include identifying NCSR on all research proposals and publications. NCSR has implemented a system whereby the NCSR Director/Manager have access via the DCU Internal Proposal Approval System (IPAS) to all research proposals submitted by NCSR members. The OVPR will help to facilitate further development of this system. Timeframe: 1-year implementation plan
7	RC+U (Invent)	P2	Recommendation: NCSR should implement and strengthen its commercialisation committee and also activities around IP marketing with INVENT, in order to drive commercialisation to final stages of licensing and spin-outs as a matter of urgency.	NCSR has formed the NCSR Commercialisation Committee with membership from Invent and EI Commercialisation specialists which holds monthly meetings. The first meeting of the NCSR Commercialisation Committee was held in July 2008.

	Addressee	Priority	PRG Recommendation (Draft Report)	Response
				Timeframe: 1-year implementation plan

3. SUMMARY OF THE ONE-YEAR PLAN

Dir: NCSR Director; Mgr: NCSR Manager; MC: NCSR Management Committee; CC: NCSR Commercialisation Committee; CO: NCSR Communications Officer; LSRI: Large Scale Research Initiative

Initiative	Desired Outcome	Start date	Budget	Responsible
<p>Create 2 Associate Professor posts within NCSR.</p> <ul style="list-style-type: none"> The NCSR Director, Dean of FSH and OVPR will meet to discuss the creation of 2 Associate Professor posts within NCSR. <p>Create a number of permanent faculty positions for high performance researchers</p> <ul style="list-style-type: none"> The NCSR Director, Dean of FSH and OVPR will meet to discuss the creation of a number of permanent faculty positions for high performance researchers currently at post-doctoral level. 	<p>Succession planning to secure NCSR's development into the future. Permanent academic posts in the university are located in schools and faculties, not in research centres. Issues of succession planning should be addressed with the Dean of Faculty in the first instance.</p> <p>This is neither possible nor necessarily appropriate at this time. Researcher career progression is a national issue and there is a system – wide approach being taken. Currently permanent university positions are funded from the core income and bring with them the normal expectations in terms of teaching and administration, as well as research.</p> <p>University management note that this was not a recommendation of the Peer Review Group. However opportunities will arise for recruitment through the SFI Stokes process. This is a competitive process.</p>	Q1 2009	TBD	U, Dir

<p>Create 4 additional NCSR-based technical officers.</p> <ul style="list-style-type: none"> The NCSR Director will meet with OVPR to discuss the creation of 4 additional NCSR-based technical officers. 	<p>It is noted that this was not a recommendation of the Peer Review Group. The OVPR provides technical support through indirect costs in a manner based on faculties but providing support to different centres as required. However this will not allow creation of specific NCSR posts.</p>			
<p>Develop a dispersible discretionary recurrent budget for equipment maintenance and operation.</p> <ul style="list-style-type: none"> NCSR and LSRI will agree LSRI contributions at NCSR Management Committee meeting level. The NCSR Director and Manager will meet with OVPR to discuss the level of seed money which will be provided by OVPR to start the process. 	<p>Provision of level of equipment maintenance appropriate to world class research centre.</p> <p>Currently the OVPR operates a limited equipment maintenance call on an annual basis. This is open to NCSR on a competitive basis.</p>	Q4 2008	€50k	Dir, Mgr OVPR
<p>Improve communications with all NCSR stakeholders.</p> <ul style="list-style-type: none"> Set up meetings between the NCSR Director, Dean FSH, School Heads and OVPR to establish appropriate communication mechanisms Through the Dean of Faculty, and where deemed necessary, establish formal quarterly meetings with the various University Administrative Support Units including Finance, HR, OVPR, to explore ways to optimise communication and service e.g. activity tracking including research proposal applications, research income & expenditure, 	Better communication between stakeholders	Q4 2008	€16k p.a.	Dir, Mgr, CO, Dean FSH, School Heads, OVPR Various University Administrative Support Units including Finance & HR

