



Australian Academy of Science

Ian Potter House, Gordon Street, Canberra 2601

NATIONAL COMMITTEES FOR SCIENCE National Committee for Mechanical Sciences

2011 BUSINESS PLAN or WORK PLAN Including TIMELINES for up to 5 years

It is anticipated that this Plan would provide information on:

- Aims of this National Committee
- Strategies to allow these aims to be achieved. Eg engaging to a greater extent with the secondary and / or tertiary education sectors; promoting the benefits of your discipline to the Australian community; strengthening relationships with scientific societies; contributing to policy development; facilitating international engagement by Australian scientists
- Plan of work/activities for up to 5 years including timelines
- Proposed budget details (Please use the attached spreadsheet)

Note each National Committee is allocated:

- \$3,000 per annum to support committee meetings.
- Up to \$2,500 each for up to three approved voting delegates, upon presentation of a report and receipts/invoices, for attendance at the triennial/quadrennial General Assembly meetings of the corresponding International Union.

Progress against these identified Work Plan activities will be reported on in the Chairs' annual reports to the Academy. Work Plans for 2010 can be viewed at www.science.org.au/natcoms

Note: This plan will be published on the National Committee page of the Academy of Science website www.science.org.au/natcoms.

Please complete and return this form by 14 January 2011 to:

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1. Aims of this National Committee:

The aim of the National Committee for the Mechanical Sciences is two fold. Firstly it provides a linkage through the Academy to the International Union of Theoretical and Applied Mechanics and the International Federation for the Promotion of Mechanisms and Machine Science. This active international engagement serves to provide a high visibility at the international level of Australia research and researchers in these two disciplines. The second role of the committee is to engage with its broad constituency through both formal and informal linkages with a range of scientific and engineering professional societies within Australia.

2. Strategies to allow these aims to be achieved.

As noted in this years Annual Report from the NC the current membership of the NC sees an opportunity to strengthen its role as a voice for Engineering Science in Australia, and also to provide a voice for Engineering Science within the Academy. The members of the NC promote and support the aims of the NC through a wide range of activities, including active engagement in international meetings and scientific societies within their respective disciplines, as well as strong linkages into local professional societies. The NC has however identified a number of strategies that we believe will improve the NCs ability to more actively contribute to promoting the disciplines within Australia. These make up our work plan for 2011.

1. Plan of work/activities for up to 5 years including timelines

As noted in my report the NC is currently drafting a recommendation to go before Exec. Comm. to change both the name and structure of the NC for the Mechanical Sciences. The current NC, which came together from the amalgamation of two long standing NC of the Academy, has the potential to cover a much broader discipline area, namely Engineering Science, and one in which represents a more modern view of research and teaching into the broad are of modern engineering and technology. The proposal will also recommend an expanded committee, taking into account the broader discipline base and one in which membership has strong linkages into relevant Australian professional societies. Particularly important in this regard is to identify future leaders in the field and provide them an opportunity to contribute to the broad discussion concerning the role and place of engineering science in Australia.

A major part of the work for the NC in 2011 will therefore be developing a new structure (assuming of course that the proposal that goes forward to Exec. Comm. regarding a restructure is approved). The NC is also very keen to develop a series of early career "National Committee" awards that allow the Academy, through the NC, to recognise the work of outstanding younger researchers in the field. A formal proposal will be developed and put forward to the NC.

As part of our longer term work plans, the new committee provides the opportunity to engage with the broader scientific community and both contribute to and influence policy by bringing to bear the collective knowledge base within the engineering science discipline on some of the challenges facing Australian society. This is best done through a series of symposia bringing together leading Australian and international experts to explore some of these challenges. We



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therefore propose to arrange the first NC for the Mechanical Sciences (under the banner of the new NC for the Engineering Sciences) workshop on *An engineering science response to climate variability* in 2012. This workshop will provide a forum to consider the challenges faced by the increasing climate variability experienced within Australia and how the broad field of engineering science can be brought to bear to provide solutions to some of these challenges. A more detailed proposal will be developed. However for the sake of this work plan we will request financial support from the Academy as well as the use of the Shine Dome (at a date and time to be determined in consultation with Academy staff) in 2012. A second symposium would be organised in 2014 (and then subsequently every two years). Full details of subsequent symposia will make up part of the work plan for the NC during 2011 and 2012.

2. Proposed budget details (Please use the attached spreadsheet)

Please see attached.