

Committee:	National Committee for Mechanical and Engineering Sciences
Period covered:	1 July 2013 – 31 December 2015
Chair:	Professor Ivan Marusic
Version and date:	EXCOM approved

Purpose / context	<ol style="list-style-type: none"> 1. To connect the Academy to science and scientists in Australia; 2. To link the Academy to Australian scientific societies in order to work together to promote the development of the discipline; 3. To link Australian science in the disciplines to world science, in particular through the membership of appropriate international organisations; 4. To ensure that Australia has a voice and a role in the global development of the disciplines; 5. To provide strategic science policy advice, to the Academy, as input to Academy science policy statements, and (with the approval of the Executive Committee of Council) to the Australian Government and Australian organisations. 6. Advise the Council of the Australian Academy of Science on the award of the John Booker Medal for Engineering Science.
Description and objectives	<p><i>(Description, purpose and benefits of the National Committee)</i></p> <p>The NC Mechanical and Engineering Sciences is a committee of the Council of the Australian Academy of Science. The broad aims of the committee are to foster Engineering Science and Mechanics in Australia, to link the Academy to scientists in this area and relevant scientific societies, and to serve as a link between Australian and overseas scientists, for example through the International Union for Theoretical and Applied Mechanics (IUTAM) and the International Federation for the Promotion of Mechanism and Machine Sciences (IFTOMM).</p>
Coverage	<p><i>(To be informed by the report of the Review Committee, with others as necessary)</i></p> <p>Solid and fluid mechanics, rheology, aerodynamics, multi-scale mechanics, computational mechanics, mechanics of materials, biomechanics and biomechanical engineering, structural mechanics, geomechanics, rock mechanics, dynamical systems and control, robotics and mechatronics, micromachines, multi-body dynamics, reliability, materials processing, materials handling, geophysical and environmental mechanics, sustainable energy systems, infrastructure engineering, transportation engineering, tribology, hydraulics, hydrology, fire engineering, chemical sciences and engineering, mineral processing.</p>

Linked international organisation	<ul style="list-style-type: none"> • International Federation for the Promotion of Mechanism and Machine Sciences (IFTToMM) • International Union for Theoretical and Applied Mechanics (IUTAM)
Key connected organisations	<p><i>(List international unions, Australian scientific societies, other national committees, etc)</i></p> <p>Links to other National Committees: Mathematical Sciences, Materials Science, Earth Sciences, Information and Communication Sciences.</p> <p>Australian Societies and Organisations: Australasian Fluid Mechanics Society, Australian Academy of Technological Sciences and Engineering, Australian Association of Computational Mechanics, Australian Computer Society, Australian Geomechanics Society, Australian and New Zealand Industrial and Applied Mathematics, Australian and New Zealand Society of Biomechanics, Group of Eight Engineering Deans, Institution of Engineers Australia.</p> <p>International Organisations: International Union of Theoretical and Applied Mechanics (IUTAM), International Federation for the Promotion of Mechanism and Machine Science (IFTToMM).</p>
Key outcomes	<p><i>(Activities and projects. In addition, reference should be made to:</i></p> <ul style="list-style-type: none"> • <i>communication and interactions with various parties, with suggestions on how this can be done; and</i> • <i>obtaining resources to assist with outcomes and with international subscriptions.</i> <p><i>Please refer to the report of the Review Committee.)</i></p> <ol style="list-style-type: none"> 1. Approved committees structure and membership (annual); 2. Approved annual report (annual); 3. Engagement with Australian engineering scientists by contributing news items to society publications, and seeking opportunities to discuss NC activities at general meetings of the societies; 4. Engagement with relevant Australian societies and organisations, including inviting representatives of relevant societies as observers to NC meetings, and seeking opportunities to provide a regular statement on NC activities to such organisations; 5. Engagement with relevant national committees on issues of common interest; 6. Engagement with IUTAM, IFTToMM and other international organisations, including nomination of members of IUTAM committees, and of delegates at IUTAM and IFTToMM General Assemblies, and consultation with Australian members of Commissions, Working Groups, Committees and Councils;

	<p>7. Follow up and complete details in relation to the John Booker Medal in Engineering Science (Academy of Science) and the Sir John Monash prize (ATSE).</p> <p>8. Identification of nominees for the John Booker Medal in Engineering Science (annual);</p> <p>9. Work towards establishing a Decadal Plan in the area of Engineering Science;</p> <p>10. Obtaining financial and other resources to assist in the delivery of its activities, including contributions to the Australian subscriptions to International Organisations.</p>
Indicative budget	<p><i>(\$3000 provided per annum / \$2500 per ISU meeting. Include all other activities.)</i></p> <ol style="list-style-type: none"> 1. \$3000 per annum for meetings provided by AAS 2. Up to \$2500 provided by AAS to support attendance at international meetings of: <ul style="list-style-type: none"> • IFToMM (2015) • IUTAM (2014) 3. \$300,000 being raised for the John Booker Medal in Engineering Science and the Sir John Monash prize with ATSE. 4. \$500 has been raised through the Australasian Fluid Mechanics Society towards the IUTAM subscription
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Approved by / date	