

Submission to Higher Education Review
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1.0 The Issue

Despite its good international reputation, higher education in Australia is in a parlous state. Both education and research are in poor shape. Morale is low and institutions are casting around desperately for solutions to a wide range of problems including finance, management, staff and student quality and quantity, infrastructure, education and collaboration technologies, demographics, geographics, social and economic relevance, and general strategic direction. As such, the higher education sector is ill-prepared to address the innovative future envisaged for Australia.

In round figures, the higher education sector has one million students (one-quarter from overseas), almost 100,000 staff and an annual budget of \$25 billion (including R&D). Compared with Australia's private corporations, it is by far the largest employer and well within the top ten by annual turnover.

Although the higher education sector is not a private corporation, it is expected to operate and be accountable in a business-like way. However, unlike most modern businesses, it is highly fragmented, with 39 higher education institutions operating with separate and duplicated accountability, and with authority and responsibilities unequally matched. Despite being a virtual monopoly for three-quarters of its clients (students), opportunities are emerging for alternative supply, both locally and globally.

The comparison with the commercial private sector is made to illustrate that if the sector were a private corporation of the same scale and scope and beset with the same problems, it would be considered overdue for a major restructure, not just a refinement of its operating processes. *Unlike the private sector, liquidation is not an option.*

The major steps needed to revitalise the sector and regain its viability are:

1. Remove redundant activities
2. Rationalise the remaining activities
3. Create appropriate management structures
4. Create appropriate funding structures
5. Re-invest savings
6. Incentivise staff
7. Increase investments in priority areas where justified if available
8. Create an appropriate accountability system
9. Create new educational products

The following sections include recommendations in line with these steps.

2.0 Underlying Principles of the Australian National Higher Education System

First, the Review depicts Higher Education in Australia as a *system*. This concept needs to be examined more closely: A system is generally defined as “a collection of related entities with a common purpose”. As a *national* system, Higher Education is distinct from “a number of geographically co-located autonomous entities with no discernable common purpose”. We are therefore referring to relationships between the universities and other entities guided by a *common purpose*- a purpose that is principally determined by the Nation, but also influenced by both the universities within the system and the world outside the Nation. Faced with the well-known global forces of economic, intellectual and cultural competition, a scenario of dozens of disparate organizations being principally driven by internecine competition is not an option. Clearly, the dynamic in recent years has been in the direction of fragmentation of the system, driven by universities relating individually to a global environment with the main purpose being economic survival. The key question, then, is what is the structure and dynamic of this system that will enable it to best achieve its purpose as a *National* system?

It is also a *large* and *complex* system, characterised by many interdependent internal and external relationships that make responses to external changes difficult to predict. But it is also an *adaptive* system, which has the capacity to change and learn from experience. And as a *mature, complex, adaptive* system, it presently has some characteristics of *autopoiesis*- that is, a *closed, self-serving* system, as compared with an *open* system that *principally serves the purpose of some larger entity*- which, in this case, is the Nation. A delicate balance exists between autopoiesis and enlightened self-interest.

Therefore, given what is known about large, complex, adaptive systems theory and practice, we should be aware that simple, isolated or relatively small attempts to change this system are unlikely to have significant results that serve the National purpose and conversely, may well have unpredictable or chaotic outcomes.

3.0 Proposed changes to the system

If there is to be a National Higher Education System that is characterised as principally serving the National purpose, then the first issue is whether the Nation, as embodied in the Commonwealth Government, is in a position to achieve this outcome. Other than moral suasion and the force of superior reason, the Commonwealth has a diminishing financial influence, and other than contractual arrangements with individual grants, has no legal influence on these (mainly) State-mandated entities. Nonetheless, in practice, the sum-total of its influence is still strong and, in the National interest, should be strengthened further. The first use of its existing strength should be to signal to the universities that the *actual* benefits of strengthening relationships with the Commonwealth will be greater than the *perceived* benefits of strengthening alternative relationships to the detriment of the relationships with the Commonwealth and *vice versa*.

3.1 Uniform Legislative Responsibility

The first step is to establish a uniform legislative environment by establishing the universities as Commonwealth rather than State entities. The establishment of the universities under State legislation is historic and serves very little positive purpose. On the negative side, the State legislation not only creates an environment for the worst aspects of Federalism, but also imposes significant compliance costs - which are ultimately paid by the Commonwealth. In the past several decades, compliance to strengthened State Finance and Administration Audit Acts (or their equivalents) have been paralleled by increased reporting to the Commonwealth's DEST (and its predecessors). The authors estimate that this dual reporting costs an extra \$200 per EFTSU, or about \$200 Million to the System.

- **Recommendation 1:** That the Commonwealth Government should have complete legislative responsibility for the Universities.
- **Recommendation 2:** Review reporting requirements and establish single reporting system for the Commonwealth and the States (as an interim to Commonwealth take-over).

