

University Sector Review

Western Australian public universities

Final report to the Minister for Education

2 October 2023

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Letter of transmission

Dear Minister,

We are pleased to present the Final Report on the Review of Western Australia's public university sector.

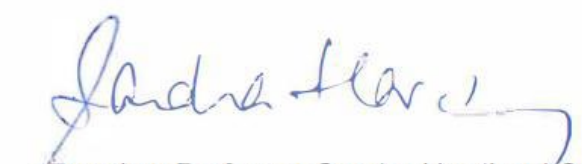
This Review is both timely and relevant. The higher education sector in Western Australia has recently witnessed some significant challenges associated with COVID-19. However, having reviewed the literature, spoken to numerous stakeholders and considered key data, the Panel has concluded that the sector has underperformed on several key measures for more than a decade.

The State is ambitious for its universities. They play a critical role in realising a positive future for Western Australia's economy and community. Achieving these ambitions requires significant reform. The Panel believes that the case for change is compelling, as the sector's performance will not recover without intervention. Therefore, we have made findings and recommendations outlining the opportunities for both structural and non-structural reform.

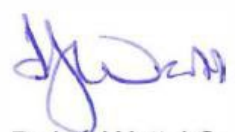
The Panel's recommendations are bold. Seen through to successful implementation, they have the potential to make a real difference to both the tertiary education sector and the State.

Should the Government decide to proceed, it will be essential to move quickly but with eyes wide open. Failure to adequately assess the costs and benefits will be counterproductive, and the opportunity to shape the direction of significant structural change in Western Australia may be lost.

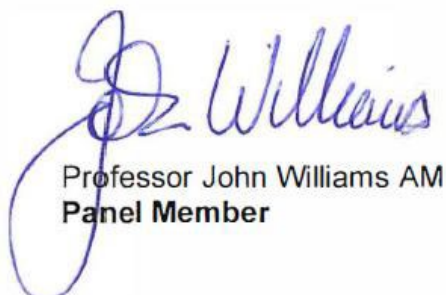
Major change will be complex and demanding, but that should not be a deterrent. To default to the status quo is to condemn the sector to 'more of the same' and miss this important opportunity for generational change.



Emeritus Professor Sandra Harding AO
Panel Chair



Dr Ian Watt AC
Panel Member



Professor John Williams AM
Panel Member



Professor Peter Shergold AC
Special Adviser

Glossary of terms and abbreviations

Term / Acronym	Definition
ABS	Australian Bureau of Statistics
AISWA	Association of Independent Schools of Western Australia
AQF	Australian Qualifications Framework
ARC	Australian Research Council
ARWU	Academic Ranking of World Universities
ATAR	Australian Tertiary Admission Rank
CBD	Central business district
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CQU	Central Queensland University
Curtin	Curtin University
DECRA	Discovery Early Career Researcher Award
DES	Department of Education Services (prior to 2017)
DTWD	The Department of Training and Workforce Development
Dual-sector university	Universities with 2 common characteristics: - substantial student load in both vocational education and higher education - substantial research and award research doctorates. Australian dual-sector universities are: - Charles Darwin University - Central Queensland University - Federation University - RMIT University - Swinburne University of Technology - Victoria University. (Bowman, et al., 2023)
ECU	Edith Cowan University
Equity group student	Students from the following categories (Australian Government Department of Education, 2023a): - Indigenous - Non-English speaking background - Low SES - Regional/remote - Students with a disability - Women in a non-traditional area
EFTSL	Equivalent full-time student load
FTE	Full-time equivalent

Term / Acronym	Definition
Go8	Group of Eight Universities
GUC	Geraldton Universities Centre
HERDC	Higher Education Research Data Collection
HDR	Higher degree by research
HR	Human resources
ICRAR	International Centre for Radio Astronomy Research
ICT	Information and communications technology
Mixed-mode courses	Blended online study with tutorial support from local experts
MRI(s)	Medical Research Institute(s)
Murdoch	Murdoch University
NHMRC	National Health and Medical Research Council
Offshore student	A student who is residing overseas for the term/semester. Prior to 2017 the definition of an offshore student excluded students who were residing overseas for the term/semester and were undertaking a course, conducted in Australia via distance education or online.
Onshore student	A student who is residing in Australia for the term/semester and is undertaking a program of study conducted by an Australian higher education provider. Prior to 2017, the definition of an onshore student included students who were residing overseas for the term/semester and were undertaking a course, conducted in Australia via distance education or online.
PSRC	Pawsey Supercomputing Research Centre
QILT	Quality Indicators for Learning and Teaching
QS	Quacquarelli Symonds (World University Rankings)
R&D	Research and development
RUC(s)	Regional Universities Centre(s)
SES	Socio-economic status
STEM	Science, technology, engineering and mathematics
TAFE	Technical and further education
TEQSA	Tertiary Education Quality Standards Agency
THE	Times Higher Education (World University Rankings)
TISC	Tertiary Institutions Service Centre

Term / Acronym	Definition
USQ	University of Southern Queensland
UWA	The University of Western Australia
VET	Vocational Education and Training
WAAPA	Western Australian Academy of Performing Arts
WAHEC	Western Australian Higher Education Council
WIL	Work Integrated Learning

Executive summary

Below is a summary of the Review findings and recommendations, which are discussed in more detail in the body of the report.

Finding 1 (p.21)

The Western Australian public university sector's performance is lagging most other Australian jurisdictions on research, research training, domestic and international student enrolments.

Finding 2 (p.22)

The potential for the 4 Western Australian public universities to contribute to the State Government's economic growth and diversification ambitions is not being fully realised.

Finding 3 (p.24)

The history of the Western Australian public university sector and international experience suggests that incremental change will not deliver significant or sustained improvement to universities' performance.

Finding 4 (p.24)

A focus on the development of further collaboration and consortia would add positively to the other recommendations of this Review, but not substitute for them.

Finding 5 (p.25)

A federal structure as an affiliation of the 4 Western Australian public universities would be administratively burdensome and add complexity and cost to university governance arrangements, without producing significant or sustained improvement to their performance.

Finding 6 (p.26)

Any merger proposal must include both the University of Western Australia and Murdoch University.

Finding 7 (p. 29)

A merger of all 4 Western Australian public universities would be overly ambitious and involve disproportionately higher costs and risks.

Finding 8 (p. 33)

The scale of the benefits and risks associated with mergers involving the University of Western Australia and Murdoch University vary significantly depending on whether a merger involves 2, 3 or 4 universities.

Recommendation 1 (p.33)

The State Government undertakes the foreshadowed further detailed work on the policy design and implementation, cost-benefit analysis, business case, change management planning, and legislative pathway with the intention of fully assessing the case for a merger of:

1. The University of Western Australia and Murdoch University; and/or
2. The University of Western Australia, Murdoch University and Curtin University.

Recommendation 2 (p.33)

Any analysis of a merger of the Western Australian public universities should include the potential impact on non-participating Western Australian universities.

Finding 9 (p.34)

Merger is a viable option, noting that any successful merger of Western Australia's public universities will require significant State Government leadership, participation, funding and ongoing support as well as genuine commitment from participating universities.

Recommendation 3 (p.34)

Should the State Government accept Recommendation 1, this work needs to be:

1. progressed as quickly as possible to minimise uncertainty for the community and university sector
2. initiated, with Ministerial oversight, by a Steering Committee of officials comprising the departments of Premier and Cabinet; Education; Jobs, Tourism, Science and Innovation; and Treasury
3. transferred to the new Office of Higher Education once established (see Recommendation 7).

Recommendation 4 (p.34)

The Minister responsible and the Vice-Chancellors of each participating university form a Strategic Working Group to oversee the proposed work on key planning and operational considerations and address problems as they arise.

Recommendation 5 (p.35)

Should the planned analysis demonstrate there is merit in a merger:

1. the State Government should contribute significantly to the transition and establishment costs
2. the process should be supported by the Office of Higher Education and a comprehensive Transition Plan.

Recommendation 6 (p.35)

Should a merger be pursued, the State Government should work with the participating universities to ensure commitment to the exercise, with a time-limited financial incentive to secure their early engagement and full support.

Finding 10 (p.36)

Higher education has not been an area of major focus for successive Western Australian Governments, and interaction between the universities and the State Government occurs across several portfolios and has tended to be transactional, fragmented and focused on the short-term.

Finding 11 (p.36)

Additional focused State Government leadership, engagement, support and advisory capacity will help deliver a more strategic and collaborative approach to higher education in Western Australia.

Recommendation 7 (p.37)

The State Government establishes a Minister for Higher Education, supported by a new Office of Higher Education, to:

1. signal Western Australia's renewed focus on a strong and collaborative university sector, embedded within a more cohesive tertiary sector
2. advise, coordinate and oversee structural reform, enhanced collaboration on State priorities, State Government funding for high priority research, delivery of specialised teaching and learning programs, improved student transition and articulation arrangements
3. work closely with the Ministers responsible for Training; Innovation and the Digital Economy; State and Industry Development; Jobs and Trade; and other relevant portfolios.

Recommendation 8 (p.37)

Ministerial responsibility for international education and closely related programs is reallocated to the Education portfolio.

Recommendation 9 (p.37)

The State Government should create an appropriately resourced Office of Higher Education within the Department of Education, to advise and support the Minister responsible for higher education.

Recommendation 10 (p.38)

The Minister responsible for higher education take immediate steps to reinvigorate WAHEC as the official forum for discussion of ongoing and emerging higher education issues.

Recommendation 11 (p.39)

The State Government should establish the Western Australian State Research, Innovation and Commercialisation Program, overseen by the Minister responsible for higher education and managed by the Office of Higher Education and with funding advice input from an advisory board, to help fund the State's emerging research and industry development priorities.

Finding 12 (p.40)

There is little coordination in the supply and management of student work placements required for professional accreditation, disadvantaging students and creating an administrative burden on the requesting university and prospective host workplaces.

Recommendation 12 (p.40)

The State Government creates a central mechanism to coordinate student work placements required for professional accreditation in government agencies to reduce duplication, remove administrative burden from universities and better support areas of workforce need.

Finding 13 (p.43)

Regional and remote communities in the State are underserved by the 4 Western Australian public universities.

Finding 14 (p.43)

Western Australia's Regional Universities Centres make a worthwhile contribution, with the potential to contribute further to a more integrated tertiary education sector.

Recommendation 13 (p.43)

The State Government supports the establishment of new Regional Study Hubs as part of a more integrated tertiary education sector, and advocates for Western Australia to receive a share of Australian Government funding for new Hubs that reflects Western Australia's geographic and demographic circumstances.

Finding 15 (p.44)

It is important that Western Australia's 4 public universities provide genuine collaborative leadership required to meet the broader education and labour market needs of the State, and deploy flexible modes of course delivery as required for a rich student experience in regional and remote areas.

Finding 16 (p.44)

The lack of a coherent and cohesive tertiary education sector in the State limits students' ability to develop the combination of theoretical and practical skills necessary to meet Western Australia's future labour market needs.

Recommendation 14 (p.47)

A Tertiary Education and Skills Advisory Council be established to support the development of a tertiary education strategy to facilitate greater collaboration between Western Australia's higher education and VET providers, industry and schools.

1. Introduction

1.1 Background to the Review

Western Australia's public universities are integral to the State's economy and society. They make an essential contribution to the professions, business, industry, government and community with their influence extending well beyond the State's borders. In particular, Western Australia's public universities are critical to:

- allowing students to pursue their educational interests and passions
- training and growing a skilled labour force for a diversified State economy
- conducting research that catalyses new knowledge and its application while supporting and driving innovation, prosperity and economic growth
- serving the community of Western Australia
- instilling a sense of active citizenship in students.

In recognition of the sector's significance to the State, the State Government has initiated various reviews of Western Australia's higher education system to ensure its universities remain fit for purpose and responsive to its changing needs. These reviews date back to at least 1967, having made recommendations on a range of matters relating to higher education including university governance, regional service provision and the role of government. A list of the higher education reviews conducted since 1967 and a summary of their recommendations is provided at Appendix A, followed by an overview of the tertiary sector at Appendix B.

The most recent review of higher education was chaired by Professor Margaret Seares AO (Seares, 2013), providing valuable insights and recommendations to:

- improve coordination and cooperation within and between sectors
- enhance access, equity and regional service provision
- develop a more holistic approach to the State's research and workforce priorities.

The State Government has recently committed to strengthening and diversifying its economy through the economic development framework *Diversify WA* and its successor *Future State: Accelerating Diversify WA*. The strategy lists 9 targeted, sector-specific diversification opportunities, including renewable hydrogen, minerals processing, carbon capture and naval shipbuilding. Taken together, these documents set out a vision for a smarter, more sustainable and diversified State (Government of Western Australia, 2023).

Realising these ambitions and commitments requires highly skilled people and world-class research and innovation from a high-performing university sector.

Having noted some areas of concern about Western Australia's performance compared to other jurisdictions, in February 2023 the State Government commissioned an independent review of the structure of its public university sector. This Review investigates some of the challenges faced over the longer term and explores whether structural change would deliver improved performance and financial sustainability for Western Australia's public university sector.

A number of the State's universities have already publicly rejected any prospect of a merger. While such initial reactions are understandable, the merits and challenges of major reform are worthy of more careful evaluation. Failure to adequately assess the costs and benefits will be counterproductive and the opportunity to shape the direction of major structural change in Western Australia will be lost.

