Griffith UNIVERSITY

Response to the Department of Education, Science and Training's issues paper on the evaluation of *Knowledge and Innovation* Reforms

September 2003

Introduction

Griffith University welcomes the release of the *Evaluation of the Knowledge and Innovation Reforms Issues Paper* and the Review being undertaken to ensure that the policy and funding framework for Australia's competitive research funding is effective. While particular focus is being given to the operation of the Research Training Scheme (RTS), the Institutional Grants Scheme (IGS), and the Research Infrastructure Block Grant (RIBG), the Review also seeks to ensure that Australia develops and maintains world-class research and research training.

Griffith's Response to *Knowledge and Innovation*

The University supports the objectives outlined in the Knowledge and Innovation reforms and has responded proactively over the past few years by developing initiatives and mechanisms for allocating resources which ensure that its areas of research strength maintain the capacity to improve research and research training performance. These initiatives include:

- Implementation of a new Research Centres Policy at an additional annual cost of $5.0 million to enable greater concentration of research efforts;
- Establishment of a Griffith Research Graduate School to allow for improved oversight of research training; and
- Doubling in the number of Griffith University Postgraduate Scholarships;
- Introduction of a range of internal research funding schemes to encourage early career researchers and to foster collaborative links whilst still supporting established researchers.
- Active participation in 12 CRCs and in other forms of collaboration involving industry input such as the $100 million AstraZeneca Griffith University Natural Product Discovery institute.

The University therefore argues strongly against major revisions to the core funding principles for research including excellence, transparency, contestability and accountability, links and collaboration, institutional autonomy, responsiveness, and student choice. The principles remain solid however the mechanisms, in particular RTS, need some change to prevent the emergence of practices that may impede research development especially in smaller institutions. The suggested adjustments are discussed in further detail later in this submission.

The Time Lag between Policy Implementation and Effect

It can take many years for the full impact of policy changes to have an effect on the national landscape let alone show provable results. In its own assessment of trends, the University has observed very little movement in research standings over the ten-year period from 1992-2001. *Appendix One* details the findings of the Griffith analysis which admittedly does not assess the impact of the Knowledge and Innovation reforms, but does highlight the risk of introducing further change until the impact of Knowledge and Innovation has permeated the system. For the purpose of the analysis, all Universities were ranked according to research income earned in 2001 (excluding CRC income), and then divided into four bands:

Band 1	Positions 1-9
Band 2	Positions 10-19
Band 3	Positions 20-29
Band 4	Positions 30-38

When compared against the standings from 1992 some predictable results and a few surprises emerged. Using overall research income as the measure only eight of the 38 universities moved up or down the rankings by more than five places from 1992 to 2001 while 27 moved by only two places or less. Mobility within the rankings is not easy to achieve and there is little evidence to suggest that the most upwardly mobile universities did so as a direct result of superior research management. Both upward and downward mobility appear to have been most affected by systemic factors such as location, demographic trends, and amalgamations.

Seven of the eight universities experiencing the highest degree of mobility (up or down) were situated in the lower two bands in 1992 indicating that this is the most volatile section of the rankings. In contrast, the greatest movement occurred within the middle bands even if by only one or two positions indicating that this is probably the most contestable, and in some respects the most competitive, section of the rankings. There has been some moderate redistribution of shares of research income with the institutions in Band 1 still receiving more than 70% of the income (down from approximately 75% in 1992) while those in Band 4 now enjoy access to a little more than two percent of research income (up by almost one percent from 1992).

Given the full impact of institutional amalgamations of the early 1990s has now been absorbed, universities now have even less ability to dramatically improve their research standings except through real improvements in research capability and results.

The Impact of Knowledge and Innovation Reforms

Appendix Two is a reconfiguration of data presented in the Issues Paper and shows the effect of the combined RTS, IGS and RIBG allocations for 42 institutions across the period 2001-2003. It shows a larger percentage of the performance-based block funding pool going to the Top 10 universities (67.17% in 2001 to 67.93% in 2003) however this can be attributed to the inclusion of the Institute of Advanced Studies from 2002. The universities in positions 11-30 are again the most affected showing slippage from 30.67% of the pool in 2001 to 29.91% of the pool in 2003. The lower group (positions 31-42) show no change from 2.15% in 2001 remaining at that level in 2003.