Governance: Although universities are distinctly different from private corporations and government agencies, they are required to be similarly publicly accountable. Their present governance structures reflect internal interest groups rather than public accountability.

- **Recommendation 3:** Review all university governance structures to ensure that Senates/Councils are truly independent of management. 70-80% external membership is recommended.

Re-align funding criteria: The funding of higher education institutions needs to be based on criteria that reflect the National interest. Funding should be linked to Community engagement, skills shortage solutions and environmental engagement (requires KPI's to be measured via triple bottom line reporting).

3.2 Uniform Standards

Given the small population of Australia relative to its global competition, it is hard to imagine any long-term benefits arising within Australia from the present disparate and diverging standards of the Universities. By standards we mean the structural framework of educational courses as well as the criteria by which these courses are measured. One can only assume that if Europe, with its huge population, can agree to the degree of uniformity of the Bologna Accord, then Australia would be wise to have a similar arrangement.

As well as uniform course structures- similar to the **Bologna “3+2” model**, there should be a National course accreditation system. This would include a National quality assurance system and standard grading systems. Although it is essential to maintain diversity, it is also essential to establish a National system of course comparability and quality. This would facilitate student transfer between institutions and enable rationalisation of courses. Only accredited courses would receive

Commonwealth funding. This would also lead to a higher degree of uniformity of curricula with the added benefit of economies of scale.

- **Recommendation 4:** That a National Education Standards System similar to the Bologna Accord including a National system of course accreditation be implemented.

Accountability: Modern organisations are evaluated by the extent to which they achieve their stated missions within their stated value systems.

- **Recommendation 5:** Establish a set of Key Performance Indicators that reflect the agreed National Interest. These should include aspects of:
 - Social Commercial Benefits;
 - Workforce - Undergraduate;
 - Tertiary skill level.
 - Analytical and critical thinking
 - Understanding issues and capability of joining decision making process.

Significant economies of scale and scope could be made, together with improved quality, by providing a common, or generic first-year curriculum for all university students in each university. Coordination of a National curriculum base, with certification, which could be modified locally, would provide further economies.

- **Recommendation 6:** Introduce generic, certified first year curricula in each university across each sector- Humanities, General Arts, Life Sciences, Physical Sciences, etc.

3.3 University Amalgamations and the Teaching-Research Nexus

The bottom 15 universities presently account for about 5% (about \$200M) of all R&D performed in the HE Sector. Therefore, it would appear to be almost inconsequential whether these universities participated in research. However, the perception seems to be that it is a significant amount, probably because of the depth of feeling about the fundamental issue of the research/teaching nexus coupled with the perceived shortage of research funds. The debate has been protracted and has distracted scarce and valuable management and staff time in all universities from more significant issues.

The “von Humboldtian view” was formed at a time of scarcity of both knowledge and knowledge distribution channels- a situation that no longer pertains. Further, undergraduate teaching is now predominantly informed by the vast global pool of readily accessible “mature” knowledge. The challenge for our era is to develop “teaching” methods that enable undergraduate students to be efficiently guided into and through this knowledge pool.

A concern of the “bottom 15” is that teaching loads would become unbearable if the possibility or opportunity for research were formally removed, leading to a spiral of lower teaching standards.

The most effective means of eliminating these problems would be to consolidate or merge universities. If Recommendation 1 were implemented, then consolidation would be much easier. It is envisaged the present institutions would become “University of State X- Campus Y”. Further, if Recommendation 2 were also implemented, courses could be more readily rationalised, further improving standards as well as having the benefits of economies of scale. The issue of some campuses becoming “teaching only” would be determined by the rationalisation process. Staff mobility between the campuses would also be facilitated. An appropriate reward system would also be needed to recognise excellence in teaching and excellence in development and diffusion of new and improved teaching methods and resources.

- **Recommendation 7:** That the Australian Higher Education Institutions be consolidated on a State or regional basis, with some campuses being designated “teaching only”.
- **Recommendation 8:** That campuses that are designated “teaching only” be provided with increased funding for development of teaching resources and methods.

There are too many small courses duplicated within geographic clusters of universities. The principal criterion for justifying a course should be geographic need, not institutional strategic need.

- **Recommendation 9:** Establish regionally-based needs criteria to be applied to justification and accreditation of courses.
- **Recommendation 10 :** Where a clear case exists, Institutional amalgamations should be facilitated to support economic delivery of an appropriate range of courses, and appropriate research strength, within a region.

The present wide gulf between TAFE and Universities is exacerbated by their geographic separation. Common campuses would not only reduce administrative and infrastructure costs, but also create the real possibility of shared courses.

- **Recommendation 11:** Explore the scope for single TAFE/University campuses.