1.2 Terms of reference

The Review's Terms of Reference were drafted in late February 2023 and shared with the Vice-Chancellors of Western Australia's 4 public universities. In response to their feedback, some final changes were made to specify the breadth of the Panel's targeted engagement, and the Review's Terms of Reference were approved by the Minister for Education on 14 March 2023.

The Terms of Reference establish the purpose and scope of the Review, the level of stakeholder engagement to be undertaken and the timeframes for reporting to the Minister for Education. While there was no open public submission process, the Panel undertook comprehensive engagement with targeted stakeholders.

The Panel has worked closely to its Terms of Reference throughout the Review. A full copy is provided at Appendix C.

1.3 Drivers for change

Each Western Australian public university can rightly claim many laudable achievements. Over time, each has made important contributions to the economic, social and cultural life of the State. However, there are areas of significant concern that have been evident for some years, including relative declines in competitive research funding, low enrolment growth and a lack of services to regional areas of the State. In some respects, the relative underperformance of Western Australia's public universities has been getting worse over time, not better.

Earlier higher education reviews have sought to set a path to improvement and while each has had some impact, this Review is undertaken in a different context. The Panel's analysis and consultation have confirmed that there are significant barriers to stronger sectoral performance, making the Review a timely and worthwhile exercise. It is the Panel's view that the case for change is compelling and immediate.

Western Australia has experienced a more significant decline in its share of Australian competitive research funding than any other state or territory. While each public university's research income increased over the decade 2011–2021, the growth has been much slower than other jurisdictions. The combined share of research income achieved by the State's 4 public universities has fallen from 9.5% in 2011 to 7.7% in 2021. The combined research income for all 4 of Western Australia's public universities is now lower than several individual interstate universities.

Research performance is strongly correlated with international rankings, and in 2023 the University of Western Australia (UWA) dropped out of the ARWU top 100, falling from 99th to 101–150th.

Western Australia once led the nation in international education. This is no longer the case. The overseas student load at its public universities has remained fairly constant since 2011, failing to keep pace with the growth in other jurisdictions. This has left the State's public universities with a 7.9% share of the Australian total in 2021, down from 11.2% in 2011. This is a missed opportunity both in promoting diversity on campus and attracting additional income to support research and infrastructure renewal. It is also a lost opportunity for the State.

Domestic student load has risen, but again represents a declining share of the Australian total, from 9.5% in 2011 to 8.9% in 2021. All 4 public universities compete fiercely for students, a significant proportion of whom do not complete an Australian Tertiary Admission Rank (ATAR).

The 4 public universities also have a small presence in regional Western Australia. Most regional and remote students either travel to Perth to study or rely on online offerings from interstate universities to study in their communities.

Finally, there is a lack of systemic engagement across the tertiary sector, with many collaborations and pockets of excellence appearing ad-hoc and reliant on individual relationships. Moreover, the public universities are not deeply embedded in the broader tertiary sector. Without a cohesive strategy and accessible pathways between Vocational Education and Training (VET), higher education and industry, it will be more difficult for the State to address its current and emerging skills deficit.

In the Panel's view, the sector has something of an insular quality. While that has served to diminish the discomfort of external competition, this approach is not sustainable, does not serve the public interest and will not deliver on the sector's potential. Western Australia's universities also need productive relationships with the VET sector, strong engagement with industry and keen interest, engagement and financial support from the State Government.

Enhancing the longer-term performance of the sector warrants intervention, involving changes for both the State Government's approach to higher education and for the universities themselves. While the right policy settings for education, skills, research and innovation will assist, no single intervention alone will secure stronger performance. Accordingly, the Review has identified structural and non-structural change options to make possible the level of sectoral performance and contribution that the State deserves. Of course, achieving significant reform is complex and requires substantial support. Priorities will need to be established. Decisions on which interventions are worth pursuing will depend on Western Australia's aspirations and appetite for change.

1.4 The Panel's approach

Initial stages

The Panel started its work at the end of March 2023. In addressing the Terms of Reference, the national and international experience of structural change within higher education was examined. Drawing on an extensive review of the literature, a framework for analysis was developed, which presented structural alignment options as a continuum, spanning from the status quo, to cooperation, coordination and merger. A table outlining these options was included in the [Discussion Paper](#) and is provided as follows.

Table 1: Structural alignment options

	Structural option categories	Definition	Examples
Status quo	No Change	Maintain current universities in existing historical genres and organisational arrangements	
Cooperation	Cooperation	Informal collaboration between individuals, groups or whole institutions in areas of research and teaching and learning activity	Brisbane Universities Language Alliance as an agreement for 3 universities to cooperate in offering languages to students without competing
Coordination	Consortia	Joint departments with shared back office, joint research centres/institutes and dual badging	Harvard-MIT Health Sciences and Technology Graduate School and Cotutelle higher degree by research (HDR) arrangements
	Federation	Independent institutions sharing governance, brand and back office functions	State-based systems as they operate in California, Georgia and Texas
Merger	Amalgamation as Western Australian university merger	Forming a new entity between existing universities in the same geographical and regulatory context	University of Manchester and current plans for South Australia
	Amalgamation as Western Australian cross-sectoral merger	Forming a new cross-sectoral tertiary institution by a merger of a university with a VET provider in the same geographical and regulatory context	Merger of the Western Melbourne Institute of TAFE with Victoria University of Technology (now Victoria University) Creation of Meadowbank Institute of Applied Technology in NSW
	Amalgamation as external merger	Forming a new entity as an existing institution merges with other existing institutions in different geographical contexts and jurisdictions	

Preliminary stakeholder consultation and environmental scan

Consultation meetings held during April 2023 allowed the Panel to hear from stakeholders and request their feedback on the proposed framework for analysis and the intended approach to the Review. A full list of stakeholders with whom the Panel met is provided at Appendix D.

With support from specialist consultant, PhillipsKPA, the Panel conducted an initial environmental scan and quantitative data analysis considering the sector's relative performance over time and across a range of metrics relevant to students, research, staff and various ranking schemes and using data drawn from a range of public sources including:

- published higher education statistical and financial reports produced by the Australian Government Department of Education
- the Higher Education Research Data Collection (HERDC)
- reports from major international university-ranking organisations
- statistics from on tertiary admissions from Western Australia's Tertiary Institutions Service Centre (TISC).

The most recent publicly available, full-year report data was used wherever possible.

The Panel notes that aspects of data and performance for 2020–21, in particular, were heavily impacted by the COVID-19 pandemic. Nevertheless, these years are included as data points in the analysis, noting that the Review also draws attention to pre-COVID performance and 2019 results where relevant.

Notwithstanding the COVID-19 disruption, the initial analysis validated the significant concerns that gave rise to the Review and identified some areas of particular concern that support a case for structural and other change.

Discussion paper and follow-up consultation

In May 2023, the Panel released a targeted [Discussion Paper](#) presenting data and information about the sector's performance across a range of areas and its chosen structural alignment options framework. This Discussion Paper invited feedback via 16 questions covering each dimension of the Terms of Reference.

The Panel provided a copy of the Discussion Paper to targeted stakeholder groups including representatives from:

- universities and associated groups
- academic staff
- student and alumni representatives
- union leadership
- industry
- government
- the wider community.

A full list of stakeholders who received a copy of the Discussion Paper is provided at Appendix E, and a list of respondents at Appendix F.¹ The Terms of Reference and the Discussion Paper were made available on the Panel's public website. In total, the Review received 39 responses from 46 stakeholder groups.²

¹ The Panel also received 4 unsolicited responses.

² The Department of Training and Workforce Development, the 5 TAFEs and the State Training Board submitted a joint response.

The insights and emerging themes drawn from responses to the Discussion Paper and the Panel's analysis informed a second round of stakeholder consultation in June and July 2023 involving:

- the Chancellors and Vice-Chancellors of each public university
- student guilds
- university academic boards
- business and industry
- Australian Government
- Western Australian Government
- Australian Universities Accord Panel
- Universities Australia
- Australian Research Council (ARC)
- National Health and Medical Research Council (NHMRC)
- Tertiary Education Quality and Standards Agency (TEQSA).

Final stages

As required by its Terms of Reference, the Panel delivered a Progress Report to the Minister for Education on 28 July 2023, summarising its work to date and indicating its next steps to bring the Review to an informed conclusion.

During August and September, the Panel completed additional analysis and the last of its targeted stakeholder engagements, seeking feedback on the matters outlined in the Progress Report and developing its final findings and recommendations.

The Panel's delivery of its Final Report to the Minister for Education at the end of September 2023 marks the completion of the Review.

1.5 Parallel developments

As mentioned, this Review takes place at a time of great reflection by the university sector nationally and internationally, coinciding with a national review of the sector and a prospective university merger in South Australia.

On 16 November 2022 at the Bradley Oration, the Hon Jason Clare MP, Minister for Education, announced details of the Australian Universities Accord, noting that this national review of the higher education sector will be undertaken with a view to driving lasting and transformative reform that will put Australia in the best position to achieve its full potential as an economy and society in the decades to come. The Accord Interim Report was released on 19 July 2023, presenting 5 priority actions for the Australian Government. Further submissions in response to this Interim Report were invited to help ensure that the Review's final recommendations lead to the best possible outcomes.

While most of the Accord's interim findings and recommended actions are beyond the scope of this Review, there are some common themes and considerations. In particular, the Interim Report identifies the need to:

- provide more support for regional and remote students, noting the Accord's recommendation to create more Regional Universities Centres (RUCs) and develop new Tertiary Study Hubs to provide services to students in outer metropolitan areas
- promote collaboration and shared best practice between institutions, improve integration of VET and higher education, address barriers between the 2 sectors and create stronger links between industry and education
- develop a mechanism to identify, coordinate and support key research priorities

- consider more coordinated governance mechanisms, noting the Accord's consideration of the merits of a Tertiary Education Commission to provide oversight, coordination and advice to the higher education sector
- consider the approach to student placements, with the Accord contemplating payment for students to facilitate this important aspect of their education and training.

None of the Accord's emerging findings and considerations diminish or challenge the need for this Review. Appearing before the South Australian Joint Committee on the establishment of Adelaide University on 4 September 2023, the Panel Chair Professor Mary O'Kane agreed there was nothing in the Accord that would prevent a merger of the 2 universities and indicated such a move would put South Australia in a good position (Government of South Australia, House of Assembly, 2023).

Furthermore, the Panel has met with Australian Accord Panel members to ensure a deep understanding of their process and these emerging findings. As such, the Panel is of the view that there is no need to delay consideration of this report pending the release of the Accord final report in December 2023.

It is also worth noting that the prospective merger in South Australia seeks to address some issues in common with the concerns that drove the establishment of this Review. The South Australian Government is concerned that its public universities are too small to remain globally competitive and reached an historic agreement on 3 July 2023 to support the creation of a new university through the amalgamation of the University of Adelaide and the University of South Australia. When the new university commences operation in 2026, it will have the largest cohort of domestic students of any university in Australia (Government of South Australia, 2023). As it stands, successfully completed, this structural change will likely have significant implications for the Australian university sector and may have particular implications for Western Australia, with UWA becoming the smallest state-based research-intensive Group of Eight (Go8) university.

2. Current performance

Data on the current performance of Western Australia's public universities was released for comment in the Panel's [Discussion Paper](#), and while some stakeholders took the opportunity to suggest additional data sources and matters of context, no matters of factual accuracy were raised with the Panel. The critical themes raised in the Panel's analysis and subsequent consultation are summarised below, as a snapshot of the sector's current performance. More detailed data, tables and charts are presented in the Discussion Paper, forming the basis for the below summary (Harding, Watt, Williams, & Shergold, 2023).

Wherever relevant, the data used during this Review was from the most recent publicly available full year report, which at the time of writing was the end of 2021.

Students and the student experience

Universities need a strong pipeline of engaged and curious students to learn and contribute to the university ecosystem and the State's future workforce and community. National and international competition for university students is strong, so it is concerning that although domestic student load has risen, current equivalent full-time student numbers at Western Australia's 4 public universities represent a declining share of the Australian total, from 9.5% in 2011 to 8.9% in 2021.

It is encouraging that in the 2022 Student Experience Survey data included in the Quality Indicators for Learning and Teaching (QILT), 2 of the 4 public universities recorded higher levels of student satisfaction than the Australian average of 75.7%. However, it should be noted that

the QILT is survey-based, generally with low response rates and long lead-times, which creates fragile data, with performance across the sector at a national level sitting within a narrow band. Nevertheless, in the 2022 student experience data, undergraduates at Edith Cowan University (ECU) reported higher levels of satisfaction with their entire educational experience than their counterparts at Curtin, Murdoch and UWA. 81.8% of ECU undergraduates reported a positive overall experience, compared with 77.8% at UWA, 75.1% at Curtin and Murdoch, and 74.1% at the University of Notre Dame Australia. ECU undergraduates were similarly more positive about their skills development, teaching quality, student support and learning resources.

While the COVID-19 pandemic affected overseas student enrolments nationally in 2021, across Australia overseas higher education student numbers were still 31.5% higher in 2021 than they were in 2011. In contrast, in Western Australian higher education institutions, there were 8.4% fewer overseas (onshore and offshore) students enrolled in 2021 than in 2011. International students matter not only because they create revenue for universities through fees which can be deployed to support education, research and infrastructure development, but also because they contribute to the workforce, build Australia's international reputation and enhance the social fabric of our communities. A report by ACIL Allen commissioned in 2020 estimated that international education contributed \$2.1 billion to Gross State Product and supported almost 12,000 direct and indirect full-time equivalent (FTE) jobs across Western Australia (ACIL Allen Consulting, 2020).

