FASTS Federation of Australian Scientific and Technological Societies

**FASTS' Submission to HEEF Advisory Board**

**Higher Education Endowment Fund (HEEF) consultation paper**

**7 December 2007**

Thank you for inviting the Federation of Australian Scientific and Technological Societies (FASTS) to comment on the HEEF consultation paper.

FASTS is the peak representative body for 60 professional science associations and collectively represents 60,000 working scientists and technologists.

FASTS have previously commented on HEEF in our submission and evidence to the Senate Standing Committee on Employment, Workplace Relations and Education inquiry into the provisions of the two relevant Bills.[1] Many of the concerns we outlined then still hold, such as HEEF becoming a substitute for a multitude of existing programs, and Ministers not being required to provide any explanations for them acting contrary to expert advice.

FASTS believes that the change in Government provides an opportunity to rethink the approach of HEEF.

In summary, FASTS believes the state of teaching and research infrastructure in Australian universities needs a major overhaul. The likely quantum of funding available from HEEF is not going to be remotely adequate to bring Australian institutions up to global standards.

While some funding is better than none, we are concerned that HEEF will simply add to the 'boiling frog' scenario that has prevailed for the past decade or more. Accordingly, we recommend that the funds in HEEF be used in totality over the next 5 – 8 years to assist the sector remain in touch with global competition.

**Change in the political and policy environment**

In considering HEEF it is important to note the changing policy environment. In our judgement, the $6 billion provided by the previous Coalition Government to establish HEEF was a function of the need to deal with a budget surplus rather than the needs of higher education *per se*.

[1] Refer committee Hansard 31 August 2007 and Sub No. 6
http://www.aph.gov.au/Senate/committee/eet_ctte/highered_endowment07/submissions/sublist.htm

To be blunt, even the more optimistic evaluations of the quantum available for allocation each year from HEEF, fall well short of addressing the systemic problems of under-resourcing of infrastructure, large facilities and on-going maintenance.[2]

For example, DEST, in their December 2006 submission to the Productivity Commission's draft research report on *Public Support For Science And Innovation* noted deferred maintenance in the higher education sector of $1.5b.[3]

Investment in research infrastructure in Australia is not internationally competitive. The Research Infrastructure Block Grant (RIBG), for instance, is explicitly limited to providing 20 cents in the dollar of total competitive funds, which is well below UK, USA and European analogues of 40 – 45 cents.

There have been significant and well documented increases in public investment in universities and R&D in China, Europe and the USA in recent years.

For example, President Bush signed the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act 2007 on August 9, 2007.

The America COMPETES Act and other legislative and budget appropriations are a response to *Rising Above The Gathering Storm*; the US National Academies' important analysis of global and US science, technology and innovation issues.[4]

Measures include;

- Commitments to near-term doubling of research funding at the National Science Foundation (NSF), National Institute of Standards and Technology (NIST) and Department of Energy (DOE) Office of Science.
- Establishes the Advanced Research Projects Agency for Energy (ARPA-E) at DOE to engage in high-risk, high reward energy research.
- Expands early career grant programs and additional support for outstanding young investigators at both NSF and DOE
- Strengthens interagency planning and coordination for research infrastructure and ICT requirements
- Commits to doubling the Manufacturing Extension Partnership (MEP)

FASTS are not advocating that Australia should simply replicate US policy. Our geography and demography necessitate a different focus in our research commitments and policy to that of the US, China or even the UK or Canada. However, we cannot continue to ignore the

---

[2] FASTS notes with particular concern the evidence of Bruce Gregor to the Senate Inquiry on the conservative nature of the fund may see lower yields than expected or even nil yields in the early years. Refer Bruce Gregor, Mercer Investing Consulting, *Committee Hansard,* 31 August 2007, p. 10

[3] DEST, *Response to the Productivity Commission's Draft Research Report on Public Support for Science and Innovation*, (Submission N0. DR205), p. 5

[4] www.nationalacademies.org/gatheringstorm

reality of increasing competition and investments in science and research. If Australia is to access and leverage global knowledge, it needs world-class capabilities to bring to the table.

Accordingly, we believe the incoming Government needs to consider whether HEEF is an appropriate response to the pressure on universities in this international climate.

**Inefficiency and opportunity cost of funding programs**

A negative feature of recent policy and financing trends in higher education is the growing use of high overhead competitive grants for relatively small programs.

While competitive grants must be retained in, for example, large ARC and NHMRC programs where excellence is a fundamental criterion, FASTS believes the opportunity cost and inefficiencies of micromanagement through leveraged competitive grants needs attention.

The incoming Labor Government has previously announced it would move to compact funding, which presumably would include aggregating some programs into a negotiated block grant.

If that is the case, then one option is for the HEEF quantum to be rolled into the compact using simple allocative metrics.

Alternatively, if there is rationalisation and a significant reduction of opportunity and real administrative costs for the sector, then there may be a case for using all of HEEF to provide strategic funds of $5m - $20m on a competitive basis, to upgrade significant infrastructure in areas of national importance that may not be well served by existing programs or allow for specific infrastructure.

However, if existing funding mechanisms are retained in the short-medium term, then FASTS reiterates our previous position that 50% should be allocated as a block grant and 50% on a contestable basis.

For the block grant component FASTS believes it should be allocated using a simple composite index including

- student load in priority areas of education, science, engineering and nursing (and other priorities if and when they are identified by the Government);
- success in the IGS/RTS and/or National Competitive Research Grants, and
- success in knowledge transfer metrics.

Such an approach will give universities some notion of likely income in the medium term and thus they will be better placed to make thoughtful investments.

The balance of the HEEF allocation should be for competitive grants for capital and research infrastructure projects. To ensure proper process, publication of consistent, clear, selection criteria will need to be publicly available well before each selection round.

FASTS believes that competitive grants from the fund could have a strategic focus – including enhancing institutional differentiation/diversity; supporting research in niche areas that otherwise may not be supported by existing National Competitive Grants Schemes; providing specialised teaching and learning environments; investments in 'proof of concept' infrastructure and so forth.

However, we re-iterate, that the likely quantum of funding from HEEF as outlined in the existing legislation will only cover a small fraction of the range of very worthwhile projects and refurbishment that is needed.

**Philanthropic Support**

FASTS agrees that developing a stronger philanthropic culture to support higher education and research is a worthy goal. FASTS has no specific expertise in this field but notes that the strong philanthropic tradition in the US is a function of the intersection of culture and tax arrangements over centuries.

FASTS are sceptical that HEEF will make any substantial contribution to developing more philanthropic support for higher education or research. We would be surprised if private donors would be interested if they are not able to specify purpose and/or recipients with the enhanced prospects for public recognition. Moreover, HEEF offers nothing above existing arrangements in terms of tax treatment and less flexibility in terms of purpose.