

National Committee for Chemistry
(Australian Academy of Science)

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Ms Clare McLaughlin, General Manager
Research Infrastructure and Science Policy Branch
Department of Innovation, Industry, Science and Research
GPO Box 9839
CANBERRA ACT 2601

Via email: Roadmap2011@innovation.gov.au

Dear Ms McLaughlin,

Response to 2011 Strategic Roadmap for Australian Research Infrastructure Exposure Draft

The National Committee for Chemistry (NCC) welcomes the opportunity to comment on the 2011 Roadmap Exposure Draft. In general, the NCC applauds the broad scope of the Roadmap with its emphasis on predictable continuity of funding and the fostering of a collaborative research culture.

Modern research will increasingly require collaborations between scientists from several fields, *inter alia* chemists, molecular biologists, materials scientists, mathematicians, and engineers. It is important that the national infrastructure facilities that will support such research efforts be adequately staffed. We are pleased to note that the Exposure Draft mentions the need for personnel expertise and technical know-how in several places. It is of the greatest importance that sufficient technical staff be appointed on an ongoing basis to operate and maintain the facilities and give technical support to users. Consideration should be given to developing better career paths for technicians, which would have to include better job security and attractiveness. This need is also identified in the Hon Kim Carr's document *Research Skills for an Innovative Australia* (19.4.2011), in which shortages of science PhD students and technical staff are addressed.

It will also be important that funds be provided for the ongoing maintenance of the facilities. Since high-technology equipment becomes outdated rapidly, there will be a constant need for capital outlays to upgrade the facilities.

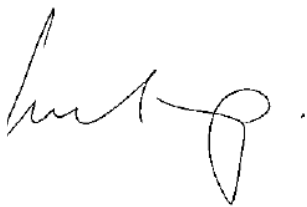
The Exposure Draft asserts the desirability of two-way international collaborations – for Australian scientists to access facilities overseas, and for foreign scientists to access

facilities here. The NCC is in total agreement with this, as we believe open collaboration is essential for the progress of science. Therefore, the NCC is deeply concerned that the International Science Linkages program, which gave access to large overseas facilities, has been terminated. This will be to the detriment of Australian science.

Some aspects of the Roadmap are concerned with research and development near the applied end of the spectrum such as fabrication, clinical testing, and sensors. While such R&D is highly important, we emphasise the need to support pure research in e.g. biology, chemistry, physics and mathematics.

Infrastructure investments in analytical techniques such as Nuclear Magnetic Resonance (NMR) spectroscopy, mass spectrometry, electromagnetic spectroscopies, the Australian Synchrotron, X-ray crystallography, neutron diffraction, microscopy, and data analysis will underpin much fundamental and applied research in chemistry, molecular biology, and materials science.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Curt Wentrup', with a stylized flourish at the end.

Professor Curt Wentrup, FAA
Chair, National Committee for Chemistry
Australian Academy of Science