

Dr Mike Sargent
Chair
NCRIS Committee
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16 August 2006

Dear Dr Sargent,

NCRIS Recommended Funding for Characterisation Neutron Scattering - ANBUG Response

ANBUG, the Australian Neutron Beam Users Group [1], would like to comment on the Indicative Funding announced recently for the Characterisation Capability by the NCRIS Committee. In particular, as the representatives of the 300 or so Australian scientists and engineers who use neutron scattering in their work, the ANBUG Executive would like to provide you with feedback on the neutron community's reaction and response to the funding allocation identified for the Neutron Scattering sub-capability.

- The reaction of the neutron community can be summarised as one of disappointment. Given that all of the methods in the Characterisation Capability are enabling sciences which underpin a wide range of fields and disciplines, there were expectations for a higher level of total funds for the Characterisation Capability, particularly Neutron Scattering.
- Members of the neutron community engaged fully the processes instituted by Professor Simon Ringer as Facilitator of NCRIS Capability 5.3 Characterisation and were prominent participants at all forums, meetings and workshops. While the community is pleased to learn of the proposed allocation of \$3.3M for the deuteration facility, there appears to be no budget allocation for the other key items identified by the community and presented in Table 7 of the Planning Update document [2].
- OPAL represents the largest single investment in Science ever made by an Australian Government. It is crucial to note that only 9 of the anticipated 18 instruments for OPAL are fully funded at this stage. By comparison, FRM-II, Munich, Germany the World's most modern research reactor began operation in 2005 with its full complement of 19 instruments operating or close to operation [3].
- Given the dated age and limited performance capabilities of HIFAR (commissioned in 1957), the Australian neutron scattering community has consistently performed at an extremely high level in the international field of neutron scattering. Apart from the specific indicators presented already [2], a ready measure of the quality of Australia's research in neutron scattering was the award of the International Conference on Neutron Scattering to Australia in 2005. The latest in this series of four-yearly meetings (ICNS2005, Sydney, 27 November-2 December 2005) was organised entirely by the Australian neutron community and proved a resounding success with 738 delegates, of whom the vast majority (around 600) attended from overseas. The ICNS2005 Proceedings of refereed publications will be published in two volumes of the international journal Physica B in October 2006 with the next in this series of ICNS conferences to be held in the USA in 2009.

- As outlined in [2] a new split cold guide at OPAL will enable development of two further instruments which will extend significantly the range of experiments, particularly in the field of neutron spectroscopy, currently unavailable at OPAL. The overwhelming reaction of the neutron community is that failure to fund this initiative means that a unique opportunity to advance the nation's research infrastructure capabilities has been lost.
- Access, both on a national and an international scale is an issue of continuing concern to the neutron community. This issue was raised repeatedly, perhaps *ad nauseum*, by colleagues at various Characterisation forums and remains of central import. Regardless of the quality of infrastructure facilities, they remain intrinsically worthless without funds to allow users, who have qualified on a competitive peer-reviewed basis, access to these facilities. We understand that the Australian Institute of Nuclear Science and Engineering (AINSE) plans to submit their response to you in which they present data in support of their argument for enhanced funding levels for national access and international access.

While we realise the funding limitations imposed on the NCRIS Committee, we argue strongly for the need for increased funding in the Characterisation Capability, particularly in the Neutron Scattering sub-capability with funding for a new split cold guide at OPAL and access as argued in the Planning Update Document [Table 7, 2].

Yours sincerely,

Stewart Campbell, President, ANBUG (UNSW at ADFA)
(replies to < stewart.campbell@adfa.edu.au > please)

Craig Buckley, Vice-President (Curtin University)

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Cc

Professor Simon Ringer, Facilitator, NCRIS Capability 5.3 Characterisation;

Members, Characterisation Reference Group (Stewart Campbell, Richard Garrett, John Kelly, Roger Smart, Kath Smith);

Professor John White, President, AINSE;

Dr Rob Robinson, Leader, Bragg Institute, ANSTO

[1] The Australian Neutron Beam Users Group, ANBUG < <http://www.anbug.org/> >

[2] Simon P Ringer, Planning Update NCRIS Capability 5.3 Characterisation
< <http://www.ncrischaracterisation.org.au/> >

[3] Forschungsneutronenquelle Heinz Maier-Leibnitz (FRM-II) < <http://wwwnew.frm2.tum.de/> >