What we can glean from this analysis is that the funding mechanisms introduced by Knowledge and Innovation have resulted in a slightly more even distribution of funding and that any suggestion to collapse the funding schemes into a single scheme based on, for example, share of national research income, would channel funding back to the more established Top 10 universities by between three and five percent ($27-45 million). Use of a broader range of indicators for distributing research funding has allowed universities to address their research development in a manner that serves their clients and communities best, although it has had little effect on the standing of the universities when compared against the rankings in Appendix One. The Top 10 remains unchanged and the same universities still remain at the bottom. As was the case between 1992 and 2001, most of the mobility has occurred in the middle with universities such as La Trobe and Macquarie benefiting from their high number of HDR completions.

Despite the evident lack of mobility in research standings, Griffith does not propose greater contestability given the likely effect would be to concentrate research funding in a few institutions even more heavily than it already is. Contestable funding also encourages institutions to seek short-term gain over long-term investments. Australia needs to retain the capacity to make significant and long-term investments to pursue speculative research in addition to the projects of three years' duration typically supported by competitive research granting schemes. If the Commonwealth does increase the proportion of research funding it makes contestable, it should allocate those additional funds to research centres not to projects, as increasing the proportion of funds allocated to projects risks fragmenting research effort.

New Principles Emerging

The University's central position is to support the retention of the Knowledge and Innovation reforms with several improvements including:

1. Increased recognition for research centres of excellence
2. Greater rewards for industry funding and research collaboration
3. Streamlined distribution of block funding

These principles are more fully explained below.

Performance-based Funding

Griffith University supports the principle of contestable performance-based block funding as a means of supporting institutional research and research training. The Commonwealth's commitment to this principle is critical if areas of research excellence in all institutions are to emerge and achieve international standing.

The Role of Publications

In the interests of simplicity and transparency, the University argues for the removal of publications from the RTS and IGS formulas due to the very high correlation between publications and share of research income.

Publications drive only $37 million (three percent) of the $1.854 billion annual allocation of performance-based block funding and yet have a significant and often negative impact on the behaviour of both institutions and individuals. Griffith would support the retention of publications as a measure if it were to include creative works and the adoption of a focus on the quality of journals in which articles appear. In the absence of publications as a formula input for block funding, it is likely that universities would continue to collect publications data for the purpose of performance appraisal and management of research elements and individual staff as well as for quality improvement. Any University would retain the right to deploy research block funding to areas producing creative works and to focus more on higher quality journals if it chooses.

Links and Collaboration

The University recommends continuation of the equal weighting given to all sources of research income for calculating IGS and RTS.

With almost 75% of performance-based block funding allocations being driven by "other competitive processes" such as industry income, other public sector income, HDR enrolments, and income from CRCs, it is difficult to argue a strong case for strengthening the weighting in these areas. Increased weighting for industry links for instance would make universities even more outward focussed, however it could also inhibit fundamental research. With the 20% of performance-based block funding driven by NCGs projected to grow (according to the Issues Paper) as increased levels of ARC and NHMRC grants rise through to 2005-06, the balance is probably about correct.

Capping of Gains for RTS and IGS

It is recommended that a five per cent capping on RTS and IGS continue.

While capping applied across the sector has limited the speed of redistribution of funding, continuation of the capping would ensure larger institutions still have the capacity grow but that smaller institutions are not handicapped. While research income across the sector has grown approximately 135% between 1992 and 2001, research funding for the Top 10 institutions has grown by more than 120% delivering an additional $420 million in research income. By contrast, the research performance of the bottom ten universities has improved by almost 400% resulting in an additional $23 million in research income. Capping provides an effective mechanism for ensuring that research improvements continue to occur across the system. Complete removal of capping will only result in wealth accumulation amongst a select number of institutions.

Streamlining of Funding

Some have argued that integration of block funding for university research and research training into a single program providing universities with greater autonomy in the management of funds. This principle on the surface appears quite sound however it is probable that we would end up with a single but very complex formula which would be hotly contested and difficult to understand or else a highly simplified formula which would skew funding towards a particular group of universities, type of research or type of research output. In their current form, each scheme has its own specific objectives which would be undermined through creation of a single scheme. The formulas for the three funding allocations cause a degree of confusion but the better solution is to simplify the respective formulas rather than produce one complex formula.