<p>PG/PD contracts, Centre affiliation. Meetings will involve the Dean of Faculty or designate Research Centre-dedicated personnel, appropriate member of staff from University Administrative Support Unit and Director/Manager from Research Centre.</p> <ul style="list-style-type: none"> • Establish monthly management committee meetings (which will improve communication between NCSR Director and LSRI Directors) • Circulate of NCSR management committee meeting summaries to all NCSR members • Establish weekly meetings between NCSR/LSRI managers • Update and improve NCSR Website • Re-establish monthly circulation of the NCSR bulletin • Establish bi-annual "All NCSR" meetings with address by NCSR Director • Form an NCSR Representative Committee comprised of post-graduate, post-doctoral, administrative, technical officer, academic representatives 				
<p>Clarify NCSR Staff reporting lines.</p> <ul style="list-style-type: none"> • The NCSR Director, Dean of FSH and OVPR will meet to discuss the reporting line for the NCSR Director. • NCSR will produce Org Charts to represent reporting lines for all NCSR staff. 	<p>Streamlining of reporting and interaction of Staff.</p>	<p>Q4 2008</p>	<p>N/A</p>	<p>Dir, Mgr, Dean of FSH & OVPR</p>

Establish active External Advisory Board	Avail of expertise and input of world class experts into the strategic development of NCSR with membership from academic, industry, government and commercialisation areas.	Q4 2008	€20k p.a.	Dir, Mgr, MC
Implement Director sign-off on all NCSR research proposals. <ul style="list-style-type: none"> Reaffirmation of membership & associated policy regarding designation of NCSR Implement Director sign-off via access to IPAS 	Permits appropriate planning for allocation of resources such as space, technical support, equipment usage. Permits effective tracking of Centre research performance metrics which include aggregated income, aggregated membership, aggregated publications. Additionally, permits appropriate financial planning based on predicted overhead allocation.	Q4 2008	N/A	Dir, Mgr
Strengthen activities around IP marketing with INVENT, in order to drive commercialisation to final stages of licensing and spin-outs	Reach and exceed targets for creation of licences and spinouts as detailed in NCSR Strategic Research Plan 2008-2010	July 2008	\$2k p.a.	CC, Mgr
Communicate NCSR Strategy and Vision to all members via "All NCSR" meeting.	Achieve better understanding of NCSR Strategy and Vision and general "buy in".	Q4 2008	N/A	Dir, Mgr
Resource map scientific expertise/equipment/facilities audit and make results available to NCSR members via website.	Encourage inter-group collaboration & more efficient use of NCSR equipment/facilities	Q4 2008	N/A	Mgr
Identify funding initiatives that may be applied for as a Centre.	Sustainability	Q1 2009	N/A	Dir, Mgr, MC
Define benefits of NCSR membership & publish on NCSR website	Attract new membership	Q4 2008	N/A	Mgr/CO

Form NCSR Representative Committee comprised of post-graduate, post-doctoral, administrative, technical officer, academic representatives and establish remit	Better communication between members & Management Committee	Q4 2008	N/A	Dir/Mgr
Rotate Management Committee representatives with a one year term for elected academic member	Better representation of different research areas on Management Committee	Q4 2008	N/A	Dir/MC
Define the type of support NCSR will provide for existing and future research initiatives	Encourage participation in future research initiatives	Q1 2009	N/A	MC
Establish annual seminars for members organised in cooperation with Invent to ensure adequate education of researchers in the process and importance of capturing IP.	Increase NCSR IP assets with a view to commercialisation	Q4 2008	N/A	CC
Establish annual meetings between research groups/clusters and Invent to assess the commercialisation potential of their research.	Increase commercialisation of NCSR research	Q2 2009	N/A	Mgr
Develop an entrepreneurial spirit and raise the commercial awareness amongst NCSR researchers through the provision of a focussed training on entrepreneurship and commercialisation.	Increased commercialisation & entrepreneurial spirit	Q1 2009	€2k p.a.	Mgr, CC
Establish fund to permit NCSR Researchers attend selected Trade Shows	Increase commercialisation of NCSR research	Q3 2009	€10k	U, Dir, Mgr,
Implement steps to improve Centre's engagement with industry.	Increased collaboration with Industry	Q2 2009	N/A	Mgr, CC
Provide a team building exercise for the combination of	Increased communication and teamwork	Q3	€2k	Dir/Mgr

the NCSR/LSRI administrative teams.	between administrative teams.	2009		
Clarify the mechanism for Overhead distribution to researchers who are both School and Centre-based.	Permits appropriate financial planning based on predicted overhead allocation.	Q4 2008	N/A	U/Dir/Mgr
Implement protocol for a consistent designation of affiliation to Centre/School	Increase NCSR profile	Q4 2008	N/A	Mgr
Conduct audit of roles of NCSR and LSRI administrative team	Clarify roles	Q1 2009	N/A	OVPR/Mgr
Relocate NCSR Director to R&E building.	Better visibility, communication & accessibility.	Q4 2008	N/A	Dir
Review security access and Out-of-Hours access.	Facilitate better access for researchers	Q4 2008	N/A	Mgr
Review access for NCSR researchers to Biohazard Suite.	Facilitate access for NCSR researchers to Biohazard Suite.	Q3 2009	N/A	Mgr
Establish a "message page" on NCSR webpage to post messages regarding equipment malfunction etc.	Increase efficiency in equipment use	Q4 2008	N/A	Mgr