The Panel examined the onshore and offshore student enrolment status of overseas students at the 4 public universities in Western Australia and used the average for all Australian universities for comparison. Analysis of the calendar years from 2011–21 indicates the combined 4 Western Australian public universities' onshore international student enrolments fell from 19,330 to 12,893, noting that in 2019, 18,702 onshore international students were enrolled across the 4 public universities. However, performance varied across universities. While onshore enrolments fell significantly in this period at UWA and Curtin, ECU enrolments grew and Murdoch declined slightly. The impact of this decline is significant and contributed to a fall in the exports generated by international education from an estimated \$1.6 billion in 2020–21 to \$1.2 billion in 2021–22 (Government of Western Australia, 2023).

This overall decline in onshore international students presents problems for universities in both the diversity on campus and their capacity to support other endeavours, including supporting the research environment and infrastructure renewal that has been so important for many Australian universities. This trend can be contrasted with the experience of other states' university sectors and represents a missed opportunity.

It should be noted that in the first quarter of 2023, the number of onshore international student enrolments has increased to just below pre-pandemic levels – 24,051 students in 2020 compared to 23,279 in the first quarter of 2023. This welcome return is mirrored in other Australian jurisdictions.

While onshore international student numbers are relatively low, there has been an increase in offshore international numbers. However, this should not be considered a like-for-like replacement, as:

- offshore student numbers come from a smaller base
- offshore student numbers increased by 17.3% from 2011 to 2021, but onshore student numbers declined by 33.3% over the same period
- offshore students do not provide the same range of benefits to universities or the State.

An analysis of 2021 data on equity group students drawn from higher education statistics published by the Australian Government Department of Education established that if all 4 universities are combined, the proportion of equity group students is lower than the national average for Indigenous and regional students and students with a disability, but higher for low

socio-economic status (SES) and remote students and for women in a non-traditional area. It also established that:

- Equity group students represented a smaller proportion of domestic enrolments at UWA than at the other 3 public Western Australian universities in each of the above categories except for students with a disability.
- Indigenous and low SES students represented a higher proportion of Murdoch's domestic enrolments, as did students with disability and women in a non-traditional area.
- Regional and remote students were most strongly represented at ECU but are underrepresented in comparison to the Australian university average.
- Curtin showed relatively high proportions of equity group students across all categories.

It is concerning that regional and remote students are underserved by Western Australian public universities, which have not established a significant physical presence in the regional or remote areas of the State, nor leveraged the opportunities provided by the RUCs for collaboration and course delivery.

Research

The Western Australian public university sector has experienced a more significant decline in its share of Australian competitive research funding than any other Australian state or territory. This comes at a time when greater reliance on research and development (R&D) is needed to diversify the Western Australian economy. Accordingly, the Panel focused on understanding the causes of decline, and whether any structural alignment options in the framework could improve the research performance of the university sector.

The combined research income for the 4 public universities was \$425.0 million in 2021 which was lower than some single interstate universities, for example the University of Melbourne (\$634.2m), the University of Sydney (\$596.3m), Monash University (\$563.3m), the University of New South Wales (\$534.8m) and the University of Queensland (\$441.5m). However, it was higher than the Australian National University and the University of Adelaide. Like UWA, the latter 2 universities are smaller scale than the other Go8 members.

While the research income of each of the 4 universities increased over the decade 2011–21, for UWA, Murdoch and ECU the rate of increase was much less than for the Australian university system as a whole, with the combined research income share of the 4 Western Australian public universities falling from 9.5% in 2011 to 7.7% in 2021.

The ARC flagship research grant program is the Discovery Projects scheme, which distributes between \$200 million and \$300 million each year. Of the 4 Western Australian public universities, only Curtin and UWA are major participants, having been responsible for approximately 91% of the applications considered from the State and receiving approximately 96% of the funding. In the period 2016–23, the number of applications from the 4 Western Australian public universities fell from 306 to 132, compared to the national totals of 3,584 and 2,588. The State's total funding fell from \$20.4 million to \$10.7 million in the same period, a reduction of 47.6%, compared to a 9.6% decline nationally. Consequently, the State's share of the funding pool fell from 8.3% to 4.8%. By way of comparison, the State's total Discovery Projects funding was slightly ahead of that won by the University of Technology Sydney at approximately \$9.1 million.

The Discovery Early Career Researcher Award (DECRA) scheme is another significant ARC funding program that provides focused research support for early career researchers. In the period 2016–24, the number of applications considered nationally fell from 1,220 to 1,023, with some fluctuations. Of those, the total applications considered from the 4 Western Australian public universities fell from 97 (8% of the national total) to 52 (5.1%), with a peak of 100 (8.3%) in 2018. Despite total DECRA funding rising from \$70.7 million in 2016 to \$86.3 million in 2024, Western Australia's public universities' share remained almost unchanged at approximately

\$4.6 million. By way of comparison, the State's total 2024 DECRA funding of \$4.65 million was slightly lower than that won by Queensland University of Technology at approximately \$4.8 million.

In 2021, UWA had an HDR student load (doctorate by research plus masters by research) of 1,798 equivalent full-time student load (EFTSL), which was 7th out of the Go8 members. The combined HDR load of all 4 universities was 4,139 EFTSL in 2021, only 16% higher than Monash University which had the highest HDR load of any Australian university. Research students comprised 9.0% of total load at UWA, 3.7% at Murdoch, 3.5% at Curtin and 2.8% at ECU in 2021. The figure for all 4 public universities combined is 4.6%, lower than each of the Go8 universities and the University of Tasmania and similar to the University of Newcastle.

Rankings

The Panel reviewed the rankings data for the 4 public Western Australian universities in 3 of the main ranking systems: the Academic Ranking of World Universities (ARWU), Quacquarelli Symonds (QS) World University Rankings, and the Times Higher Education (THE) World University Rankings, including the THE Young University Rankings. A summary of the methodologies used by these 3 ranking systems is provided at Appendix G.

Strong international rankings give universities visibility, which helps attract students, staff and research funding, thereby boosting revenue and research performance, potentially setting up a virtuous cycle (Boling et al., 2017; Pinheiro et al., 2017). The ARWU assesses 6 performance indicators relating to research excellence, and its rankings are generally accepted as more reliable because data collected does not rely on survey results or perceptions. However, the QS and THE rankings, which both involve surveys, arguably have a greater influence on the choices of prospective international students.

A change in the 2024 QS rankings methodology has resulted in an improvement in the position of most Australian universities. The University of Melbourne, the University of Sydney and the University of New South Wales are now all ranked within the top 20 in the world on the QS global rankings. UWA is ranked 72nd in the 2024 QS global rankings (compared with 90th in the 2023 rankings), ECU 529th (601–650th in 2023), Murdoch University 431st (561–570th in 2023) and Curtin University 183rd (193rd in 2023).

In the most recent ARWU, UWA was ranked 101–150th (7th in Australia) having dropped progressively from its rank of 96th in 2021 and 99th in 2022. Curtin was ranked 201–300th (9–15th), Murdoch was 401–500th (23–24th) and ECU was 601–700th (27–28th). For comparison, the University of Melbourne was ranked 35th (1st in Australia), the University of Queensland 51st (2nd), the University of New South Wales 72nd (3rd) and the University of Sydney 73rd (4th). In the 2024 THE rankings, UWA continues a slow decline from 131st to 143rd, while Murdoch rose from the 401–500 band to the 351–400 band. ECU and Curtin remained within the 351–400 and 201–250 bands respectively (Times Higher Education, 2023).

In addition to these overall ranking systems, other schemes focus on specific sets of universities or particular aspects of university activity. For example, the THE Young University ranking compares universities established in the last 50 years. Curtin is the most highly ranked of the eligible public universities on this measure, moving up the rankings from 81st in 2015 to 37th in 2023. ECU moved from 90th in 2015 to 83rd in 2023. Such movement is expected as universities mature within this ranking system. However, Murdoch saw its relative performance drop during the same period, from 65th to 84th.

Engagement and collaboration

Working with business, industry, community and policymakers, universities play a crucial role in leading and responding to innovation and developments at home and abroad, driving economic and social benefit for the State. Research and the translation of insights and innovations into

products and services are also critical to Western Australia's future. Yet Western Australia's universities have been accused of lacking systemic and productive collaboration with government, industry and other tertiary education providers.

There is a clear need and opportunity to develop new partnerships, courses and lines of inquiry through research to support existing and emerging industry development and skills requirements. There are opportunities for the Western Australian public universities, in collaboration with industry, to play a stronger role in creating and sustaining partnerships between higher education, VET and industry, not just in Perth but in regional centres across the State. RUCs play a key role in providing students in regional and remote areas access to tertiary education without having to leave their community, and physical spaces and resources to support online learning, yet Western Australia's public universities have had minimal engagement with them, while interstate universities have been providing the flexible mixed mode courses required for a meaningful student experience.

Dual-sector universities with VET and higher education components are a feature of tertiary education in other states and territories, as are technical and further education (TAFE) colleges and institutes of applied technology that deliver progressive credentialling between VET and higher education. Successful dual-sector operations exist in Western Australia but are less common, with the best-known local example being the Western Australian Academy of Performing Arts (WAAPA), where students can access both undergraduate and postgraduate degrees and VET courses at Certificate, Diploma and Advanced Diploma levels. North Metropolitan TAFE offers a Certificate IV bridging course into ECU nursing and is developing other pathways to ECU as part of the Perth City Deal. North Metropolitan TAFE has also opened Western Australia's first Cyber Security Training Centre in collaboration with ECU, AustCyber, the City of Joondalup and the WA Police Force.

Finding 1

The Western Australian public university sector's performance is lagging most other Australian jurisdictions on research, research training, domestic and international student enrolments.

3. The Reform Agenda

3.1 The Ambition

Western Australia is ambitious for its universities and what they can deliver for the State. This ambition is reflected in this Review's Terms of Reference, seeking insights and recommendations about changes that will improve the performance of the public university sector to benefit Western Australia's broader interests, both through economic growth and by meeting its future knowledge and skills needs. Achieving this will require not only sustained effort, but also difficult and far-reaching change.

This Review is both timely and important. Western Australia's economic prosperity has traditionally relied on its primary industries, particularly agriculture and mining. While these industries remain critical, the State's capacity to deliver education, skills, research and innovation is vital. Supporting both primary and emerging industries requires greatly enhanced human capability and a new boom of knowledge and ideas. The State's leading sustainable resource will be a highly educated and skilled population coupled with entrepreneurial ability and the capacity to innovate.

Western Australia is well placed to drive towards even greater long-term success. There have been promising signs of interest and a willingness to invest in the contribution universities can make, including through the establishment of this Review and the Government's commitments

embedded in the State's *Innovation Strategy* and *Future State: Accelerating Diversify WA*. Well executed, this agenda holds in prospect a new and exciting economic era for Western Australia.

Universities and the wider tertiary education sector, have a vital role to play in this future. Their job is to deliver the education, skills, research and innovation that both international competitiveness and sustained economic and social prosperity demand.

However, realising this positive future requires the Western Australian Government to recalibrate its approach to higher education and research. While the higher education sector is often considered primarily a Commonwealth Government responsibility, it must become a significant priority for the Western Australian Government as well. This recalibration has happened in other states and involves change for both the universities and for the State Government. It requires a fresh focus on what the sector can and should deliver. Lessons can be learnt from other jurisdictions, but they need to be adapted to suit Western Australia's distinctive strengths. For example, while much is said about the disadvantages of Western Australia's geography and isolation compared to the eastern states, they also provide significant opportunities for the State and its universities as global mobility accelerates post-COVID. Western Australia is seen as a relatively safe and welcoming place to live, work and invest. It shares a time zone with some of the most populous regions in the world and has the potential to be a destination of choice for students, visitors and people seeking opportunity and a new life.

It is in this context that seeking to strengthen Western Australia's competitive position by drawing on the work and potential of its public universities makes such great sense. Across many economies, the focus needs to be not only on strengthening traditional industries but also on cultivating the new resources boom, relying on people's education, skills, and the capacity to innovate and respond to changing labour market demand.

It is time for Western Australia's universities to play an increasingly strategic and powerful role in the State's future. A step-change, sustained in its effects on performance, is required for this to occur.

Finding 2

The potential for the 4 Western Australian public universities to contribute to the State Government's economic growth and diversification ambitions is not being fully realised.

3.2 Structural alignment options

As indicated in section 1.4, the Panel developed a continuum of structural alignment options (Table 1) drawing on experiences from other jurisdictions and based on the work of Harman and Harman (2003). This framework, which was outlined in the [Discussion Paper](#), has been used to guide the Panel's assessment of the various options that might apply to the Western Australian public university sector (Harding, Watt, Williams, & Shergold, 2023).

It is important to note that recommendations presented elsewhere in this report support forms of coordination and collaboration presented in Table 1. Those recommendations will facilitate a variety of improved performance if they are accepted and implemented successfully and, for the most part, do not rely on any particular structural change to the universities as individual institutions.

The Panel has considered the range of options presented in its continuum: status quo, cooperation, coordination (consortia or federation) and merger.