Peer-reviewed research performance

The Issues paper canvasses the option of introducing allocation mechanisms based on peer review along the lines of the Research Assessment Exercise (RAE) used in the United Kingdom. Griffith University acknowledges the benefits of the RAE yet cautions against such an approach due to the costs involved in implementation and the fact that such an exercise is unlikely to produce major change to the funding patterns.

Research Training Scheme (RTS)

The RTS was designed to reward institutions which provide high quality research training environments with funding weightings based on successful completions (50%), research income (40%) and research publications (10%). Adjustments are made to each institution's base determined on the basis of 'net separations'.

The University's main concerns with RTS formula relate to the complex nature of the separations pool mechanism which has received widespread criticism due to its complexity and possible bias against less prestigious institutions. It is recommended that the separations component of the RTS formula simply be removed.

Griffith University also has concerns over the heavy emphasis placed on rapid completion which could result in diminished quality. Other concerns have arisen that "poaching" of talented research students in the latter stages of their programs has occurred although there is limited and mainly anecdotal evidence to substantiate such claims. The argument for a reduction in the weighting for completions is verified by a recent study undertaken by Monash University[1] which found completions to be a "weak driver in the overall formula because each completion also involves a separation". A separation is returned immediately to the pool whereas improvements in completions only count a year later. Their contribution is further weakened by being only 50% of the formula whereas separations are 100% of the contributions to the pool. The paper goes on to say that the system, in its current form, is biased against universities with a larger proportion of full-time students and talented students who complete well before their funding runs out. The introduction of research student load into the formula would introduce an element of immediacy into the funding outcomes while removing several of the punitive effects of the separations pool.

Griffith University recommends the following revisions to the RTS allocation mechanism:

1. *Retention of the 5% capping for all institutions;*

2. *Removal of the Regional Support Package; and*

3. *Adoption of a simplified formula comprising:*

    a. *Research student completions (weighted at 30%)*
    b. *Commonwealth-funded research student load (weighted at 30%)*
    c. *Research income (weighted at 40%)*

[1] *The Flawed Nature of Australia's Research Training Scheme*, Discussion Paper by King, Maxwell and Dobson, Ian, Monash University, 2003

Institutional Grants Scheme (IGS)
The University has few concerns with IGS. Based on the principles argued in the section covering performance-based funding, Griffith University recommends the following revisions to the IGS allocation mechanism:

1. Retention of the 5% capping for all institutions;

2. Removal of the Regional Support Package; and

3. Adoption of a revised formula comprising:
    a. Research income (weighted at 70%)
    b. Commonwealth-funded research student load (weighted at 30%)

Research Infrastructure Block Grants (RIBG)
Griffith University supports the retention of the existing RIBG formula, and argues against direct attachment of such funds to competitive grants.

Research Infrastructure Block Grants (RIBG) funding provides institutions with the flexibility and capacity to manage research infrastructure requirements at the institutional level. Funding under the RIBG scheme also compensates institutions for the failure of competitive grant schemes to fully fund individual research projects. On this basis, Griffith University is not in favour of the same formula being adopted for distribution of IGS and RIBG. The *Knowledge and Innovation* reforms introduced equal weighting for industry-funded research encouraging greater cooperation between universities and industry. Such research should always be fully funded and any move toward a common formula would suggest that industry funded research requires supplementary funding through RIBG. This would undermine the cornerstone premise upon which the RIBG scheme is based. The other major downside of using the IGS formula for RIBG allocation would be that institutions might be tempted, as is the case in some instances with IGS, to distribute the funding internally via the same mechanism by which it is allocated. For precisely the same reasons, the University does not support the suggestion of attaching RIBG funds to competitive grants.

Research and Research Training Management Reports (RRTMR)
Concerns within the university sector about the RRTMR have usually centred on the lack of clarity as to their intended use by Government. By and large however, universities are appreciative of the streamlined RRTMR requirements introduced in 2002 and the fact that the Institutional Assessment Framework (to be introduced in 2004) will result in further efficiencies in reporting requirements.

Griffith University supports these developments and is in favour of options such as:

- lodgement of RRTMRs electronically; and
- an increased focus on quality indicators such as postgraduate student experience ratings and adoption of the Brennan index (IGS funding as a proportion of total Commonwealth funding).

On a final matter, the University's experience with the HERDC data collection is that the processes for audit of the research income component is erratic and changes each year. It would be of tremendous benefit for DEST to provide guidelines for auditors to remove inconsistencies between institutions.

