



**Edith Cowan University
Vice-Chancellor's Office**

Pearson Street, Churchlands
Western Australia 6018
Phone: (08) 9273 8205
Facsimile: (08) 9273 8666
Email: vc@ecu.edu.au

10 September 2003

Dr Evan Arthur
Knowledge and Innovation Review Secretariat
Department of Education, Science and Training
Location 121
GPO Box 9880
Canberra, ACT 2601

Dear Evan

Thank you for the opportunity to present this submission to the review of the Knowledge and Innovation program, which was first launched by Minister Kemp in 1999.

Edith Cowan University has been very successful in achieving the maximum growth of 5% in the IGS and RTS schemes in each year of their operation. The University's success in these block grant funding mechanisms has been due to the University's strategic commitment to building the research and research training culture, focussing resources on areas of strength and providing targeted support mechanisms for our researchers, research students and their supervisors.

ECU research is largely conducted in collaboration with the service professions and in three areas of research strength. PREQ data show the University provides an excellent research training environment and many ECU research projects are having significant impact at the national level, and some internationally.

Despite these fine achievements, ECU is concerned that the growth of research and research training at the University could be threatened by any moves to shift existing block grant funding to other schemes, by the over-concentration of research training at the research-intensive universities, or by allowing other agencies to compete with universities for the limited funding available through competitive or performance-based funding schemes.

For the convenience of the Secretariat, ECU's submission is organised as responses to the review questions provided by the Department.

With best wishes for your deliberations.

Yours sincerely

Millicent E Poole
Vice-Chancellor

Key Consultation Questions

Evaluation Context:

Are the funding principles for research (excellence; institutional autonomy and responsiveness; student choice; linkage and collaboration; and transparency, contestability and accountability) still relevant?

Yes, the principles are appropriate and relevant. With calls from some universities for reform of the RTS funding mechanisms, there is a risk of over-concentrating research training in the research-intensive universities. The principle of Student Choice, and the belief that “Students should be able to make choices about where they undertake research, with whom they work and obtain supervision...” (Kemp, 1999) is particularly important. Should reform of the RTS result in a further shift in HDR load to the research intensive universities, this principle of Student Choice will be at risk.

Overarching Issues for Performance-based Funding:

Do the *Knowledge and Innovation* reforms encourage the attraction and retention of high-performing research staff?

Stability of funding and access to research support and infrastructure assist in attracting and retaining high-performing research staff.

Do the *Knowledge and Innovation* reforms allow the possibility of an individual institution’s markedly improving its funding position in a reasonable time (say 5 years) by good research management?

There are limits to the extent of growth that can be achieved by the New Generation Universities (NGUs), such as ECU, which, as an accident of history, lack large Schools of Science/Engineering/Medicine which tend to be the discipline areas required to generate the large research grants needed to be competitive in terms of share of national research income.

Has beneficial concentration of research effort occurred?

The R&RTMRs have influenced the move to concentrating research and research training around strengths within institutions, and this has been beneficial. There are dangers of over-concentration of research activity across the sector. Further concentration of research block grant funding may limit student access to research training at some universities, even within state capital cities.

Does the *Knowledge and Innovation* package and its implementation at the institutional level encourage the development of pockets of international level research activity at the majority of universities?

ECU has been able to develop international level research in the area of microelectronics.

Are the current block funding formulae encouraging universities to move in the directions laid out in *Knowledge and Innovation*?

The equal weighting given to all forms of DEST category research income has strongly supported increased collaboration with industry partners.

What changes should be made to the formulae for current performance-based block funded schemes?

- Should the formulae be simplified and, if so, how?

There are arguments in favour of simplifying the RTS funding mechanism so that the funding process is more transparent, however, removal of the separations pool will remove an important driver of research training efficiency which has required universities to reduce attrition.

- Should the double weighting for national competitive grant funds be restored?

No. Giving equal weighting to industry and NCRG funding has been effective in increasing universities' engagement with industry partners and expansion of collaborative research initiatives which have the potential to generate research outcomes which have a direct benefit to industry. Involving industry in these collaborative research projects has helped industry to see itself as sharing responsibility for funding research in the tertiary sector.

- Should the research publications element be removed from the formulae?

No. Publications is a valuable output measure for research performance, it facilitates communication of research findings to potential users. It is an important element in making Australian research productivity visible on the international stage. The inclusion of publications in the formulae encourages early career researchers to publish and build their track record and research profile.

- Should the research publications element of the formulae include quality measures?

No. The current system is sufficiently robust for the level of impact that publications have on funding and the ARC process provides adequate peer-reviewed measures of quality. Other quality-based measures have unacceptable negative affects eg. citations tend to disadvantage the social sciences and humanities.

- Should performance in block funding mechanisms be measured at university level or at department/faculty level or areas of research strength?