3.2.1 Status quo

The relatively small scale of the Western Australian public universities creates a problem. While 'bigger may not be better', with many smaller, albeit very well-endowed universities worldwide

significantly outperforming their larger counterparts, Australia's higher education funding system incentivises universities to operate at larger scale to enhance their sustainability. Most Australian universities are not supported by extensive donations and bequests, domestic fees are capped, and subsidies are limited. Consequently, Australian universities must generate much of their discretionary funding from international and postgraduate student fees, and through commercial activities and administrative and operational efficiencies.

In this context, the prevailing economic model favours larger universities to generate revenue so that they can invest in staff, research, equipment and facilities. This dynamic means larger scale offers significant benefits with Western Australia's relatively small-sized institutions likely to work against better performance in the medium to long term. There is also unlikely to be any sudden or dramatic shift in the current funding model that will significantly challenge the advantages of size and scale and make the status quo a more viable option for the 4 Western Australian public universities.

The university sector's contribution to Western Australia's economy and workforce development is not as strong as it could and should be. If Western Australia is to achieve its *Accelerating Diversify WA* vision and aspirations to become a smarter, more sustainable and diversified state by 2035, the State Government will need to take a more proactive role to help its university sector excel. Moreover, its performance on some important social dimensions is weak, particularly educational delivery in regional areas.

In this context, maintaining the status quo is a relatively poor option for Western Australia in the medium to long term. The likely outlook would be slight to modest growth in domestic student numbers, with a continuing decline in national market share and little change in the number of HDR students. However, noting the recent increased activity and support from the Western Australian Government for universities' international efforts, an uptick in international student numbers might be anticipated.

Student satisfaction ratings are currently positive and would most likely remain so, but there would be little change in opportunities for regional and remote students. Catalysing innovations in teaching and learning practice will be particularly challenging for those universities that are smaller and more financially constrained.

Growth in research income will likely continue to slow, with continuing loss of national market share, declining applications for competitive funding schemes and additional adverse impacts to funding from research block grant programs. Noting that UWA has already dropped from 99th in 2022 to 101–150th in the 2023 ARWU³, no rapid change in positions within international ranking systems is anticipated, but lagging performance in comparison to other jurisdictions is likely to have a negative impact over the medium and longer term.

In terms of financial performance, revenue will continue to grow modestly, possibly with a short-term boost with the return of international students, but the growth will likely again be slower than interstate universities, resulting in a continued decline of total sector revenue share, and strong expenditure pressures, particularly for Murdoch University, will provide limited opportunity to build reserves and fund innovation.

The Panel is mindful that past behaviour is a reasonable predictor of future achievement, and although there will be pockets of outstanding outcomes, on a systemic level, improvement will be challenging in very competitive markets. This environment of hyper-competition between universities and with other tertiary education providers detracts from, rather than enhances, the State's interests as each university vies for its share of students, staff and funding.

³ <https://www.shanghairanking.com/news/arwu/2023>

Maintaining the status quo would be the easiest and least disruptive option, particularly in the short term. However, it would deliver the State more of what it has seen over the past 10 years: slow growth and modest performance, but a continually falling share of an increasingly dynamic national and international market. To default to the status quo is to miss the opportunity for generational change.

Finding 3

The history of the Western Australian public university sector and international experience suggests that incremental change will not deliver significant or sustained improvement to universities' performance.

3.2.2 Cooperation and consortia

Cooperation in the form of informal and some formal collaboration between individuals or groups in research and teaching is already taking place at Western Australia's public universities. These activities were outlined in submissions to this Review and describe collaboration through joint research centres, institutes and partnerships, reciprocal access to libraries for both students and staff, and joint authorship of academic publications. While these examples are positive, much of this activity appears to be ad-hoc, lacking a systemic approach, and dependent on individual relationships and trust for its ongoing success.

Consortia, where joint departments share back office services, joint research centres and dual badging have merit, with particular relevance in health and medical research. Examples of consortia in other jurisdictions exist between Harvard-MIT Health Sciences and Technology Graduate School and in HDR activities such as cotutelle arrangements. Closer to home, the Parkville Precinct in Melbourne successfully combines the activities of universities and Medical Research Institutes (MRIs) with a focus on medicine and health (Parkville Precinct Medical, 2023).

A positive example of consortia activity in Western Australia is the Pawsey Supercomputing Research Centre (PSRC), an unincorporated joint venture of Western Australia's public universities – Curtin University, Murdoch University, UWA, ECU as an associate founding member and Commonwealth Scientific and Industrial Research Organisation (CSIRO) – Australia's national science agency.

The Panel notes that although there is merit in considering both cooperation and consortia as mechanisms to improve the performance of Western Australia's universities, and these opportunities should be pursued where possible, neither offers a long-term solution to the problems currently limiting their performance.

Finding 4

A focus on the development of further collaboration and consortia would add positively to the other recommendations of this Review, but not substitute for them.

3.2.3 Federation

A federated structure, affiliating the 4 public universities as part of a larger system, could yield benefits to the universities involved and to the broader community in which they are embedded. It would be a novel development for Australia at this scale.

The massive University of California system is a much-cited example of such a structure, noting it is supported by a State Government with a nominal Gross Domestic Product that would place it as the 5th largest in the world, sitting between Germany and India (The World Bank, 2022). California's demography and geography differ vastly from Western Australia, with a higher education sector operating at different scale and scope.

While a federated system could deliver benefits compared with the status quo, establishing and operating such a structure in the Western Australian context is complex, with great uncertainty about the benefits it would yield in the face of significant challenges.

If, as per the University of California system, federation serves merely as an overlay that brings together the existing universities as campuses of a new expression of a University of Western Australia, with individual autonomy largely preserved in terms of admissions and institutional governance, then the benefits of a federated system are not clear. Such an approach would imply business as usual but with additional governance oversight through a Board of Trustees, creating another layer of bureaucracy for a sector that is already closely governed and regulated at multiple levels with constituent campuses co-located in one modest sized city.

If a federated system required specialisation across campuses, with different disciplines being taught exclusively at particular campuses, student choice would be highly constrained, and flight to other jurisdictions in search of greater choice may follow. In the case that no or limited campus disciplinary specialisation is delivered, it is difficult to discern the benefits of a federated system in terms of the teaching task, with participating campuses operating largely autonomously.

Specialisation in a federated system may assist the research endeavour, particularly where important research effort is combined and large research infrastructure shared, although a federated structure is not essential to achieving this type of collaboration across campuses. Federation should yield benefits in terms of international education, given a stronger presence in key markets.

However, it is worth noting that, considered as a single university, a federated Western Australian public university would be the largest in Australia by student load and that this size would likely work against performance in international rankings like QS and THE that focus on teaching, learning and the student experience. That said, benefits may be realised in the research-based ARWU if the federated university was assessed as a single institution. It should be noted that the University of California's component universities are ranked separately.

In addition, governing and managing a university system of this size and scale, coupled with the demands associated with successfully establishing and operating a federated structure, would be a very significant leadership task with a challenging risk profile. It is likely that moving to a federated structure would create major disruption for minimal benefit.

In light of the myriad complexities and limited demonstrable benefits attending such a structure in the Western Australian context, the Panel does not recommend pursuing this option further.

Finding 5

A federal structure as an affiliation of the 4 Western Australian public universities would be administratively burdensome and add complexity and cost to university governance arrangements, without producing significant or sustained improvement to their performance.

3.2.4 Merger

The Panel is alive to the history of mergers and proposed mergers in the Australian and Western Australian contexts and notes that many existing and successful Australian universities are themselves a product of mergers in the late 1980s and early 1990s, with one demerger also a feature of that period.

The Panel also notes that this Review is the first step in considering structural change and recognises that adoption of any proposed reform will be subject to further detailed work, including cost-benefit analysis and a business case. This forward work is essential to any structural reform pathway. That being said, to inform its recommendations, the Panel has completed a preliminary analysis on the likely outlook, benefits and risks of different merger combinations based on the latest available data (2021 unless indicated otherwise).

Based on the Panel's analysis, Murdoch University does not have the scale or scope to compete with a merged institution, meaning any amalgamation that does not involve Murdoch would put the long-term viability of that university at significant risk. Similarly, given its scale and research ambitions, leaving UWA out of any merger arrangement would put it at risk, leaving the State with the smallest state-based Go8 and without the scale and capacity to compete against a larger, merged institution.

By contrast, Curtin University is of a size and scale, and sufficiently distinctive, that it is less likely to be as vulnerable to competition from a merged entity that does not include it, unlike the 2 smaller universities. The Panel considers that, left out of any merger, Curtin University could continue in its position as a standalone institution in Western Australia. However, looking at the Western Australian university sector as a whole, it is worth considering Curtin University as a participant in a possible merger.

ECU exists as a clearly differentiated university, with unique offerings and opportunities for further growth independent of any merger. While a merged institute involving other universities would have significant implications for ECU, the Panel is satisfied it could further consolidate its distinctive position and remain viable in a reinvigorated market, particularly if it was encouraged and supported to expand its cross-sectoral offerings and engagement with the VET sector alongside consolidating its higher education niche.

Finding 6

Any merger proposal must include both the University of Western Australia and Murdoch University.

The present-day effect on institutional scale and performance of merger options that include UWA and Murdoch University are presented below, followed by a discussion of potential benefits and risks of 3 merger options.

Option 1: Merger of the University of Western Australia and Murdoch University, with Curtin and Edith Cowan universities remaining as standalone institutions

This option would deliver 2 Western Australian public universities of medium size (the combined university and Curtin) and one just over half the combined university's size (ECU).

Based on 2021 numbers, a combined Murdoch University and UWA would have a total student load of 35,397 EFTSL (11th largest in Australia), similar to Griffith University. It would have a domestic student load of 25,451 EFTSL (13th largest), similar to Curtin, the University of Technology Sydney and Macquarie University. It would have 2,921 (headcount) regional and remote students enrolled, which would be 8.2% of its domestic enrolments, well short of Curtin and ECU. Its overseas student load would be 9,946 EFTSL (7th largest), higher than Curtin but still significantly lower than next largest, the University of New South Wales, which would be approximately 28% of its total load, similar to Bond University. It would have 4,914 international students enrolled onshore (15th highest), lower than the University of Tasmania and similar to Griffith University. It would have a HDR student load of 2,370 EFTSL (6th), which would be 6.7% of its total load (6th).

The combined university would have 5,223 staff FTE, including estimated casual staff, which would be the 6th largest staffing complement in the Australian university sector. Of those, 2,050 FTE would be academic staff (6th largest).

The combined university would have 1,787 staff FTE involved in research (teaching and research or research only), and a combined research income of \$276.7 million (8th largest in Australia), but with little initial impact beyond UWA's current performance in application and success rates for ARC and NHMRC grants, given Murdoch is a minor participant in both.

The combined university's ARWU ranking would improve and be estimated to sit at around the 85th position globally (ShanghaiRanking Education Information Consultancy Co.Ltd., 2022). However, its ranking in both the QS and THE would likely fall given the size of the combined student load and may be further affected by any initial negative reputational impacts of the merger.

Financially, the combined university would have a total revenue of \$1.53 billion, the 6th largest of any university in Australia, and in 2021 would have generated an operating margin of 14.2%, as compared to 13.6% for the sector. It would have produced operating margins higher than the sector in 4 of the past 5 years. Its net assets would be \$3.36 billion, or 5th largest in Australia.

In this scenario, ECU and Curtin remain as standalone institutions. The relative size and differing roles of the 3 universities would position each for growth and success in line with their distinctiveness.

However, it should be noted that this merger option would not address all barriers to improved performance. The universities would still need to engage collaboratively in much more compelling and demonstrable ways to ensure that the sector as a whole works together more efficiently and effectively to lift overall performance, addressing problems and providing opportunities for each other, for industry and for the community. Successful implementation of the Review's other recommendations in addition to the successful realisation of this merger option would support a lift in performance.

Option 2: Merger of the University of Western Australia, Murdoch University and Curtin University, with ECU remaining as a standalone institution

This option would deliver 2 Western Australian public universities: one extremely large (the combined university) and the other just under 30% of the merged university's size (ECU).

Using 2021 numbers, the combined university would have a total student load of 69,994 EFTSL (the largest in Australia), which is 3% larger than Monash University. It would have a domestic student load of 50,908 EFTSL which would also be the largest in Australia and 37% larger than Monash. It would have 7,554 (headcount) regional and remote students enrolled, which would be 10.2% of its domestic enrolments, below the proportions enrolled by Curtin and ECU individually and the national average. Its overseas student load would be 19,036 EFTSL (5th largest), approximately 27% of its total load, placing it between Swinburne University of Technology and the University of Adelaide. It would have 8,706 international students enrolled onshore (9th highest), placing it between the University of New South Wales and Deakin University. At 3,595 EFTSL, the HDR student load at the combined university would be the largest in Australia, exceeding Monash University.

The combined university would have 8,805 staff FTE, including estimated casual staff, which would be the 3rd largest staffing complement in the Australian university sector. Of those, 3,268 FTE would be academic staff positioning the combined university as the 4th largest in Australia, sitting above Monash University.

Around 2,733 staff FTE would be involved in research (teaching and research or research only), and a combined research income of \$402.2 million positions the combined university as the 6th largest in Australia on this metric. In 2023, it would have submitted 127 applications for \$10.7 million worth of ARC Discovery Grants (7th in Australia), which would be one place higher than UWA alone.

The ARWU ranking for the combined university would be expected to improve well beyond 85th in the world rank estimated for an Option 1 merger, but its ranking in both the QS and THE would be expected to fall in light of its extremely large student load and should there be any negative reputational impacts of the merger.