4. SUMMARY OF THE THREE-YEAR PLAN

Dir: NCSR Director; Mgr: NCSR Manager; MC: NCSR Management Committee; CC: NCSR Commercialisation Committee; CO: NCSR Communications Officer; LSRI: Large Scale Research Initiative

Initiative	Desired outcome	Start date	Budget	Responsibility
Provision of high quality integrated space encompassing laboratories, offices and specialist space. Space should also include: <ul style="list-style-type: none"> • A dedicated lunch area/coffee bar in NCSR. The viability of such an initiative would need careful exploration/ground work. There are already a number of commercial dining outlets in proximity to NCSR. • A common area, reading room, desk space, computer access for all postgraduate researchers. • “Machine Shop” fabrication capability • Appropriate facilities for handling of biological contaminants • Teaching laboratory space for 4th level programmes 	Provision of high quality integrated space appropriate to a world class research centre	TBD	TBD	U/MC
Provision of continued maintenance/upgrades for existing equipment and provision of key items of equipment as “gap-filling” in strategically important areas for overall NCSR performance.	Provision of equipment support appropriate to a world class research centre	Q4 2009	€100k	Mgr
Use the level of commercialisation of its PIs as a key performance indicator, including patent filing, levels of industrial interaction, development of innovation partnerships and development of market reports to assess this indicator.	Raise awareness on the importance of commercialisation,	Q1 2009	N/A	Dir/MC

Collaborate with the Learning, Innovation and Knowledge Research Centre (LInK) in DCU such that LInK will evaluate the ways in which knowledge is created, managed and disseminated within NCSR.	Increase the efficiency the ways in which knowledge is created, managed and disseminated within NCSR.	Q3 2008	N/A	Mgr
Participate in industry/academia networks such as WISEN with a view to possible participation in a future Enterprise Ireland industry-driven Competence Centre	Participation in a industry-driven Competence Centre	Q3 2008	€500 p.a. WISEN membership	Dir/Mgr/MC
Organise access for NCSR members to attend specific undergraduate and post-graduate lectures to enhance their scientific expertise and transferable skills. This should include future Graduate Research Education Programme initiatives.	Enhancement of scientific & transferable skills.	Q4 2009	N/A	Mgr
Provide training and “up-skilling” specifically in the areas of Nano-medicine, Materials Science and the Environment for researchers to target opportunities e.g. Annual general conference/workshop with external/internal speakers coinciding with External Advisory Board meetings. Modules could feed into a future 4 th level initiative.	Encourage general participation in these strategically important areas.	Q2 2009	€20k p.a	U/Mgr
Engage consultant to conduct market analysis in these areas to determine commercialisation potential	Increase commercial output from NCSR	Q2 2009	€5k	Dir/Mgr
Commit to the full implementation of the University's Performance Management and Development System (PMDS) for all its personnel including researchers who are employed in the centre for two years.	Development of staff to reach their full potential. Improved Centre performance due to staff performance & development being aligned with Centre Strategic Plan.	TBD	N/A	Dir/Mgr/MC
Implement an NCSR-based induction and mentoring	Better integration of NCSR	Q4	€1k	Mgr/CO

programme for new researchers	members.	2009		
Interact, where appropriate, (and taking cognisance of national developments in this area) with the Dean of Faculty, HR and OVPR on the development of a career development framework for researchers and policy in conjunction with HR regarding short term contracts, contracts of indefinite duration, standardisation of pay scales, standardisation of titles to be applied to all researchers across the university. Specific actions to address development of a career development framework for researchers will include creation of 2 associate professor positions and creation of a number of permanent faculty positions for researchers as detailed elsewhere in this plan. As indicated above in response from university management this is not necessarily either appropriate or affordable at this time. However, opportunities may arise through the competitive SFI Stokes process.	Development of sustainable career structure for researchers.	TBD	N/A	U/Dir/Mgr
Identify and lobby for new external funding mechanisms (National And European) in order to reduce reliance on recurrent funding from the University.	Sustainability	Q4 2008	N/A	Dir/Mgr
Support planned implementation of Full Economic Costing Model.	Understanding true cost of activities as a prerequisite for sustainability.	TBD	N/A	Dir/Mgr/MC
Pursue funding through private sponsorship/endowments.	Sustainability	Q4 2008	N/A	Dir/Mgr
Fund increased administrative support through a mechanism of charging a defined percentage for all funding proposals submitted by NCSR members for administrative support.	Expand administrative support	Q4 2009	N/A	Dir/Mgr/MC
Establish at least one strategic alliance in the period 2008-2010.	Stimulate new research	Q1	N/A	Dir/Mgr