Appendix One

Institutional Rankings by Research Income[2] (1992 and 2001)

Institutions (2001 rank order)	1992	1992 Rank	2001	2001 Rank	Movement in rank over time
Band 1 (Rank 1-9)					
The University of Melbourne	54,658,243	1	130,554,703	1	-
The University of Queensland	43,928,099	4	119,456,160	2	+2
The University of Sydney	51,011,140	3	111,941,830	3	-
University of New South Wales	53,004,960	2	103,998,159	4	-2
Monash University	38,744,634	5	78,801,050	5	-
The University of Western Australia	28,831,803	7	71,745,455	6	+1
Adelaide University	30,091,751	6	65,826,060	7	-1
The Australian National University		8	50,948,733	8	-
University of Tasmania	12,446,139	11	28,365,505	9	+2
Band 2 (Rank 10-19)					
The University of Newcastle	11,552,533	12	25,904,437	10	+2
Flinders University	15,461,420	9	25,709,019	11	-2
Griffith University	5,517,659	21	22,631,270	12	+9
Curtin University of Technology	8,236,141	15	21,669,033	13	+2
La Trobe University	10,920,277	13	20,679,086	14	-1
University of South Australia	4,007,875	23	17,703,257	15	+8
Murdoch University	7,477,577	18	17,120,777	16	+2
RMIT University	8,523,473	14	17,031,296	17	-3
University of Wollongong	7,984,428	16	16,755,028	18	-2
Queensland University of Technology	5,870,944	20	14,710,880	19	+1
Band 3 (Rank 20-29)					
Macquarie University	15,329,719	10	14,494,581	20	-10
University of Technology, Sydney	4,980,305	22	14,297,722	21	+1
Deakin University	3,559,203	24	14,111,943	22	+2
James Cook University	7,904,367	17	10,051,777	23	-6
University of Western Sydney	2,535,641	25	9,933,860	24	+1
The University of New England	7,338,664	19	8,919,527	25	-6
University of Canberra	580,449	32	7,558,818	26	+6
Swinburne University of Technology	1,431,319	27	6,647,636	27	-
Victoria University	1,152,551	28	6,281,966	28	-
Edith Cowan University	290,084	35	5,105,730	29	+6
Band 4 (Rank 30-38)					
Southern Cross University	365,452	33	4,476,299	30	+3
Central Queensland University	946,139	29	3,535,643	31	-2
University of Southern Queensland	671,754	31	3,506,350	32	-1
Charles Sturt University	712,478	30	3,377,391	33	-3
Northern Territory University	2,254,421	26	3,047,617	34	-8
University of Ballarat	363,637	34	2,738,062	35	-1
Australian Catholic University	192,236	36	2,348,909	36	-
University of the Sunshine Coast	0	37	415,885	37	-
Bond University		38	222,483	38	-
TOTAL	**457,284,627**		**1,082,623,937**		

[2] Source: DEST HERDC Time Series Data (Includes All National Competitive Grants, Public Sector and Industry and Other Funding, Excludes CRCs).

Movement in rank order across period 1992-2001

No movement	9 institutions
Movement by 1 to 2 places	18 institutions
Movement by 3 to 5 places	3 institutions
Movement by 6 to 10 places	8 institutions

Institutions retaining position in specified Band across period 1992-2001

Top 5:	5	Top 10:	8	Top 20:	18
Bottom 5:	4	Bottom 10:	9	Bottom 20:	18

Movement between Bands across period 1992-2001:

Band	Movement In (from)	Movement Out (to)
Band 1 (B1)	University of Tasmania (B2)	Flinders University (B2)
Band 2 (B2)	Flinders University (B1) Griffith University (B3) University of South Australia (B3) Qld University of Technology (B3)	University of Tasmania (B1) Macquarie University (B3) James Cook University (B3) University of New England (B3)
Band 3 (B3)	Macquarie University (B2) James Cook University (B2) University of New England (B2) Edith Cowan (B4)	Griffith University (B2) University of South Australia (B2) Qld University of Technology (B2) Central Queensland (B4) Northern Territory (B4)
Band 4 (B4)	Central Queensland (B3) Northern Territory (B3)	Edith Cowan (B3)