Financially, the merged university would have a total revenue of \$2.52 billion, the 4th largest of any university in Australia, and in 2021 would have generated an operating margin of 13.1%, as compared to 13.6% for the sector as a whole. It would have produced operating margins broadly in line with the sector over 5 years up to and including 2021. Its net assets would be \$4.88 billion, or 3rd largest in Australia.

In this scenario, ECU remains a standalone institution alongside a very large, merged university. There are inherent risks in a much smaller university competing with a large and well-funded institution that has greater disciplinary reach and stronger rankings performance. That said, the Panel believes that ECU's niche and distinctiveness positions it well, with a different market position in terms of disciplinary strength and level of study.

Option 3: Merger of all 4 Western Australian public universities

This option would deliver almost immediately a single extremely large Western Australian public university, presenting an unprecedented leadership challenge not faced by other large Australian universities that have had the time and opportunity to grow organically over decades.

Again using 2021 numbers, the combined university would have a total student load of 89,238 EFTSL (the largest in Australia), 32% larger than Monash University, more than 4 times the median size of Australian universities and among the 80 largest in the world by student load. It would have a domestic student load of 66,350 EFTSL which would also be the largest in Australia and 70% larger than Monash. It would have 11,014 (headcount) regional and remote students enrolled. Its total onshore and offshore overseas student load would be 22,888 EFTSL (4th largest), approximately 25.6% of its total load and placing it between Swinburne University and the University of Technology Sydney. Of that, 12,893 international students would be enrolled onshore (4th highest), placing it between the University of Melbourne and RMIT University. At 4,139 EFTSL, the HDR student load at the combined university would again be the largest in Australia, exceeding Monash University.

The combined university would have 10,732 staff FTE, including estimated casual staff, which would be the largest staffing complement in the Australian university sector. 3,139 FTE (excluding casuals) would be academic staff, positioning the combined university as the second largest in Australia, behind the University of Melbourne.

Around 3,196 staff FTE would be involved in research (teaching and research or research only), and a combined research income of \$425.0 million positions the combined university as the 6th largest in Australia on this metric. In 2023, the combined university would have submitted 132 applications for \$10.7 million worth of ARC Discovery Grants (7th in Australia), which would be one place higher than UWA alone.

The ARWU ranking for the combined university would be expected to place it around 39th position globally and 2nd nationally, behind the University of Melbourne (ShanghaiRanking Education Information Consultancy Co.Ltd., 2022), but with its ranking in both the QS and THE expected to fall.

Financially, the merged university would have a total revenue of \$3.05 billion, the 3rd largest of any university in Australia, and in 2021 would have generated an operating margin of 13.4%, as compared to 13.6% for the sector as a whole. Its net assets would be \$5.96 billion, or 3rd largest in Australia.

This scenario would create a university of unprecedented size within the Australian higher education system and with unprecedented speed. Creating this mega university would be an even more complex and costly exercise than the already ambitious Option 2 and come with even more of the same greatly escalated risks and logistical challenges of a federated structure. While the potential benefits are significant, in the Panel's view the risks and costs would be almost prohibitive, and managing, governing and operating a university of this scale without limiting student choice and diversity of offering would be a profound leadership challenge. Regardless of the benefits, it would be a very high risk proposition for the State.

The risk relates to the complexity of any transitional arrangements, including the harmonisation of systems, processes and cultures across 4 institutions. The size of the merger would likely require longer timelines and extraordinary leadership and management capabilities. Moreover, this set of highly complex changes would need to be undertaken while managing business as usual within the legacy universities.

While Australian universities operate within a national and international context, the diminishment of internal Western Australian competition must be balanced against the overall creation of additional capacity to invest in the State's academic endeavours.

Finding 7

A merger of all 4 Western Australian public universities would be overly ambitious and involve disproportionately higher costs and risks.

Given the the myriad complexities and unprecedented scale a single university would create in the Western Australian context, the Panel does not recommend pursuing this option further.

In light of the above, the following sections address Options 1 and 2 only.

Potential benefits

Options 1 and 2, successfully implemented, would provide some valuable opportunities for growth and positioning in the State, nationally and internationally. Assuming successful implementation, most potential benefits would be greater for the more ambitious Option 2 merger. However, these potential benefits are matched by much greater complexity and associated risks.

For students, either merger option and the resulting combination of the existing universities' course profiles would provide access to a broader range of subject and course offerings within a single institution. Greater depth within disciplinary areas would also be a potential benefit for staff and students. New combinations of staff and access to some additional resources resulting from rationalisation of various back office functions and other duplicated effort could promote innovation in course design and delivery methods. While there are some external limiting factors on local domestic student supply, unproductive local competition would be reduced, and taking the opportunity to renew curriculum with additional and refreshed courses and a new university identity could attract additional demand from both school leavers and mature age entrants within the State, and possibly beyond.

Improvements in performance could also lead to an increase in onshore international students, especially if there was the expected uptick in the combined university's global university rankings.

Additional academic staff, and increased research activity catalysed in a merged institution, would provide additional supervisory capacity and research opportunities that could attract HDR students, post-doctoral candidates, as well as early and mid-career researchers from interstate and overseas. Under Option 2, the combined institution might be expected to attract an additional 1,000 EFTSL if it reached the Go8 average HDR proportion.

Both options would provide further opportunities for a merged institution to better service parts of the metropolitan area beyond the central business district (CBD), particularly south of the river, without existing institutions expanding into other areas and potentially duplicating existing services.

For regional and remote parts of the State, a merger could increase subject and course offerings and provide additional resources for innovation in delivery methods and student access. A larger institution would be better positioned to develop a strong portfolio of undergraduate and postgraduate coursework degrees with rigorously designed teaching and learning materials that could be delivered online and supported by local staff in the regions. It could also develop standardised and transparent processes for recognition of prior learning and pathways across all courses and campuses, simplifying the different arrangements currently offered across the individual universities.

For staff, a merged institution, particularly under Option 2, would have larger and more diverse staff teams and access to more extensive facilities than the component universities working alone. This would provide additional collaborative and collegial opportunities, promote innovation in teaching and research, and offer enhanced academic career pathways and promotion prospects. A new university with a clear and ambitious vision could be attractive to new staff nationally and internationally, especially if there is a boost in international rankings following the merger.

For research, mergers can bring improved opportunities through collaboration and interdisciplinary research initiatives, and a broader set of capabilities and expertise through which universities can attract more funding and undertake larger-scale and more complex research projects that may not have been feasible individually (Georghiou, 2015). A merged university in WA would bring together researchers and infrastructure currently dispersed across different institutions, thereby creating greater critical mass of activity in areas in which this is currently lacking. This would also provide a stronger foundation for commercialisation activity. A typical Australian university with a similar research staff FTE to the merged university under Option 2 generates approximately 12% (\$48 million), and a typical Go8 approximately 33% (\$133 million) more research income than UWA, Curtin and Murdoch combined.

For rankings, the literature on university mergers identifies that a potential benefit from merger is improved national and international ranking and visibility which helps attract students, staff and research funding, thereby boosting revenue and research performance, potentially setting up a virtuous cycle (Boling et al., 2017). Estimates undertaken by ShanghaiRanking prior to this Review has indicated that either merger option could be expected to boost the combined university into the ARWU top 100 in the world (ShanghaiRanking Education Information Consultancy Co.Ltd., 2022).

Considering prospective financial performance, a merged institution with a clear and compelling vision and performing well could be expected to boost revenue in the medium term from a number of sources, including research funding, contracts and consultancies, growth in domestic students including fee-paying postgraduates, and growth in international fee-paying student

numbers. This improved performance could be expected to result in higher ranking over time which, strongly marketed, could increase the number international students onshore. It is noteworthy that an average Australian university with similar total EFTSL as that achieved by Option 2 could be expected to earn approximately 19% (\$500 million) more revenue than the sum of the 3 component universities. Put differently, publicly available data indicates that the merged university would have had a total load of 69,944 EFTSL. An Australian university with almost 70,000 EFTSL would be expected to have approximately \$3 billion in revenue. A combined UWA, Murdoch and Curtin had revenue of \$2.52 billion in 2021.

Finally, a merged university would be able to realise economies of scale over time, especially in governance and back-office functions. A merger provides opportunities to implement unified finance, human resources (HR), student management and learning management systems. This would involve substantial initial setup costs, but over time could be expected to reduce the staffing required to operate these systems. Medium-term savings should be available in non-academic staff expenditure, noting that Curtin and Murdoch currently allocate a higher share of their expenditure to non-academic staff than the sector as a whole. For example, under Option 1, in 2021 expenditure on non-academic staff would have been \$13 million less under the sector average, and \$31 million less under the Go8 average. Under Option 2, the corresponding savings would have been \$28 million using the sector average and \$59 million at the Go8 average.

In short, a merged university would expect to spend fewer resources over time on administration and more resources on the academic endeavour, noting that the business case for the proposed merger in South Australia anticipates growth in total staff in the order of 1,200 FTE (University of South Australia and The University of Adelaide, 2023). Over the longer term, there may also be cost savings from the rationalisation of campuses and courses attached to both merger options, with the potential to provide additional resources for investment and innovation and better support for regional and remote campuses.

Potential risks

Merger is a highly complex leadership and management task and would require significant funding and community support to secure a successful outcome. The international literature provides myriad examples of both failed and successful mergers, with attention to risk, critical enablers and conditions for success highlighted.

While both merger options identified through the Review come with risks, the larger and more ambitious Option 2 merger would be significantly more complex to implement and has a more challenging risk profile and larger associated implementation tasks.

Short to medium term disruptions and controversy relating to the merger process could deter some domestic students from studying at the merged institution or in Western Australia. Furthermore, under Option 2 there could be possible longer-term risks from reduced competition in the domestic market.

Any additional domestic student demand at a merged institution could have a negative effect on any non-participating institution, particularly where the result is simply a redistribution of student load to the newly merged institution with no measurable increase in total domestic student demand.

There is a risk that disruption following a merger could impact negatively on student satisfaction in the short term, and in the longer term, because with some exceptions students at smaller universities often report higher levels of overall satisfaction with their experience than those at larger universities. Accordingly, there is some risk that overall student satisfaction levels could be lower at a larger merged institution than its component parts, particularly under Option 2, which would create the largest university in Australia measured by student numbers.

The primary risk to onshore international student numbers comes from a possible adverse impact on rankings, noting that both options would be expected to improve rankings under the research-based ARWU, but the impact on the combined universities' positions on other global university ranking systems focused on teaching and the student experience are likely to be negative in the short to medium term.

Both merger options are complex in terms of campus locations and geography, and less straightforward than the proposed merger in South Australia, where both institutions are relatively close to one another. These options would present some of the same challenges as a federated structure in this regard, where the logistics of managing a larger, multi-campus institution and determining the level of specialisation or comprehensiveness at each would need careful consideration.

For regional and remote parts of the State, there could be some short-term disruptions to operations during the merger process, and some adverse impacts on regional students due to the added complexity involved in administering an expanded multi-campus university. That said, a merged institution may be better placed to resource and service regional and remote students by working more deliberately on delivery to these communities.

For staff, the literature on university mergers notes a number of related risks including opportunity costs from staff disruption and diversion of executive focus and energy (Williams, 2017; Georghiou, 2015), and integration challenges from different cultures, values and ways of operating, as the merged institution works to establish a cohesive new organisational culture (Stensaker et al., 2015; Valimaa et al., 2014; Puusa & Kekale, 2015).

For research, there is the potential for short-term disruption in reaction to uncertainty and change. If the disruptions are severe and prolonged, they could lead to some research-active staff and high-performing researchers seeking employment elsewhere. That said, given the establishment histories and disciplines associated with an Option 1 merger, it is likely that the 2 research cultures would more readily align than would be the case for an Option 2 merger.

The likely fall in the QS and THE rankings schemes resulting from either merger would be exacerbated should the merger adversely impact institutional reputation, noting as above that maintaining the status quo in an increasingly competitive environment may also lead to a drop in global position. More generally, in relation to institutional reputation and standing, the literature on university mergers notes concerns over loss of existing institutional identity and traditions may lead to resistance from stakeholders, including students, alumni and staff (Stensaker, et al., 2015), and the potential for significant opposition from those who perceive a loss of status or influence (Pinheiro et al., 2017).

To the extent that a merger leads to reduced demand from domestic and international students and potential revenue loss, financial performance will be impacted negatively at least in the short-term. This impact could be exacerbated if the merger proves to be highly controversial and disruptive, and should there be any sustained, adverse impact on rankings because of reputational loss.

Finally, there are substantial short-term financial costs, both direct and indirect, in planning and implementing a merger. Given the complexity of an Option 2 merger, these costs are likely to be significantly greater for that option compared with than Option 1. Major costs associated with factors such as the integration of ICT systems should be expected, alongside costs associated with course integration and staffing matters, including any required harmonising of staff pay and conditions and guarantees of employment.

These potential short-term costs are substantial and would need to be carefully assessed. They could not be fully funded by the universities involved in any merger and would, therefore, require significant funding support from government (State and/or Commonwealth) if any merger is to proceed to a successful conclusion. Furthermore, in the longer term, additional overheads may be involved in operating a more diverse, multi-campus institution, and these too would need to be assessed as part of any further detailed work.

All the risks identified in relation to any possible merger will be the focus of carefully planned mitigation strategies. The capacity for the universities, in association with the State Government, to address these risks should do much to improve the prospects of success.

