

Fostering Australian University Research

Having just stepped back from heavy managerial responsibilities in the Higher Education sector and leadership roles in international university networks, I feel able to comment dispassionately on the topic. Admittedly it is narrow. A great strength of the Cutler Review, *Venturous Australia*, is its multisectorial approach to enhancing an innovation culture in Australia. Phrases like ‘connectivity’, ‘collaboration for productivity’, ‘virtuous cycle’, ‘information flows’, ‘open innovation’, ‘market facing’ and ‘self transformation’ are markers for a nationwide cooperative leap forward. I believe, however, that in each component of an overall innovation culture the structural context must provide incentives for decision makers, so I feel free to focus on those incentives which apply (or should apply) within universities.

For many years the biggest problem for me has been the lack of any systematic scheme to develop basic research infrastructure. I speak not of researchers nor of their equipment, but rather the buildings to house them. Existing block grants cannot be used in this way so there is severe difficulty in mounting major new initiatives, especially inter – disciplinary ones, and in attracting overseas stars and their teams. Of course the Endowment Fund was established to tackle this – but

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its small size means it is a solution in principle not in practice.

Close behind comes the frustration of underfunding of research grants. These typically go to individual researchers with the university being required to provide both overheads and partial contribution. As *Venturous Australia* explains, this forces cross-subsidy, usually from overseas student teaching fees and damages both research and teaching viability. As grant success rates are already low, there is little need for further demonstration of institutional commitment and the only solution is more money in the system - a strategy backed by OECD comparisons.

As cross-subsidy is currently necessary, there is incentive for public research universities to develop private for-profit colleges and there are some sociological arguments in favour. However there is fear of brand dilution and of deviation from core purpose. Similarly it would have been logical to retain the funding from domestic full-fee students (and the opportunities provided) but that is deeply controversial.

To save on costs one might tackle those problems by further concentration of research resources to fewer universities. China, Taiwan, Korea, Japan, Germany, Malaysia have all gone down this track to various degrees and so, in a sense, has Australia, where something like 70% is won by Go8 universities and ANU has additional dedicated government funding. Recent observation of Japan suggests great caution. On the one hand relaxation of governance protocols has allowed leading Japanese

public universities to forge their own destiny with refreshing vigour; on the other hand the Centres of Excellence system of research funding seems to have put at threat perfectly good public universities with less overall strength.

There is a great looming challenge for Australia in fine-tuning a system of compacts and clusters in such a way as to reward leadership initiative throughout the system. In other parts of Asia I have discerned a tendency for university presidents to be hired and fired on the basis of (flawed) international league tables so we have the further challenge of evaluating research performance fairly and making this a rigorous component of funding allocations while nurturing the whole system.

Australia's research contribution to world productivity is around 2%

in areas which can be measured. This has obvious strategic implications for we must have a ticket at the table to access the remaining 98%. It means we must take the risk and fund some areas of high impact basic research (although picking winners is not easy) and that we must encourage our academics to travel. We need schemes to bring more researchers here and we must be part of international alliances. In particular government policy should not be squeamish about

potential leakage of funding to foreign universities or companies. We should adopt an investment strategy approach in the international area.

Similarly we would benefit from a climate of more open innovation in the commercialisation of university research. Over the last few years I feel that government agencies have over-estimated the potential returns and written more onerous contracts. The universities have responded by doing the same with an eye to taxpayer audit. If I am correct, this has the danger of missing the main game with the outcome being that none of us can be blamed, but opportunities are lost. Companies should find universities easier to deal with.

All of this requires heightened public awareness of the benefits and risks of science and technology in an overall climate of adventurous innovation. Key decision makers must be kept abreast of the world issues arising from research, not least so that they are less susceptible to emotion-based lobbying, and everyone, especially youth, should gain an appreciation of both the joy and practicality of research.

The universities have an important obligation here. Meanwhile society should help them with infrastructure, full –funding of research grants, encouragement of international engagement and a more entrepreneurial risk-accepting regimen.

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