

Quality Assurance / Quality Improvement  
Internal Quality Review Programme  
2010-2016



**Quality Improvement Plan**

**National Centre for Plasma Science and  
Technology (NCPST)**

*23 October 2013*

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## **1. INTRODUCTION**

Having read and considered the Peer Review Group Report, a Quality Improvement Plan (QuIP) Working Group has been charged with developing a QuIP for the National Centre for Plasma Science & Technology. The Working Group consists of the Director, NCPST – Professor Miles Turner, NCPST Interim Centre Manager – Ms Sue O’Neill and members of the NCPST Core Team – Sheila Boughton, Sarah Hayes, Fiona Farrell, NCPST Education & Outreach Officer – Dr Jim Conway and representatives from NCPST postdocs – Dr Niall O’Connor and NCPST postgraduate students – Mr Thomas Kelly. The final QuIP presented here represents the deliberations of the Working Group.

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

The NCPST are very happy with the outcome of the Peer Review Group Report and concur with the recommendations of the Group. The Centre found the process of the SAR very helpful not only to gather the information required but to take an overall view of the strengths and weaknesses of the NCPST and identify opportunities for improvement.

The NCPST feels that the PRG has broadly identified similar strengths and weaknesses of the NCPST as reflected in the SWOC analysis produced in the SAR. The NCPST has identified key strengths, as excellent access to resources, a dedicated and experienced team, an excellent research environment both in fundamental and applied science and good academic/industry collaboration. Key weaknesses identified are, poor communication, uncertainty regarding contract renewals related to the issue of on-going funding availability and no centralised offices. The PRG Report is broadly in line with this and has made recommendations based on these findings and has also identified career development for researchers as an important area to be addressed under the QuIP Working Group. The team have responded with actions to address the various recommendations.

In respect of actions relating to improvements in communication and career development, it is proposed to address these issues on a continuous basis through a forum of Business Briefings which will be open to all members of the Centre to contribute with invitations to input to the agenda on a quarterly basis. The table below details the NCPST response to each recommendation of the QuIP.

## 2 Recommendations for Improvements in NCPST

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 Area.

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

A: Area under review

U: University Senior Management

Recommendation Number	Addressee	Priority	PRG Recommendation (Provided in PRG Report)	NCPST Response	University Response
			<b>Communications</b>		
1	A	P1	Ensure that there are regular, scheduled, at least 6 monthly, meetings of PIs chaired by the NCPST Director	Actions on this recommendation have already begun. The first of six planned monthly meetings took place in June 2013.	

Recommendation Number	Addressee	Priority	PRG Recommendation (Provided in PRG Report)	NCPST Response	University Response
3	A	P1	Improve the website to include publications, invited conferences. Also update personal pages, including photos of staff and students to improve visibility and encourage communications and contact between NCPST members	<p>We fully agree with this recommendation and to address it we propose setting up an Editorial Board to oversee the NCPST website. It will be representative of all members of the NCPST.</p> <p>The plan is to complete all required improvements to the website by October 2014.</p>	
4	A	P1	Improve internal online access to documents relating to management issues such as agenda, minutes, budgetary decisions etc.	We agree with this recommendation and propose to set-up a Dropbox to provide online access to minutes of NCPST Management Committee & PI 6 monthly meetings. This should be completed by the end of 2013.	
6	A	P3	Develop the use of DCU facilities such as DORAS to improve international visibility	We recognise the importance of DORAS and agree to promote the use of DORAS amongst NCPST members.	
			<b>Skills and Career Development</b>		
2	A	P2	Provide more mentoring and information for postgraduate and postdoctoral students in relation to international and industrial employment opportunities	The NCPST is aware of the need to provide mentoring and information for postgraduate and postdoctoral students. Bi-Monthly Business Briefing sessions will be established by the end of 2013 to which all NCPST members will be invited. These sessions will be a forum for members to discuss new ideas, receive updates on employment opportunities and funding calls. Guest speakers will be invited to attend for short presentations. NCPST will also engage with the DCU Careers Service in addressing this recommendation.	