Conclusion – structural change and next steps

The Panel recommends further analysis of a merger of Western Australia's public universities that would include UWA and Murdoch. A merger of the 2 universities could be expected to achieve many potential benefits as outlined, while exposing the merged entity to fewer risks. A merger of 3 would be more ambitious and challenging, but in the Panel's view would still be achievable under the right conditions. A merger of all 4 is not a realistic objective in the Panel's view and is therefore not recommended for further consideration.

Finding 8

The scale of the benefits and risks associated with mergers involving the University of Western Australia and Murdoch University vary significantly depending on whether a merger involves 2, 3 or 4 universities.

Recommendation 1

The State Government undertakes the foreshadowed further detailed work on the policy design and implementation, cost-benefit analysis, business case, change management planning, and legislative pathway with the intention of fully assessing the case for a merger of:

1. The University of Western Australia and Murdoch University; and/or
2. The University of Western Australia, Murdoch University and Curtin University.

Recommendation 2

Any analysis of a merger of the Western Australian public universities should include the potential impact on non-participating Western Australian universities.

Should the recommendations be accepted, the Government will need to both initiate further promised analysis and play a greater leadership role in the sector.

This leadership role will continue while consideration of a merger or the merger itself is under way. Indeed, it should also extend well beyond that period. It will require a commitment of Ministerial involvement and additional financial and bureaucratic resources. This is essential.

The Review's Terms of Reference specify that this Review is only the first step towards considering possible structural change and that further detailed work will be required before final consideration. Key priorities must be completing the cost-benefit analysis and the business case. Substantial work must also be done on possible legislation pathways and policy design and implementation. The Panel foreshadows an approach to this work with 2 initial phases (refer Timeline, Section 3.5). Phase 1 items are all decision critical for further consideration of a merger, although work on some of them will need to continue well after a decision to proceed with a merger. To avoid prolonged uncertainty, Phase 1 work should be completed within 6 months of the initial assessment. This is a very tight timetable.

Timetable risk in Phase 1 can be ameliorated by immediately establishing a Steering Committee comprising officials from the departments of Premier and Cabinet; Education; Jobs, Tourism Science and Innovation; and Treasury. This will also require involvement from several Ministers. When the proposed Office of Higher Education is established, the work of the Steering Committee could be folded into that Office.

Finally, regular and fruitful consultations with the affected universities will be required. The involvement of the Strategic Working Group (discussed below) may help in this respect.

Finding 9

Merger is a viable option, noting that any successful merger of Western Australia's public universities will require significant State Government leadership, participation, funding and ongoing support as well as genuine commitment from participating universities.

Recommendation 3

Should the State Government accept Recommendation 1, this work needs to be:

1. progressed as quickly as possible to minimise uncertainty for the community and university sector
2. initiated, with Ministerial oversight, by a Steering Committee of officials comprising the departments of Premier and Cabinet; Education; Jobs, Tourism, Science and Innovation; and Treasury
3. transferred to the new Office of Higher Education once established (see Recommendation 7).

Based on its assessment of previous mergers, this Review considers that some early work on key planning and operational considerations should be initiated in the next few months as part of Phase 1, including:

1. developing a shared vision to set out the rationale for and the goals of structural reform
2. establishing a communications program advising key stakeholders on the process and progress
3. clarifying funding responsibilities and establishing transition arrangements, including provisions for current staff and students
4. assessing any necessary regulatory and legislative change.

Early progress in those areas would be helpful for State Government decision-making and would be available for Phase 2 should it decide to proceed with a merger. This work should be done in conjunction with the affected universities and overseen by a Strategic Working Group that includes the relevant Minister and the Vice-Chancellors of each participating university, with executive support and advice from other senior university staff and officials, including the Office of Higher Education. This would also be an important forum for identifying and solving problems as they arise.

Recommendation 4

The Minister responsible and the Vice-Chancellors of each participating university form a Strategic Working Group to oversee the proposed work on key planning and operational considerations and address problems as they arise.

The merger being progressed in South Australia could be considered a reasonable guide to the different elements of the process, noting it is supported by a significant funding contribution by the South Australian Government, governed by a comprehensive Transition Plan and accompanied by a formal undertaking that there will be no compulsory redundancies or retrenchment of staff related to the merger until 18 months after the new Adelaide University

opens in 2026. Early consideration of similar redundancy and retrenchment arrangements would be particularly important for a merger in Western Australia.

Recommendation 5

Should the planned analysis demonstrate there is merit in a merger:

1. the State Government should contribute significantly to the transition and establishment costs
2. the process should be supported by the Office of Higher Education and a comprehensive Transition Plan.

While the Panel remains alive to the fact that a merger would be a difficult, disruptive and expensive exercise, particularly in the near term, the international and Australian experience shows that the benefits can greatly outweigh the risks, particularly in a jurisdiction where scale is an issue and significant growth and renewal unlikely should the status quo be maintained.

The likelihood of a successful merger would also be significantly increased by the affected universities' active and full cooperation from the start. This could be encouraged by a financial incentive following their commitment to merge.

Should the State Government wish to further investigate a proposed merger, several critical enablers will need to be put in place. These are discussed in further detail in Section 4.

Recommendation 6

Should a merger be pursued, the State Government should work with the participating universities to ensure commitment to the exercise, with a time-limited financial incentive to secure their early engagement and full support.

3.3 Enhanced State Government leadership

Whether or not the State Government decides to further investigate and subsequently implement a merger of its public universities, enhancing State Government leadership in the higher education sector and bureaucratic capability in this area is essential. It will make it easier to provide critical support to the sector, help oversee necessary change and draw together existing initiatives into a more coordinated, cohesive and strategic approach to higher education. The result will be better outcomes for the State.

In Western Australia, responsibility for higher education formally sits with the Minister for Education who, with support from a very small staff within the Department of Education, has some administrative and legislated responsibilities including chairing the Western Australian Higher Education Council (WAHEC), approving certain uses of university land and seeking nominations for appointees to university governing bodies. This is a very small part of a broader school system portfolio.

The Minister for International Education, supported by the Department of Jobs, Tourism, Science and Innovation (JTSI), is responsible for international students and aspects of their support, and the promotion of Western Australia as a study destination.

The Minister for Training, with support from the Department of Training and Workforce Development (DTWD), is responsible for managing and coordinating VET, identifying the State's current and emerging skills needs and developing workforce strategies to address them.

Activities and programs involving the public universities, particularly science and research programs and articulation initiatives also sit with JTSI, DTWD and the Department of Health.

A consistent and relatively uncontested theme throughout the Panel's consultations was that the State Government takes a "light touch" with higher education. This is not a recent development, with the *Future Directions for the Role of the State in Higher Education* report in 2013 observing that the relationship between the Western Australian Government and its universities is "characterised by a high degree of benign indifference" on both sides (Seares, 2013). Whether that has been a conscious decision or the result of a focus on other priorities, there remains broad agreement across sectors and the universities that there is scope for more State Government leadership, involvement and support, and that ad-hoc and transactional interactions between the universities and various parts of government could be better and more strategically coordinated. The public universities claim a lack of State funding in particular has been unhelpful, but they could also do more to initiate partnerships and regularly engage beyond the operational level. There is scope for both sides to work better together.

Finding 10

Higher education has not been an area of major focus for successive Western Australian Governments, and interaction between the universities and the State Government occurs across several portfolios and has tended to be transactional, fragmented and focused on the short-term.

Other states and territories have taken a more focused and active role, albeit approaching the issue in various ways, including creating a higher education portfolio separate from schools and early learning. New South Wales, for example, has a separate Minister for Skills, TAFE and Tertiary Education who is responsible for both VET and higher education policy, projects and reform. In Victoria, a dedicated Minister for Higher Education, separate to the Minister for Education and the Minister for Training and Skills, takes responsibility for higher education policy and university governance, assets and infrastructure. Queensland has a model more similar to Western Australia, with VET sitting under the Minister for Training and Skills Development and higher education being the responsibility of the Minister for Education, but with the latter taking a broader role in higher education policy, governance and strategy.

This Review's focus is on higher education, and the need for change in this sector. Accordingly, the Western Australian Government should establish a Minister for Higher Education. This should help to signal a closer focus on the State's universities, create a more natural home for an holistic higher education strategy and form a single point of accountability and coordination.

Higher Education should become a discrete Ministerial portfolio, either adding it to the Minister for Education's responsibilities or appointing another Cabinet member to this portfolio. Ideally, responsibility would sit with a senior Minister positioned to drive change within higher education over the next 3 to 4 years. This will be particularly important if the State Government were to proceed with a merger.

Finding 11

Additional focused State Government leadership, engagement, support and advisory capacity will help deliver a more strategic and collaborative approach to higher education in Western Australia.

Recommendation 7

The State Government establishes a Minister for Higher Education, supported by a new Office of Higher Education, to:

1. signal Western Australia's renewed focus on a strong and collaborative university sector, embedded within a more cohesive tertiary sector
2. advise, coordinate and oversee structural reform, enhanced collaboration on State priorities, State Government funding for high priority research, delivery of specialised teaching and learning programs, improved student transition and articulation arrangements
3. work closely with the Ministers responsible for Training; Innovation and the Digital Economy; State and Industry Development; Jobs and Trade; and other relevant portfolios.

In doing so, the State Government should also consider the treatment of the International Education portfolio, noting that the tertiary education sector dominates international education. Other jurisdictions tend to integrate international education into the education portfolios as part of education or tertiary education. International education will be a critically important success factor for Western Australia's public universities in the coming years, and it would be appropriate to allocate Ministerial responsibility for it to the Education portfolio, possibly the Minister for Higher Education. Work would then be undertaken with the Ministers for Education, Training and Tourism to develop a more cohesive international education strategy.

Recommendation 8

Ministerial responsibility for international education and closely related programs is reallocated to the Education portfolio.

To support this shift in focus, the State Government will need to build higher education expertise and capacity within the Western Australian public service. As noted above, the Department of Education currently has limited resources dedicated to an executive support function which, while sufficient to support limited business as usual, would not be able to meet the needs of a more demanding portfolio or major project of reform.

Other jurisdictions have teams of various sizes, depending on their functions, and these are typically placed within the local equivalent of the Department of Education. Establishing a dedicated Office of Higher Education would help to ensure the Minister for Higher Education is supported to consider structural change, identify and fund high priority research, build Western Australia's performance in competitive grant schemes and research commercialisation, help build better pathways, credentials and regional offerings for students, foster collaboration with the VET sector and advance international education in the State. Its staff should collectively have expertise in project management, stakeholder engagement and policy development, and ideally some experience in the higher education sector. The Office should be established as a priority. While it could be established as an independent entity within the Education portfolio, it would preferably be part of the Department of Education. If some or all of the recommendations of the Review are to be implemented, these endeavours will need to be appropriately resourced. Inadequate resourcing will significantly challenge the likelihood of successful reform.

Recommendation 9

The State Government should create an appropriately resourced Office of Higher Education within the Department of Education, to advise and support the Minister responsible for higher education.

One of the priorities should be to consider the current approach to WAHEC, through which the Minister for Education meets with the university Vice-Chancellors to discuss developments and areas of strategic concern. Feedback from stakeholders indicates that WAHEC provides a forum for useful discussions but tends not to lead to significant outcomes. A renewed focus on higher education and cross-government coordination should help enliven WAHEC's agenda and make it a forum for more strategic discussions about the sector's future. An enhanced WAHEC agenda would be supported by the Office of Higher Education.

The State Government should also consider inviting a broader group of attendees to participate occasionally in WAHEC and represent the rest of the tertiary education sector, including other relevant Ministers, TAFE Managing Directors, private VET providers and industry representatives. This could be considered a "Western Australian Tertiary Education Council" that discusses cross-sectoral issues and promotes better collaboration and coordination across higher education and VET.

Recommendation 10

The Minister responsible for higher education take immediate steps to reinvigorate WAHEC as the official forum for discussion of ongoing and emerging higher education issues.

Independent of any merger, to help develop a public university sector that is better able to compete for research funding nationally and internationally, and deliver the research outcomes that the State considers a priority, the State Government should consider scaling up its support for research, commercialisation, shared research infrastructure and collaboration. A compelling example exists in the Queensland Smart State Strategy 2005–2015. At the time, this initiative was presented as a choice to either 'innovate or stagnate', with key initiatives including a \$128 million Innovation Building Fund, an additional \$20 million funding round of the Smart State Research Facilities Fund, \$12 million Innovation Skills Fund and \$60 million Innovation Projects Fund. It was overseen by a Smart State Council to provide advice on emerging trends in innovation and skills (Department of Employment and Training, 2005). In the 10 years from its implementation, about \$3.5 billion was invested in Queensland research, development and innovation. The impact of that was 39 new research institutes and about 60,000 new jobs, of which 10,000 were scientists (Andrews, 2009). It created an enduring culture and lasting outcomes for research and employment. A similar program in Western Australia could target funding where the State Government considers necessary, with comparable impact on jobs and the economy.

Part of the work of the Office of Higher Education should be developing, establishing and administering a State Research, Innovation and Commercialisation Program, possibly modelled on the Smart State approach. The purpose would be to build on existing areas of strength and drive attention towards the State's areas of strategic priority while encouraging universities to undertake research, individually and collaboratively, that can significantly contribute to Western Australia's economic growth and development. This in turn would help to attract high quality staff. The focus could include grants and scholarships to target the State's emerging R&D priorities, and incentivise high-value projects and collaborations relevant to its future labour market needs. An advisory board, including industry representatives, should provide advice on priority areas of focus and allocation of funds. The Office of Higher Education should be the lead organisation for monitoring and assessing outcomes, with input from JTSI and the Department of Treasury.