No. Institution performance data are sufficient for allocating funding between institutions. Providing data at an academic unit level would impose an unreasonable burden on data collection.

- Should Australia adopt an RAE-type mechanism to allocate block funds?

No. RAE mechanisms are too expensive and consume human and financial resources that could be better used for funding research itself. The UK experience has revealed some negative unintended consequences of the RAE with poaching of research active staff creating a more transient research workforce.

Should there be an increased proportion of research funded through granting councils?

No. The current balance between competitive and performance-based funding is about right.

Should granting councils be funded to allow them to cover the full cost of the research that they support?

This depends on the source of the funds. ECU would not support the diversion of any block grant funding to granting councils. ECU would support the provision of new money that would enable granting councils to increase the success rate and the full cost of the research.

Should the incentives for universities to collaborate with outside bodies be strengthened?

Giving equal weighting to industry and NCRG funding has provided an effective incentive to collaborate with industry partners. There are already many good programs such as REIF, MNRF, ARC Linkage, Centres of Excellence and ARC Networks that foster collaboration.

Are the requirements for universities to contribute funds to collaboratively funded programs leading them to inadequately support other research projects?

NGUs have quite limited capacity to fund these collaborative initiatives.

Should universities be required to account for how they use research funds in a more detailed way than presently?

No. There is sufficient accountability within current reporting measures.

Should the 5% capping of institutional gains through the RTS and IGS continue?

Yes, 5% capping on growth should be retained to minimise large perturbations in funding. With the potential for significant changes to the RTS funding arrangements it is essential that capping be retained to moderate any unforeseen impacts of the new measures.

How useful is the HERDC, including categories under which data are provided?

The HERDC provides useful research output measures which are valuable for benchmarking and for tracking performance over time. Stability in these measures enhances their use for tracking performance.

Have the current arrangements given sufficient encouragement to universities to support the activities of early career researchers, or those who are seeking to re-establish research careers?

Block grant mechanisms currently allow institutions sufficient flexibility to offer early career research programs. ECU has introduced such a scheme this year.

Research Training Scheme (RTS):

Has the RTS succeeded in encouraging a focus on the quality of student supervision?

Yes. The RTS funding formula and separations pool mechanism have provided incentives to maximise completions and minimise attrition through improved supervision. The R&RTMRs have provided incentives to increase levels of supervisor training and to ensure supervisors are appropriately qualified, experienced and research active. The AUQA processes have provided incentives to universities to respond to PREQ data regarding students' satisfaction with their research training environment.

Has the allocation method had the desired effect of placing research students into research environments which provide the best research training and research infrastructure support?

Yes. Allocation of students within institutions to areas of research and supervision strength has been encouraged by the R&RTMRs and the RTS.

Has the RTS succeeded in concentrating research training in areas of excellence?

There is a significant concentration of RTS places within the research intensive universities. These tend to be the older universities with long established higher degrees by research programs. These universities also have Schools of Medicine and Engineering and the capacity to win large research grants. There is a risk that there could be further concentration of RTS places in these universities, some of which struggle to attract sufficient high calibre students to fill their places. By comparison, some of the New Generation Universities have provided innovative higher degrees by research programs with extensive support services and have far more applicants than can be offered places. Any further concentration of research training into the research intensive universities will have the unfortunate consequence of limiting student access to some of these new programs.

Have the funding arrangements provoked a shift in students between masters and doctorates?

Yes. At ECU, due to the limited number of funded places, most places are allocated to scholarship winners, which tend to be doctoral students.

Should the time allowed for a full-time student undertaking a doctorate be increased from four to five years?

If there is to be no additional funding for RTS places, ECU would support the retention of the existing number of places funded for a maximum of four years rather than funding fewer places for longer. Indeed, should there be additional RTS funding, ECU would prefer to see additional places created rather than increasing the length of funded candidature.

Has the use of similar formulae by institutions to internally allocate funding produced any undesirable side effects?

ECU has allocated RTS places between faculties using a formula based on existing share of load (70%) and performance as per the RTS formula (30%). This mechanism allows for continued funding for continuing load and a performance component that provides an incentive to faculties. This mechanism has proved satisfactory, however, the potential inclusion of infrastructure grants (eg MNRF) in the HERDC did cause considerable concern as such large grants can skew allocations in inappropriate ways.

Has there been any impact on part-time and mature age students?

With the loss of Gap places, despite maximum growth through the RTS scheme in the past two years, ECU has had fewer funded HDR places. The consequence of this is that fewer new places are being offered each year, and most of these go to full-time PhD students who have won postgraduate research scholarships. This has reduced the number of new places offered to part-time students.

Has there been any impact on granting leave of absence, suspending candidature or allowing students to change from full-time to part-time study?

No.

With regard to the formula for the RTS:

- Is it too complex?