	collaborations	2009		
Investigate open access to facilities and training for non-NCSR members as an income stream.	Sustainability	Q4 2009	N/A	Dir/Mgr/CO
Identify a number of key areas for strategic recruitment and pursue through initiatives such as SFI Stokes.	Strategic development of Centre. Succession Planning.	Q4 2008	N/A	Dir/Mgr/MC
Develop a funding initiative for inter-centre collaboration	Stimulate new research initiatives.	Q4 2009	€10k	Dir/Mgr
Establish a Mentoring Programme for emerging research leaders for succession planning. It is likely that such a development should be undertaken in collaboration with OVPR and HR.	Succession Planning	Q4 2009	N/A	Dir/Mgr/MC
Establish a scheme to provide competitive bridging funding for emerging researchers	Succession Planning Retention of researchers for project continuity	Q4 2009	€100k	OVPR/Dir/Mgr/MC
Hold annual Open Day targeting both internal and external stakeholders	Market NCSR	Q1 2009	N/A	Mgr/CO
Create 4 additional NCSR-based Technical Officers Indirect costs operated through the OVPR provide technical support on a faculty basis which may be drawn on by the NCSR. Specific NCSR posts are unlikely.	Provide technical support appropriate to a world class research centre	Q4 2009	€200k p.a.	OVPR/Dir/Mgr/MC
Develop models for specialist equipment support and access sharing across LSRI's, Schools and Faculties Equipment Maintenance Call currently operated annually by the OVPR is operated on a competitive basis.	Maximise efficiency in access & support	Q1 2009	N/A	Mgr
Provide advanced level training in specialist equipment items for members	Maximise efficiencies in equipment usage	Q2 2009	€8k p.a.	Mgr

Implement a Centre-wide calendar which is used by all NCSR members	Improve communication between members	Q1 2009	N/A	Mgr
Perform regular research reviews to capture aggregate IP output across NCSR.	Maximize IP capture	Q4 2009	N/A	Mgr/CC

APPENDICES

1. Unit Quality Committee (for the Self-Assessment Report)

Prof. Dermot Diamond	Centre Director (Chair)
Dr. Jackie Glynn	Co-ordinator (Centre Manager)
Ms. Mary Comiskey	Administration & Technical Support
Dr. Dermot Walls	NCSR Academic Representative
Dr. Keith O'Neill	Biomedical Diagnostics Institute Representative
Mr. Kieran O'Dwyer	Centre for Bioanalytical Sciences Representative
Dr. Tony Killard	Senior Researcher Representative
Dr. Blánaid White	Postdoc Community Representative
Mr. José Garcia Cordero	Postgrad Community Representative
Ms. Edwina Stack	Postgrad Community Representative

2. Peer Review Group

Chair:

Professor Roger Whatmore,
CEO, Tyndall National Institute, Cork, Ireland

Professor Joseph Wang,
Director, Centre for Bioelectronics & Biosensors, The Biodesign Institute, Arizona
State University, USA

Mr. Eoin Sweeney
Manager, Discovery Programme, Marine Institute Headquarters, Rinville, Oranmore,
Co. Galway, Ireland

Professor Michael Cronin
Director, Centre for Translation and Textual Studies, School of Applied Languages
and Intercultural Studies, Dublin City University, Ireland

Rapporteur:

Dr. Enda McGlynn
Senior Lecturer, School of Physical Sciences, Dublin City University, Ireland

3. Unit Quality Committee (for the Quality Improvement Plan)

Prof. Dermot Diamond	Centre Director
Dr. Jackie Glynn	Co-ordinator (Centre Manager)
Dr. Dermot Walls	NCSR Academic Representative
Dr. Keith O'Neill	Biomedical Diagnostics Institute Representative
Mr. Kieran O'Dwyer	Centre for Bioanalytical Sciences Representative
Dr. Tony Killard	Senior Researcher
Dr. Blánaid White	Postdoc Community Representative
Mr. José Garcia Cordero	Postgrad Community Representative
Ms. Edwina Stack	Postgrad Community Representative