Recommendation Number	Addressee	Priority	PRG Recommendation (Provided in PRG Report)	NCPST Response	University Response
8	U	P2	Implement fully the DCU Research Career Framework across the Centre and include for engagement with industry.	The NCPST supports this recommendation and will work with the HR Department and relevant faculties to implement this recommendation.	The DCU Research Career Framework has been successfully implemented in one of the University's Faculties with the full support of the Human Resources (HR) Department. The Faculty of Science and Health is currently embracing the Framework and the NCPST will be included in the process and will benefit from both experience gained within DCU and the support of HR.
9	A	P3	Provide proposal writing training for researchers	NCPST supports this recommendation and we will investigate what options are available through the Research & Innovation Section and DCU Training Department. We will also investigate customised training where possible.	
			<b>Outreach and Development</b>		
5	A	P1	Exploit the diversity of scientific interests to explore/create new research themes and commercial activities	The NCPST fully endorses this recommendation and had already started the process of hosting a conference on 14/15 November 2013 – Plasmas as a Platform. This will be an opportunity for the NCPST to showcase its expertise in targeted sectors and invited industry in order to explore potential collaboration. A poster session/technology showcase is also proposed.	
12	A	P2	Extend the DCU Business School initiative across the Centre so that all members of NCPST are trained in thinking about how businesses can be developed.	The NCPST supports this recommendation and It proposes to establish Bi-Monthly Business Briefing sessions to which all NCPST members will be invited. Guest speakers will be invited to attend for short presentations. Initial suggested speakers Teresa Hogan, Business School, INVENT and speaker on Business Start-Ups, EI on commercialisation.	

Recommendation Number	Addressee	Priority	PRG Recommendation (Provided in PRG Report)	NCPST Response	University Response
7	A	P1	Identify ongoing knowledge transferred to industry and the value, financial and otherwise, placed on it.	The NCPST agrees with the recommendation and proposes to establish Bi-Monthly Business Briefing sessions to which all NCPST members will be invited. Guest speakers from industry with technology experience will be invited to attend for short presentations. Initial suggested speakers include David Gahan, Impedans, Intel, Sonex, Enbio and others – ex DCU students.	
10	A	P1	Engage with EI to identify opportunities to support the important work of the business development manager.	The NCPST agrees with the recommendation and in addition to setting up regular meetings with EI the Business Development Manager will also set-up regular meetings with DCU's invent.	
11	A	PI	Map strong platform technologies from across the Centre onto industry in Ireland in order to inform activities of the business development manager.	The NCPST supports this recommendation and proposes to develop case studies for research areas and topics that are targeted to industry. These will be promoted externally via video presentations, and social media including LinkedIn and blogs.	
			<b>Human Resources &amp; Facilities</b>		
13	U	P2	Appoint a Scientific Director for a defined term along with a Senior Administrator.	We agree with this recommendation and will work with the University to review the situation.	The University agrees with the recommendation concerning the Scientific Director, provided that the efficient management of the Centre is ensured at all times. The governance of centres such as NCPST remains under review but this process should be manageable before that review is complete. In the case of the Senior Administrator, the governance review and the concomitant issue of financial supports will determine the feasibility of this appointment.

Recommendation Number	Addressee	Priority	PRG Recommendation (Provided in PRG Report)	NCPST Response	University Response
14	U	P2	Allocate increased space for labs/machinery	This recommendation addressed to the University is supported by NCPST.	Space is managed in the first instance by the Faculty and where additional space may be required that cannot be found within the existing Faculty space envelope, a formal submission to the University Space Management Committee can be made. In the context of the wider Campus Development Plan, new infrastructure is planned to cater for the growing research and education needs of the DCU Community. Finally, the new Nano-Bioanalytical Research Facility (NRF) will be completed in 2014 which will allow for some reconfiguring of labs and major research infrastructure in the Nanotechnology area, which encompasses some aspects of the NCPST.
15	A/ U	P3	Improve physical environment to encourage closer informal contacts and communications among staff and students.	The physical space in the University is at a premium and this would be difficult. However the NCPST regularly reviews its physical environment and will continue to do so.	As outlined above, space requirements and needs are managed in the first instance by the Faculty. Where additional space may be required that cannot be found within the existing Faculty space envelope, a formal submission to the University Space Management Committee can be made.