This will help ensure greater focus on the State's research priorities, including those required for the successful implementation of Western Australia's strategic priorities, including *Diversify WA* and its particular skills requirements.

To have the desired impact, the budget would need to be substantial. Acknowledging the differing size of the 2 states' budgets and the fact that the Smart State Program began nearly 2 decades ago, a Western Australian program in the order of \$100 million per annum would have a significant impact on university research, innovation and commercialisation priorities. This funding should continue for several years, or longer, to secure the desired impact. The quantum should be reviewed after 3 to 4 years (depending on the overall timeframe) to assess whether an increase in the amount available is warranted. Some of the early years' funding could be specifically directed to the merging universities to help them reshape and enhance their research, innovation and commercialisation capacity.

Recommendation 11

The State Government should establish the Western Australian State Research, Innovation and Commercialisation Program, overseen by the Minister responsible for higher education and managed by the Office of Higher Education and with funding advice input from an advisory board, to help fund the State's emerging research and industry development priorities.

Finally, there are existing programs that involve funding the higher education sector, particularly research programs, that are managed by other agencies such as the Department of Health and JTSI. The priorities of the State Research, Innovation and Commercialisation Program would need to be managed in consultation with those funding programs. Some may be better located in the Office, and their location might be further assessed over time.

3.4 Other interventions

In addition to structural change and building State Government leadership, some additional smaller-scale interventions could and should be implemented, regardless of the State's position on this Review's other findings and recommendations.

3.4.1 Placements

During the consultation, the Panel heard about the challenges of sourcing work placement opportunities for students, particularly in areas of workforce need and where multiple institutions provide courses in the same field. This is not solely a Western Australian phenomenon and is evident in the eastern states and overseas. As part of workplace experience, placement is a requirement of accreditation in a range of disciplines including education, engineering, health sciences and law.

In areas of workforce need, such as health and education, universities are constrained in their ability to increase their intake without an assurance that their students can access the minimum placement hours required for professional accreditation. Conversely, the current workforce has constraints of its own, with a stretched workforce more reluctant to accept the additional effort and time impost of student supervision. This conundrum must be solved as a mechanism to increase the supply of much needed professionals, acknowledging that doing so may create an even bigger impost on the current workforce to supervise them in the short- to medium-term.

Although the Department of Health coordinates a central placement mechanism for nursing student placements into its public health services, where universities can input their requirements, this level of coordination is not the norm. For the most part, university staff rely on personal relationships with individual government or industry providers to secure places for their students. This is time-consuming and inefficient for all parties involved. All participants report frustration with the current approach to placements. As noted, these challenges are not unique to Western Australia, indeed they have been addressed in the Australian Universities Accord, where consideration was given to "establishing a national jobs broker system, to assist students in finding work placements and part-time jobs in their fields of study" (Australian Government Department of Education, 2023b).

With government agencies a dominant employer in both health and education, they are also the major providers of work placements in areas of workforce need. There is an urgent requirement to better coordinate student work placements at a State level, reduce the administrative burden on university staff, grow a workforce pipeline in areas of need and improve student experience. This will take a joint commitment by the State Government and universities, noting that the universities, during consultation with the Panel, indicated a willingness to have government play a formal coordination role to ensure placements were both available and allocated across universities and programs, according to need.

Finding 12

There is little coordination in the supply and management of student work placements required for professional accreditation, disadvantaging students and creating an administrative burden on the requesting university and prospective host workplaces.

Recommendation 12

The State Government creates a central mechanism to coordinate student work placements required for professional accreditation in government agencies to reduce duplication, remove administrative burden from universities and better support areas of workforce need.

The Panel also heard how student placement requirements can be a deterrent to enrolling and/or place an additional burden on equity students, particularly those located in regional and remote areas. These students are more likely to study part-time and balance their studies with work and caring commitments. These competing interests can be a significant barrier to course completion, particularly where the student needs to travel and source accommodation to access the placement opportunity. The Panel is aware that this issue has also been noted in the Australian Universities Accord Interim Report. Their review is giving consideration to improving Work Integrated Learning (WIL) and placements by providing participating students with better incentives and financial support.

3.4.2 Regional higher education provision

Regional and remote Western Australia, by its staggering scale and opportunities, presents more complex challenges than any other Australian state. Unsurprisingly, the equitable provision of higher education across this vast landscape has challenged successive governments and was raised as an issue needing attention in the 2013 report *Future Directions for the Role of the State in Higher Education* (Seares, 2013). While regional Western Australia is home to only 22% of the State's population, it is also where most of the State's agriculture and mining sector is located, and export income generated. Although regional Western Australia boasts 32 TAFE campuses, 10 RUCs and 3 public university campuses, consultation during this Review established that inequities of access to higher education persist.

Western Australia has a highly urbanised population with approximately 78% based in the capital city (Australian Bureau of Statistics, 2022). In 2021, UWA and Murdoch enrolled low proportions of their domestic students from regional and remote areas (5.6% and 8.1% respectively), but ECU and Curtin had higher proportions of regional and remote student enrolments of 14.2% and 12.1%.

It is striking that most university courses available in the regions are provided through the RUCs by interstate universities and that regional stakeholders expressed concern that the Western Australian public universities' engagement often aimed to encourage regional and remote students to relocate to Perth for their studies. RUCs aim to counter this trend by providing services and facilities to support and stimulate local education and career path connections.

They are characterised by their community leadership and a community-tailored approach to meeting local tertiary education needs.

The Australian Universities Accord Interim Report identified inequity of access to higher education opportunities in regional and remote areas as an issue of national concern, and deserving of urgent attention, noting that “RUCs are effective at improving student participation, retention and completion rates in regional and remote areas and should be expanded” (Australian Government Department of Education, 2023b). Western Australia’s 10 existing RUCs significantly contribute to addressing the inequity in regional and remote higher education provision. The older, community-led centres provide a greater level of service than those more recently established. However, the Panel endorses the Federal Government’s response and commitment to double the number of university study hubs through establishing 20 more in the regions and 14 in the outer suburbs of the major cities where the percentage of people with a university qualification is low. This can only help regional and remote communities in Western Australia.

The inequity of access to higher education opportunities in Western Australia is further exacerbated by a disconnected tertiary education ecosystem that has largely failed to collaborate effectively or systematically to meet the needs of regional students or community needs. Given that the regional and remote population in the State is significantly underrepresented in its universities, and a higher proportion of regional and remote students meet multiple equity criteria, this issue deserves prompt resolution. Overall, the situation in Western Australia lacks breadth, coordination and strategic direction.

Tertiary education in regional Western Australia is primarily provided by TAFE colleges, with local higher education delivery supported through RUCs. The State’s Department of Education has 8 designated education regions, 6 of which are outside the metropolitan area. The following table illustrates the spread of tertiary campus types across each of these 6 regions.

Table 2: Tertiary campuses by region

DoE Region	TAFE campuses	Regional Universities Centres	University campuses
South West	9	2	2
Wheatbelt	5	4	0
Mid West	5	1	0
Goldfields	2	0	1
Pilbara	5	2	0
Kimberley	6	1	1 (Private)
TOTAL	32	10	4

The Australian Universities Accord Interim Report noted that Australia’s skills needs will only be met if the higher education system and an expanded VET system, with TAFE at its core, work together within a more integrated system to deliver the flexible, transferable skills people want and need. Industry stakeholders consulted during this Review reinforced this message, highlighting current challenges in meeting the growing need for a skilled workforce in science, technology, engineering and mathematics (STEM)-based industries located in regional and remote areas.

In submissions to both the Accord and this Review, it has been noted that the VET sector was keen to see greater collaboration with Western Australia’s public universities, and that incentives for them to partner with TAFEs on dual-credentials should be encouraged (Australian Government Department of Education, 2023b). Students in particular wish to have access to tertiary education in the regions rather than having to incur significant cost to relocate to Perth.

This Review observed that there is currently some co-location and cooperation between universities, TAFE colleges and RUCs in the regions, but this is largely undertaken on an ad-hoc basis. Examples include:

1. South Regional TAFE operates in a precinct shared with ECU, Manea Senior College, the Rural Clinical School, South West Aboriginal Medical Service, Bunbury Regional Hospital and St John of God Hospital.
2. Curtin University Kalgoorlie campus and Central Regional TAFE Kalgoorlie operate Agricola Student Accommodation in partnership.
3. Curtin University has an agreement with:
 - RUCs, for all Curtin online students (including those studying through Open Universities) to access their support and facilities.
 - Central Regional TAFE to provide pathways into a selection of their courses.
 - Great Southern Universities Centre, for nursing students to complete their theory units online and undertake clinical practice within the region's local public and private health services.
 - Pilbara Kimberley Universities Centre to provide the UniReady enabling course
 - Geraldton Universities Centre (GUC) to provide the Indigenous Tertiary Enabling Course.
4. Articulation pathways exist between Central Regional TAFE and GUC's partner universities, for example in Nursing, Early Childhood Education and Care, and Social Work.
5. GUC utilises Central Regional TAFE's nursing training facilities, on a fee-for-service basis, to deliver clinical aspects of the Registered Nursing degree to meet Australian Nursing and Midwifery Accreditation Council (ANMAC) requirements.
6. UWA, Curtin and the University of Notre Dame Australia are collaborative partners with the Rural Clinical School Western Australia, which provides post-graduate training opportunities within the regions to metropolitan students.
7. UWA Dental School operates a clinic from the Bunbury ECU campus.

Feedback from stakeholders indicates that competition for students between universities and TAFEs is often counterproductive and not in students' best interests. Although pockets of collaborative action allow articulation between sectors, arrangements vary by university and navigating the options can be complex for prospective students. The successful arrangements are often based on individual relationships and lose momentum when the critical individuals leave. This fragility only highlights the need for a systemic strategy and support.

There would be resourcing implications for the establishment of regional operations. However, it is noteworthy that universities from other jurisdictions, like Central Queensland University (CQU) and the University of Southern Queensland (USQ), offer education and training in regional Western Australia and have become the dominant higher education providers there through the RUCs. This is despite the fact that the 4 public universities in Western Australia are required by their respective Acts of State Parliament to operate for the "benefit and wellbeing" of all Western Australian communities, not just Greater Perth.⁴ This lack of presence enabling effective collaboration with other tertiary institutions amounts to lost opportunities for the universities to connect with regional Western Australia. Although the 4 universities offer online options in most disciplines, the reality is that many courses require laboratory work and/or work placements for accreditation, which places an additional cost burden on the regional student who is more likely to have to travel and source accommodation to fulfil these requirements.

⁴ *University of Western Australia Act 1911, Curtin University Act 1966, Murdoch University Act 1973, Edith Cowan University Act 1984.*

Finding 13

Regional and remote communities in the State are underserved by the 4 Western Australian public universities.

Finding 14

Western Australia's Regional Universities Centres make a worthwhile contribution, with the potential to contribute further to a more integrated tertiary education sector.

Recommendation 13

The State Government supports the establishment of new Regional Study Hubs as part of a more integrated tertiary education sector, and advocates for Western Australia to receive a share of Australian Government funding for new Hubs that reflects Western Australia's geographic and demographic circumstances.

Given the reported cost of living pressures, accommodation and skills shortages experienced in the regions, it is no surprise that the Panel heard that regional and remote stakeholders want local training opportunities for their communities, which need teachers, nurses, allied health professionals, engineers and accountants. Students trained in the regions are more likely to complete their qualifications and stay where they have the support of their local community.

The Panel notes that a working group consisting of representatives from the Geraldton and Pilbara University Centres, Regional Development Commissions (Great Southern, Goldfields-Esperance and Pilbara) and Curtin was established earlier in 2023 to determine what it would take to develop locally relevant courses available in fully accessible models for regional study.⁵

The Panel heard how resourceful regional communities take action to meet local needs. Geraldton best represents this in the State's Mid West, only a 5 hour drive from Perth and with a population of over 32,000 in its urban centres and localities. In 2006, GUC opened to students to provide local higher education options that meet local needs, and it continues to do so. GUC now supports approximately 300 students annually, many meeting multiple equity criteria, with around 8% Aboriginal and Torres Strait Islander people. It is notable that 29% of currently enrolled students have returned to Geraldton from trying university in Perth or taking online studies on their own.

It is possible for any student enrolled in an online tertiary course to use the facilities at GUC. It is notable that CQU and the USQ have also used these facilities to offer mixed-mode bachelor courses in a range of disciplines relevant to the local area, for example, in education, accounting, social work and nursing.

At their most recent graduation event, 47 students graduated from courses including 19 in nursing and 12 in education, joining an alumnus of 517 students to supply a professional workforce for Geraldton's schools, hospitals, agencies and businesses (Geraldton Universities Centre, 2023). Of the 47, only 2 were from a Western Australian public university. While acknowledging the logistical and financial issues, it concerns the Panel that Western Australian public universities have not developed the flexible modes of course delivery needed in the regions, yet interstate universities have done so.

⁵ Curtin University (2023) Response to the Western Australian University Sector Review Discussion Paper, p.29.

Finding 15

It is important that Western Australia's 4 public universities provide genuine collaborative leadership required to meet the broader education and labour market needs of the State, and deploy flexible modes of course delivery as required for a rich student experience in regional and remote areas.

