



## **Submission to Evaluation of Knowledge and Innovation Reforms**

QUT welcomes the opportunity to provide input to the Evaluation of the Knowledge and Innovation reforms. The importance of Research Block Funding to Universities as an enabling mechanism in their contribution to the National Innovation System, and to the nature of the Higher Education system in general, cannot be underestimated. Following the introduction of the Knowledge and Innovation reforms, it is clear that this Block Funding is not an “as of right” grant to universities, rather it is contested and based on performance and outputs. This being the case, there is now a critical need for higher levels of Government investment in university research block funding, including funding for research infrastructure and for research training places in particular.

### **General comments:**

In general terms, QUT is of the view that the overall objectives of the Institutional Grants Scheme, the Research Infrastructure Block Grants Scheme and the Research Training Scheme are appropriate.

However, the longer term effects on certain disciplines of application of the current formulae, with such a heavy weighting on research income as a driver, must remain a matter of concern. An over-reliance on the research income in the formulae can produce unanticipated, negative consequences for the overall research effort. First, areas that are less reliant on expensive infrastructure may become marginalised within institutions’ strategic thinking and, over time this may result in atrophying of the human skill-base in these areas. Second, emerging cross-disciplinary research areas such as business/biotechnology, and entrepreneurship, may be disadvantaged. Some central mechanism for balancing out these potential negative consequences seems preferable to “local”, institutional solutions. While the internal distribution of funds is the province of individual institutions, the visibility of the formula drivers makes variation from these a highly contentious matter.

The high cost/low cost weightings built into the completions and load factors within the IGS and RTS formulae contain anomalies which should be addressed. For example, the discipline of optometry is deemed to be a low cost discipline in spite of the fact that it is a clinically-based discipline. As well, many of the new Creative Industries disciplines which require laboratory-equivalent infrastructure for research are similarly misplaced as low-cost disciplines. These anomalies build distortions into the formulae which should be removed.

Capping of returns/losses to individual universities under the current IGS/RTS formulae should be continued beyond the initial transition period in order to protect the emergence of greater diversity in the system and to accommodate nodes of research excellence at a range of universities.

Regional capping should be discontinued after the initial transition period, as it has largely been not necessary during the initial period.

In principle, the income weighting for competitive grant and other funding sources of 1:1 is appropriate. In addition, however, in light of the importance of fostering research collaboration, as highlighted inter alia in other Research reviews currently under way, a mechanism should be introduced whereby income relating to collaborative research across institutions receives an additional weighting. This would take some account of the additional costs incurred by universities in their efforts to collaborate with external partners, and would provide an incentive for a desired behaviour.

QUT supports the continued presence of a publications measure in the IGS and RTS formulae. However, the diversity of publication types makes comparisons of parity very difficult; and it can be argued that publication weightings in some instances discourage collaboration, especially between institutions. The current measure is based on quantity not quality and has some detrimental side-effects – for example, one low ranking, single author article earns the same as a multi-author, cross-collaborative, high impact article.

### **Funding for Research Training (RTS)**

The capping of Commonwealth-funded research training places effected through the Knowledge and Innovation reforms is not in the best interests of Australia's future research capability, and by extension not conducive to Australia's future international competitiveness. Likewise, the increase of 30 APA's by 2007 foreshadowed in "Backing Australia's Future" is an inadequate investment in the next generation of the research "best and brightest".

The current allocative mechanism for the RTS, including the separations pool, is flawed in at least three ways:

1. It is administratively complex and costly
2. It locates HDR places without regard to student choice
3. It operates against the principle of diversity in the system by having relied on an historic baseline in the original calculation, and failing sufficiently to reward improved performance by newer universities

In addition, through its substantial reduction of the funded candidature time (20% in the case of Doctorates, 33.3% in the case of Masters), the Research Training Scheme has tended to exacerbate tensions between two worthwhile objectives relating to postgraduate research studies – that of efficiency and that of effectiveness.

With the advent of the RTS, improving completion times and rates has become a major emphasis for most Australian universities, including QUT. This might be seen as entirely positive if looked at in isolation from other factors. However, a concern is sometimes expressed that reductions in candidature time relates to the need for a major reduction in the complexity and innovation of projects – although it is too early to know if that effect will follow. At the same time, the drive to improve the effectiveness of research training has produced pressure towards a more extended period of candidature than the four years currently allowed for Doctoral candidates. The effectiveness of Research Training can be enhanced through:

1. development of the generic capabilities of research graduates
2. more industry-linked and collaborative research training
3. opportunities for international experience and networking

All of these activities require more candidature time, and while this involves additional investment on the part of the Commonwealth, it is an investment with obvious returns in excellence. What is at stake is the quality of our research graduates and the long term health of our soft infrastructure for research.