### 3. SUMMARY OF THE ONE-YEAR PLAN

#	Action	Timeline	Lead
A-1	Set-Up 6 monthly meetings with Principal Investigators, chaired by Centre Director	June 2013	Professor Miles Turner
A-2	Set-up Bi-Monthly Business Briefing Sessions for all NCPST member	October 2013	Sue O'Neill/Sheila Boughton
A-3	Create an Editorial Board to oversee NCPST Website	September 2013	Sue O'Neill/Sheila Boughton
A-4	Improve internal online access to documents by using Dropbox	October 2013	Sue O'Neill/Sheila Boughton
A-5	Plasmas as a Platform Conference	14 – 15 November 2013	Professor Miles Turner/Sue O'Neill

### 4. SUMMARY OF THE THREE-YEAR PLAN

#	Action	Timeline	Lead
B-1	Complete overhaul of NCPST website, newsletters, publications etc.	October 2014	Sue O'Neill/Sheila Boughton
B-2	Develop academic skills/life skills/professional development skills for postgraduate and postdoctoral students	November 2015	Sue O'Neill/Sheila Boughton
B-3	Develop a strategy to exploit the diversity of scientific interests to explore/create new research themes and commercial activities	November 2014	Sue O'Neill
B-4	Carry out a review of the physical space allocated to the NCPST with a view to improving the physical environment.	January 2015	Sue O'Neill/Sheila Boughton
B-5	Carry out a review of the space allocated to labs/machinery with a view to increasing that space	November 2015	Sue O'Neill/Conor Murphy

## **APPENDIX 1 NCPST Quality Committee (for the Self-Assessment Report)**

Professor Miles Turner, NCPST Centre Director

Dr Stephen Daniels, NCPST Executive Director

Dr Claire McKenna, Administrator (Chair of Quality Review Committee): Claire left the NCPST on 30 January 2013 to take up a new post with the Biomedical Diagnostics Institute, DCU

Ms Samantha Fahy, NCPST Centre Manager (Chair) – Review Coordinator after January 2013

Ms Sheila Boughton, NCPST Administrator

Dr Anne Louise Holloway, Research Coordinator (until January 2013). Anne Louise left the NCPST at the end of January 2013 to take up a new post with the Research and Innovation Support Office, DCU

Dr Dermot Brabazon, Academic, School of Mechanical & Manufacturing Engineering

Dr Lampros Nikolopoulos, Academic, School of Physical Sciences

Dr Niall O'Connor, Research Staff Representative

Mr Thomas Kelly, Postgraduate Student Representative

Mr Conor Murphy, NCPST Technical Officer

## **APPENDIX 2 Peer Review Group Members**

Professor Bill Graham (Chair), Director, Centre for Plasma Physics (CPP), School of Mathematics and Physics, Queens University Belfast

Dr Pascal Chabert, Vice-Director of the Laboratoire de Physique des Plasmas, France

Mr Conor Sheehan, Operations Manager TTS12 & cTTO, Enterprise Ireland

Dr Francesco Cavatorta, (Rapporteur), DCU School of Law & Government

Dr Eithne O'Connell, DCU School of Applied Languages & Intercultural Studies

## **APPENDIX 3 Area Quality Committee (for the Quality Improvement Plan)**

Professor Miles Turner, NCPST Centre Director

Ms Sue O'Neill, NCPST Centre Manager

Ms Sheila Boughton, NCPST Administrator

Ms Sarah Hayes, NCPST Administration

Ms Fiona Farrell, NCPST Administration

Dr Jim Conway, NCPST Education & Training Manager

Dr Niall O'Connor, Research Staff Representative

Mr Thomas Kelly, Postgraduate Student Representative

Mr Conor Murphy, NCPST Technical Officer

## **APPENDIX 4 Prioritised Resource Requirements**

<b>Project Title</b>	<b>Cost Estimate</b>
Support for "Plasmas as a Platform Conference (November 2013)	<b>€5,000</b>
Purchase of Plasma TV, brackets etc. Installation in NCPST Reception area	<b>€1,800</b>
Video Communication Technology clips to highlight specific plasma technology applications to market sectors	<b>€800 x6 = €4,800</b>
Support for speakers for Bi Monthly Business Meetings	<b>€1,500 x 3 years = €4,500</b>
Support for integration of social media onto NCPST website and staff training	<b>€2,000</b>

**Full proposals for these prioritised resource requirements were provided to the Director of Quality Promotion.**