Appendix Two

Combined RTS, IGS and RIBG allocations 2001-03

	2001		2002		2003	
	allocation	% of pool	allocation	% of pool	allocation	% of pool
The University of Melbourne	$94,221,680	11.17	$95,118,549	10.76	$96,226,583	10.61
The University of Sydney	$89,630,501	10.63	$91,835,313	10.39	$94,363,137	10.41
The University of Queensland	$81,475,411	9.66	$86,508,841	9.79	$89,745,699	9.90
The University of New South Wales	$71,788,664	8.51	$76,274,075	8.63	$77,572,336	8.55
Monash University	$63,446,601	7.52	$62,697,087	7.09	$63,424,577	6.99
The University of Western Australia	$48,306,408	5.73	$50,655,868	5.73	$52,015,489	5.74
The University of Adelaide	$44,323,981	5.25	$47,581,796	5.38	$50,743,515	5.60
Australian National University[3]	$30,216,876	3.58	$43,848,563	4.96	$45,747,189	5.05
University of Tasmania	$21,025,258	2.49	$22,480,991	2.54	$24,128,137	2.66
The University of Newcastle	$22,221,988	2.63	$21,911,952	2.48	$21,980,067	2.42
La Trobe University	$21,488,839	2.55	$21,637,309	2.45	$21,819,358	2.41
Flinders University	$19,651,626	2.33	$20,121,799	2.28	$20,942,610	2.31
Macquarie University	$20,248,549	2.40	$20,471,182	2.32	$20,239,784	2.23
University of Wollongong	$18,510,334	2.19	$19,599,588	2.22	$20,122,665	2.22
Griffith University	$18,032,294	2.14	$18,902,869	2.14	$19,431,631	2.14
RMIT University	$16,866,973	2.00	$16,856,204	1.91	$16,943,564	1.87
Curtin University of Technology	$14,552,681	1.73	$15,577,186	1.76	$16,583,768	1.83
Queensland University of Technology	$15,549,237	1.84	$15,432,961	1.75	$15,212,694	1.68
University of Technology, Sydney	$14,538,327	1.72	$14,262,327	1.61	$14,337,793	1.58
Murdoch University	$13,028,677	1.54	$13,620,932	1.54	$14,148,123	1.56
The University of New England	$13,075,840	1.55	$13,537,608	1.53	$13,642,686	1.50
James Cook University	$13,300,594	1.58	$13,276,916	1.50	$13,129,469	1.45
University of South Australia	$12,191,132	1.45	$12,210,961	1.38	$12,417,677	1.37
University of Western Sydney	$11,406,043	1.35	$12,067,739	1.37	$12,217,394	1.35
Deakin University	$9,696,151	1.15	$10,371,844	1.17	$11,155,712	1.23
Victoria University of Technology	$6,436,509	0.76	$6,821,055	0.77	$7,122,798	0.79
Swinburne University of Technology	$7,008,439	0.83	$6,885,540	0.78	$7,020,236	0.77
Edith Cowan University	$4,614,190	0.55	$4,891,023	0.55	$5,264,862	0.58
University of Canberra	$4,292,411	0.51	$4,659,136	0.53	$4,773,491	0.53
Charles Sturt University	$4,231,407	0.50	$4,584,979	0.52	$4,688,375	0.52
Southern Cross University	$4,000,029	0.47	$3,936,309	0.45	$4,083,339	0.45
Central Queensland University	$3,758,217	0.45	$3,882,676	0.44	$3,887,770	0.43
Northern Territory University	$3,562,200	0.42	$3,820,484	0.43	$3,719,561	0.41
University of Southern Queensland	$2,957,520	0.35	$3,087,459	0.35	$3,249,221	0.36
University of Ballarat	$1,421,971	0.17	$1,484,053	0.17	$1,539,109	0.17
Australian Catholic University	$1,339,765	0.16	$1,417,910	0.16	$1,528,308	0.17
University of the Sunshine Coast	$303,561	0.04	$420,034	0.05	$543,653	0.06
Australian Maritime College	$638,991	0.08	$492,448	0.06	$522,649	0.06
Melbourne College of Divinity	$0	0.00	$214,340	0.02	$225,058	0.02
The University of Notre Dame Australia	$156,551	0.02	$200,096	0.02	$205,275	0.02
Bond University	$55,574	0.01	$93,236	0.01	$107,329	0.01
Batchelor Institute	$0	0.00	$9,278	0.00	$9,742	0.00
TOTAL	**$843,572,000**	**100**	**$883,760,519**	**100**	**$906,782,435**	**100**

[3] Includes IAS from 2002