With the launching of the ATN LEAP online project, QUT and its ATN partners have made a major commitment to enhancing the employability of research graduates through focussed work during candidature on Project Management, Leadership and Communication, Public Policy, Entrepreneurship and Research Commercialisation. This groundbreaking, nationally networked project has received positive endorsement from hundreds of ATN research students during 2003. However, the time pressure on candidature under the four year rule will mean that most candidates can connect with only one or two of these vital skills.

It would be highly desirable for the RTS arrangements to be made flexible enough to accommodate structured programs of generic skill development such as ATN LEAP, by providing a .5 EFTSU extension of candidature.

Similarly, recognition of the complexities inherent in industry-based candidature (eg through the APA(I) scheme) and other collaborative candidatures involving for instance the PFRAs would be better dealt with over an extended period. These modes of research training are subject to a greater variety of vicissitudes, but are potentially richer, and will have a lasting, positive impact on the National Innovation System.

Finally, a case can also be made on similar grounds for an extension of candidature where international fieldwork or laboratory experience is involved.

This set of issues also needs to be addressed through increased Commonwealth scholarship funding for APA, and APA(I) stipends.

QUT supports the retention of international completions within the RTS formula, since it is clear that internationalising our research effort is critical to the future economic growth of Australia; and in addition the presence of international research students on our campuses also has a beneficial learning outcome for domestic students.

In revising the formula, Government needs to take sensible steps to moderate the blunt instrument of the RTS formula so as to avoid (a) situations where some universities have unmet demand, while some of the older “research intensive” universities have trouble using all the places they are given; and (b) excessive swings in the distribution of research training.

Various formulae have been proposed in order to move away from the separations pool as a mechanism. QUT believes that the dominant element in the formula should be completions, and this factor should not be reduced below 40%. A formula of Completions - 40%, Income - 30%, Publications - 10% and Previous RTS - 20% would have an appropriate balance of factors.

### **Performance-based funding for research and research infrastructure (IGS and RIBG)**

QUT supports the view that the current elements and weightings of the IGS allocative mechanism are an adequate national proxy in terms of productivity and quality of research. QUT does not believe that a national RAE-style process could be introduced in a cost-effective manner, given the scale of review mechanisms which would need to be established and the additional administrative impost on individual universities.

It might be argued that the allocation of RIBG funding should not continue to be on the basis solely of national competitive research grants but rather total research income as defined and reported under the Higher Education Research Data Collection. This may accommodate better the range of institutional missions in research, not all of which are focussed on the NCGI. Similarly, the list of allowable expenditure items needs to be extended to provide more autonomy to institutions in strategic planning for infrastructure development at an institutional level, specifically to support the emerging fields of research and those which rely heavily on people infrastructure rather than large equipment items.

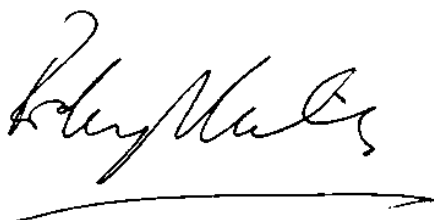
Notwithstanding the RIBG increases since 2001, the average infrastructure return through RIBG still languishes well below the 45c in the \$ which should be regarded as the minimum.

IGS and RIBG funding should continue to be provided to institutions as block grants. The range of outcomes required of a diverse research and innovation system is not captured solely through the particular mission of the ARC or those of other competitive granting agencies. Particularly noting the increasing costs of grant-funding delivery and the increasing burden of compliance measures through the Australian Research Council, QUT is strongly of the view that the dismembering of the performance-based Higher

Education Research Block Funding arrangements would not prove beneficial to Australian research and research training.

**Effectiveness and Efficiency of Research and Research Training Management Reports (RRTMRs)**

These reports have added a costly administrative burden in the case of institutions like QUT which have long had in place a detailed Strategic and Annual Planning framework for Research and other functions of the University. This burden has been absorbed, but there is little conviction about the value-adding of the RRTMRs either in terms of the University itself or in terms of prospective students, as was intended with the introduction of these reports. DEST delays in posting the reports has only added to the impression of this exercise being relatively unproductive.



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