3.4 Research

The following section is included, recognising that most of this issue is the responsibility of the Minister for Research and Innovation.

Amalgamation of ARC and NH&MRC: There are significant improvements and savings possible by amalgamating ARC and NH&MRC. The distinctions between health and non-health research is now quite artificial. A single, revised application process that reduces costs is required.

- **Recommendation 12 :** Amalgamate the ARC and the NH&MRC.

Review of grant funding: The present approaches to the funding of research grants create many difficulties throughout the universities. Necessary changes include:

- **Recommendation 13:** Fully fund the nominated time proportion of Chief Investigator salaries and reasonable university overheads from NHMRC/ARC grants.
- **Recommendation 14:** Establish expectation that major industry granting bodies (GRDC, FRDC etc) also fully fund Chief Investigator salaries.
- **Recommendation 15:** Establish fair funding indexation system.
- **Recommendation 16:** Allow for funding differential between teaching and research vs teaching only institutions.
- **Recommendation 17:** Introduce a “graduated” application process to minimise “failure costs”, including expressions-of-interest and application funding assistance for large projects.

3.5 Consolidation of University Innovation Offices

At present most universities have their own independent “innovation office” - a unit responsible for the provision of advice and financial and management assistance with commercialisation of intellectual property generated under the auspices of the university. Very few of these offices are successful by the criterion of generating more income than they cost to run. There are several key reasons for this, the principal ones being that the amount of knowledge amenable to commercialisation generated by any one university is quite small, the upfront costs are high, the chances of success are invariably low and the timeframes are long. The creation and continuation of these offices must be seen against a backdrop of constant and misguided public and government pressure regarding the role of universities in the process of innovation. The traditional (or historically successful) role of universities with regard to research is to improve the stock of public knowledge about processes. This knowledge can lead to the development of new and commercially successful products and processes, but not automatically or immediately. The expertise of university researchers lies in their capacity to methodically investigate and describe the principles underlying processes- their main “product” is published knowledge of these processes- a process that is inimical to the process of appropriating intellectual property. Only occasionally is this knowledge is amenable to direct commercial exploitation.

This is not to say that university researchers are irrelevant to the commercial innovation process- they are of great importance, particularly in training researchers who will eventually work in commercial environments as key problem-solvers. To be effective “innovator trainers”, university researchers need to be sufficiently

involved with commercial processes to be able to create an appropriate context for their training. This is more likely to be achieved by an appropriate positioning as “basic problem investigators/solvers” in major innovation initiatives such as Cooperative Research Centres than to be involved ad hoc as primary industrial research consulting.

The main objective of these consolidated centres would be to achieve an economy of scale efficiency in terms of the total income to expenses, and effectiveness by being able to provide a wider skill-set to service both internal and external clients.

- **Recommendation 18:** That University Innovation Offices be consolidated on a regional basis to enable greater efficiency and effectiveness.
- **Recommendation 19:** That University Innovation Offices be controlled by the Commonwealth.
- **Recommendation 20:** That when necessary, IP costs be met by the Commonwealth.

3.6 University Infrastructure

The Commonwealth Government has recognised the inadequacy of university infrastructure by establishing the Education Investment Fund. Understandably, the Government is delaying the use of these funds until the present review process establishes acceptable investment criteria. We commend the Commonwealth for its use of the word *investment* (as distinct from *capital grant* and like terms) and suggest that in establishing its investment criteria, it reflects on the renowned management author Peter Drucker’s six different forms of analysis required of any investment:

1. The expected rate of return;
2. The payout period and the investment's expected productive life;
3. The discounted present value of all returns through the lifetime of the investments;
4. The risk of not making the investment or deferring it;
5. The cost and risk in case of failure; and
6. The opportunity cost.

These analyses presume a holistic view of the investment portfolio and a view across the life cycle of each prospective investment. This view would be facilitated by the adoption of the above recommendations related to consolidation, which would minimise the pressures of “me too-ism” with its attendant unnecessary duplication of resources.

- **Recommendation 21:** Establish investment-based criteria for infrastructure funding

Infrastructure upgrading: Australian universities were once the pride of our national infrastructure, with their quality being a significant factor in encouraging students to

enrol and experience campus life. Many campus buildings and their facilities are now shabby, run-down and look outdated in comparison with many corporate environments.

- **Recommendation 22:** Significantly increase university infrastructure funding for Laboratory upgrades General buildings, IT and other facilities

All year round teaching: Academic facilities (lecture theatres, labs, etc) are usually only used for 26 weeks per year. Significant infrastructure costs would be possible with all-year-round teaching:

- **Recommendation 23:** Implement all-year-round teaching.
- **Recommendation 24:** Investigate scope for course-cost reduction to encourage summer usage.