The formula itself is quite straightforward.

- Should the separations pool mechanism be retained?

Many universities have struggled to understand the separations pool mechanism and this has limited the transparency of the funding process. The separations pool mechanism has been a most significant driver of research training efficiency requiring universities to minimise attrition.

Should the separations pool be discontinued the quantum of funds allocated between universities will increase from less than 20% to 100% of the RTS scheme. This has the potential for instability in funding performance from year to year as performance varies, with no consideration of the need to have stable funding for continuing load. Should the separations pool be discontinued, the RTS formula and/or funding mechanism will need to be modified to provide assured funding for continuing load, for example, allocating 70% of funding on the last two years' average share of RTS and 30% of funding on performance using the existing RTS formula. Stability will also be enhanced by averaging all performance data over two-years and by retaining 5% capping on growth.

- Should funding adjustments continue to be made on a semester basis?

All institutions require stable and predictable funding. The calculation of separations on a semester basis makes little sense when universities are funded on an annual allocation. Averaging separations and completions over two years would limit perturbations in funding.

- What changes, if any, should be made to the RTS formula itself?

This depends very much on the fate of the separations pool, however, there are a number of factors that should be retained: the equal weighting given to all forms of research income; and counting completions from unfunded (category 43) Australian students. Any new formula must ensure continuity of funding for continuing HDR load.

- Should international research student completions be treated equally as local research student completions?

International research student completions do represent a measure of research output and productivity, however, there could be some consideration of weighting international completions at a lower level than Australian HDR completions.

What alternative approaches could be adopted to fund research training?

There needs to be some recognition of the disadvantage experienced by New Generation Universities that commenced higher degree programs quite recently and were limited in the size of HDR program that could be developed prior to the RTS being implemented and the withdrawal of Gap places. Funding mechanisms need to take account of the need to maintain access to HDR programs at the NGUs.

Institutional Grants Scheme (IGS):

Is the IGS achieving its stated objectives of increasing institutions' flexibility and autonomy?

The IGS provides institutions with funds that can be used flexibly to support strategic initiatives such as the development of new areas of research strength. Placing additional restrictions on the use of these funds through reporting measures for example, or by transferring block grant funds to funding councils, would threaten this flexibility.

What changes should be made to the IGS formula?

The funding formula is well accepted across the sector. An important aspect of the formula is the equal weighting given to all forms of DEST category research income. This has stimulated increased collaboration with industry partners and the generation of research outcomes of direct benefit to industry.

Research Infrastructure Block Grants (RIBG) and related issues:

Is the use of different formulae for IGS and RIBG unnecessarily confusing?
Should only one formula be used?

Given the relatively small size of the RIBG program compared to the IGS program, some efficiencies could be achieved by rolling the RIBG scheme into the IGS scheme and allocating the total quantum based on the IGS formula.

As infrastructure support needs to be provided within institutions to support both pure research and applied industry-based research, there is a case to be made for changing the RIBG funding formula so that it takes account of all forms of DEST category research income, weighting these equally.

Should RIBG funds be directly attached to competitive grants? If so, how?

No. Providing RIBG funds to institutions as a block grant enables universities to use the funds far more flexibly and effectively than if they were allocated in smaller quanta associated with projects. At the consultation meeting in Perth there was strong opposition to the idea of transferring any block grant funds to funding councils.

Encouragement of strategic planning verification of research and research training quality at the institutional level:

Has this reporting requirement produced positive results by encouraging a more strategic approach?

Yes, the R&RTMR process has encouraged and supported a more strategic approach and concentration of resources in areas of strength.

Is further streamlining of the Research and Research Training Management Reports (RRTMRs) appropriate?

Yes, there is room for reducing the scope and increasing the efficiency of these reporting requirements. Reporting frequency could be reduced to every second or third year.

What alternative approaches could be taken to meet the public accountability objectives of the RRTMRs?

It is likely that all universities include R&RTMRs as part of the annual planning cycle making links between high level strategic plans and operational planning, and these reports will also be required for AUQA audits. R&RTMRs will therefore remain as part of university planning and reporting processes. It is important not to add further reporting measures that may duplicate the requirements of R&RTMRs.

Regional Support Package:

Should the regional support package be continued beyond 2004, taking into account the role and contribution of regional universities to Australia's science and innovation system?

ECU would not support the continuation of this scheme under the current arrangements.

Should the eligibility criteria for regional assistance be reviewed?

The scheme would be worthy of support given that regional campuses, such as ECU's Bunbury Campus, were included within the eligibility criteria

Contestability of funding for the Institute of Advanced Studies (IAS) of the Australian National University:

What are the implications of these arrangements for the higher education sector as a whole?

Allowing the AIS access to contestable funding has reduced the research funds flowing to the NGUs. This arrangement should be reviewed after three years.