3.4.3 A cohesive tertiary education sector

There has been growing recognition in Australia that the demarcation between higher and vocational education has become too rigid. It unnecessarily limits opportunities for students and privileges academic pathways over skills acquisition. It hinders potential employees from acquiring the mix of education and work-related skills that most jobs and careers will require in the future.

The demands of the labour market will best be met by cross-sectoral partnerships that enable and encourage students to combine the acquisition of practical and theoretical education in seamless ways. Whether they intend to work in the mining or agricultural sectors, emerging high-tech, research-intensive industries or the fast-growing care sector, they will need the ability to solve complex problems, think strategically, communicate clearly, work collaboratively, show creativity and act ethically.

The historic silos that separate universities from TAFEs are no longer fit for purpose. A high-functioning university system needs to be embedded in a coherent tertiary sector of dynamic, responsive, collaborative institutions. As the Interim Report of the Australian Universities Accord argues, "only the collective action of the higher education and VET sectors can ensure we meet our nation's biggest challenges" (Australian Government Department of Education, 2023b). It is increasingly recognised, including by Universities Australia, that barriers need to be broken down to create a more cohesive and coordinated tertiary sector (Bean & Dawkins, 2021; Skills and Workforce Ministerial Council, 2023; O'Connor, 2023; Productivity Commission, 2023; Universities Australia Member Update, 2023).

There is growing recognition of the need for universities to strengthen relationships with business, industry and VET providers to provide students with access to practical work experience and real-world technologies. But good rhetorical intentions are not enough. Tertiary connectedness requires proactive government intervention, at both the Commonwealth and State levels.

The calls for national action on skills development resonate in Western Australia. *Accelerating Diversify WA*, the State Government's blueprint to accelerate industrial diversity opportunities in areas such as renewable hydrogen, advanced minerals processing, carbon capture, naval shipbuilding and medical technology, provides a framework to guide intervention. It notes that success will require government, industry and the community collaboration. It will also require a connected tertiary sector to provide the skilled workers needed across a wide range of technical, professional and managerial roles.

Finding 16

The lack of a coherent and cohesive tertiary education sector in the State limits students' ability to develop the combination of theoretical and practical skills necessary to meet Western Australia's future labour market needs.

Western Australia has an opportunity to lead the nation in "bringing together the tertiary education system as a coherent whole, rather than thinking of higher education and VET as two separate siloed institutions" (Australian Government Department of Education, 2023b). This would need determined government leadership.

At present, the State tends to be a laggard rather than a leader in driving strategic partnerships between its universities, TAFEs and RUCs. There is little evidence of systemic collaboration and cooperation across the higher education and VET sectors. While there are teaching, research and commercialisation partnerships across educational institutions, too often they are ad-hoc and reliant on individual initiative.

As elsewhere in the country, all Western Australian universities have developed tertiary pathways. VET qualifications can be used to meet the minimum entry requirements of a range of their undergraduate courses. TAFE Diploma students can apply for credit or advanced standing. Other TAFE students can package an eligible TAFE course with a relevant university degree.

Murdoch University and South Metropolitan TAFE have developed strategic partnerships to bring together education offerings. Curtin and Central Regional TAFE have agreements in place to meet the needs of students in the Kalgoorlie-Goldfields region. Edith Cowan College offers a range of Diplomas in Communications and Creative Industries, Hotel Management Computing/ICT, Engineering and Health Sciences that ensure eligibility for admission to degree courses at the University. TAFE International Western Australia (TIWA) has established formal articulation pathways with Curtin, ECU and Murdoch. These are standard university entry arrangements. They are useful and necessary, but they are not sufficient.

Unlike Victoria, NSW and the ACT, no Western Australian TAFE delivers practically oriented degree courses. Unlike Victoria, Queensland and the Northern Territory, Western Australia has no dual-sector universities with substantial student load in both VET and higher education. Cross-sectoral innovations in other states, such as New South Wales's emerging Institutes of Advanced Education, have no counterparts in Western Australia. Indeed, as highlighted earlier, collaboration in tertiary education in regional areas of the State has been led not by a Western Australian public university but by CQU (a dual-sector institution) and USQ.

Competition for students and research funding is the prevailing ethos among Western Australia's public universities. This has been exemplified by all 4 publicly funded universities making early offers in a bid to secure undergraduates. UWA decided to take enrolments for 2022 based on Year 11 results. The other universities quickly joined the rush, accepting students without needing an ATAR. While promoted as a means of lowering student stress, many teachers and parents have raised strong concerns about offers that attach minimal conditions, arguing that they reduce the motivation of students to continue their secondary school curriculum. Such early offers promote academic pathways, effectively undermining the value of VET. The Panel was pleased to learn that all 5 Western Australian universities have agreed to wait until mid-July of the final year of senior secondary school to make early offers to students.

There are some good examples of collaboration in establishing pathways between the sectors and across institutions and a few instances of co-designed integrated courses delivered jointly in response to labour market requirements.

WAAPA is an instance of a non-linear pathway offering a comprehensive range of on-stage and behind-the-scenes training. In addition to undergraduate and postgraduate degrees, students can access VET courses at Certificate, Diploma and Advanced Diploma levels. For over 40 years, WAAPA has been a beacon of integrated education and intensive practice-based learning.

A second example of an innovative approach to tertiary education is the partnership between North Metropolitan TAFE and ECU in cyber security pathways. This allows students to complete a Certificate IV in Cyber Security and an Advanced Diploma of Cyber Security at TAFE and, as

a consequence, receive 18 months of recognition of prior learning with ECU, which they can put toward a Bachelor of Science. Importantly, this allows the progressive stacking of credentials and students can complete 3 qualifications in 3½ rather than 5 years.

Perhaps the best instance of promoting industry-focused, cross-sectoral education and training has come about as the result of leadership by the Western Australian Government. The Defence Industry Internship and Graduate Scholarship Program, funded and administered by DTWD, aims to ensure a pipeline of skilled professional and para-professional workers to meet industry needs. The program facilitates placements between employers, universities and VET providers and provides support services to all parties. Elements of the program include an 8 to 12-week 'taster' work-integrated learning scholarship placement, a 12-to-26-week scholarship program, and a one-year graduate program. It is open to anyone who has studied at one of the 4 Western Australian public universities or TAFE colleges, or a specialised private training provider.

This is a bold initiative that can be built upon. The Western Australian Government can take the lead through incentivising much higher levels of cross-sectoral collaboration, particularly in areas of emerging market demand. The goal should be to have the State's universities, TAFEs and other registered training organisations develop a range of 'degree apprenticeship' pathways that:

1. are co-designed and jointly supported by educational institutions and industry, with the skills needed by employers front of mind
2. offer a combination of practical skills development and theoretical education with fully integrated course content
3. allow students to stack their Australian Qualifications Framework (AQF) credentials with a clear progression from certificated training to a practically oriented degree
4. offer opportunities for extensive work-integrated learning, especially for part-time students already in paid employment
5. provide access to a range of industry-based micro-credentials that can be incorporated into the qualifications offered.

The overriding goal of such programs should be to offer fast, stackable and portable skills pathways. Delivery should be flexibly built around student aspirations with multiple entry and exit points and the possibility of studying across multiple institutions. Qualifications should be modular, stackable and transferable between institutions. There can be little doubt that such career-focused industry-based tertiary education would be attractive to many international students, especially those who would like to apply for permanent residency after completing their education.

In order to activate these outcomes, a Tertiary Education Skills Advisory Council (TESAC) should be established to promote an aligned tertiary education sector that considers Western Australia's skills needs as a coherent whole. The work of TESAC would be assisted by the establishment of a Tertiary Sector Innovation Fund featuring financial incentives that are clearly aligned with the Western Australian Government's plan for economic growth and diversification. The secretariat of the Council should be provided by DTWD. The Council should comprise equal numbers of industry, universities and TAFE representatives and be independently chaired by an industry leader. It would make its recommendations jointly to the Ministers for Training, for Higher Education and for State and Industry Development.

TESAC's key concerns could be to support the development of tertiary education strategy to facilitate greater collaboration between Western Australia's higher education and VET providers, facilitate development of innovative flexible modes of course delivery that will promote education and skills development in regional and remote Western Australia; strengthen relationships between universities, business, industry VET providers and schools; stimulate

greater co-design of industry-focused micro-credentials; and incentivise cross sectoral programs and course articulation pathways.

Recommendation 14

A Tertiary Education and Skills Advisory Council be established to support the development of a tertiary education strategy to facilitate greater collaboration between Western Australia's higher education and VET providers, industry and schools.

3.5 Timeline

The Panel believes implementing the recommendations in this Report will require prompt action and that there is no need to wait for the recommendations of the Australian Universities Accord Final Report in December 2023.

The Panel suggests 2 distinct phases following Cabinet consideration and announcement.

Phase 1 contains 2 elements. The first element recognises that this would be a feasibility period should a merger be considered (Recommendations 1 to 5). This requires the preparation of the business case, cost-benefit analysis, and legislative pathway to establish the merged university. It also includes early work on the implementation plan and transition plan. This should be completed by the second quarter of 2024.

The second element should be undertaken concurrently and would see the non-structural reforms implemented (Recommendations 6 to 12).

Phase 2 involves the introduction of enabling legislation. Should the State Government decide to proceed with a merger, the Panel suggests that this phase should occur in the second half of 2024. Phase 2 will also need to build significantly on the planning and implementation work commenced in Phase 1.

The commencement date of the new university should be timed to allow successful completion of Commonwealth registration, the implementation of key components of the transition plan and the clear engagement with domestic and international markets.

Once enabling legislation is passed to create the new entity, recruitment of the Vice-Chancellor and senior management should commence immediately.

4. Conditions for successful implementation

The Panel acknowledges that this Review is an initial and important step in any change process aimed at a lasting reinvigoration of the Western Australian public university sector.

Recommendations for structural change identified in this Review represent a range of interventions, from collaboration and coordination through to merger. While each option presents different implementation challenges, outlined with examples in Appendix H, the most significant structural change option recommended in this Review is a merger.

For this reason, the literature examining numerous university mergers from different jurisdictions was drawn upon with a view to exploring the considerations attending those mergers, actions taken as well as lessons learnt and how risks may be mitigated.

Ursin and Aittola (2021), reflecting on the much-quoted work of Cai et al (2016), note that any prospective merger and its probability of success will be affected by a number of factors, including the environment in which it is proposed and executed, institutional compatibility,

economic benefits and human agency. Indeed, much of the higher education literature on mergers recites lists of considerations for any merger.

These considerations include being clear about the goal of any merger, whether the merger is led by strategic or financial considerations (Agasisti, Egorov, & Maximova, 2021), whether the merger is voluntary or involuntary (Harman & Harman, 2003), with the former more likely to see a successful outcome, and whether the merger is seen to be a consolidation or a takeover (Harman and Harman 2003, Cai et al 2016).

The literature also recites several factors that are correlated with successful mergers, including 4 key factors outlined below.

Firstly, the facts behind the case for merger must be authoritative, clear and compelling. This requires a significant amount of detailed work, examining costs and benefits, advantages and disadvantages of any such change, including a clear articulation of the strategic rationale for merger. This condition can be met with the work undertaken through the feasibility period (Phase 1).

Secondly, the extent to which institutions are compatible is understood to be an important variable. This condition will be addressed through the feasibility period and through the transition plan. Merger-compatible institutions are more likely to feature similar goals, missions and values. In other words, the chance of a successful merger is enhanced where the participating institutions' cultures, values, and work practices are similar or can be aligned. Identifying the differences and similarities in the cultures of merging universities and developing a plan to address any potential cultural conflicts that may arise, is important.

Merger-compatibility also goes to the extent to which the academic programs and research of merging universities are complementary. An analysis of institutions' academic programs and research strengths is important in any merger, as is the development of a detailed plan to integrate and enhance them. This condition can be addressed as part of the implementation plan beginning in Phase 1.

Thirdly, studies point to the importance of securing a clear understanding of the financial position of participating institutions, including a detailed understanding of their assets, liabilities and revenue streams, as well as potential financial risks and opportunities, with a plan developed to address them. This set of considerations includes infrastructure and facilities, including those relating to ICT systems, and any requirements to upgrade, renovate or replace them. This condition can also be met as a result of work undertaken during the feasibility period (Phase 1).

Finally, a strong and experienced leadership team is essential. Indeed, much of the merger literature focuses on the importance of leadership and management, with various studies demonstrating that reform will only succeed if it is built on strong leadership and trust between those charged with implementing significant change. The Strategic Working Group will be important in this respect, as will the suggested early appointment of a new Vice-Chancellor and senior management.

Clear communication both internally within the participating universities and external to them is another imperative, together with ensuring that tasks associated with the merger are undertaken in an open and transparent manner to the greatest degree possible. Employment guarantees and support to level up salaries will be essential, noting that despite some concerns about job losses, the business case for the South Australian merger expects the new university to grow its academic and professional workforce to support its educational and research success (University of South Australia and The University of Adelaide, 2023). This work should form part of the implementation plan beginning in Phase 1.

At a practical level and in keeping with the factors above, Harman and Harman (2003) identify 6 key factors required for a successful merger:

- appreciation of cultural differences between merging parties
- achieving compromises and “wins” for all parties
- transparency in information and process
- ensuring broadly-based staff, student and community support across all parties
- moving quickly and to agreed time scales
- funding and incentivising the change.

It was notable during the consultation that stakeholders described insufficient trust and cooperation between the State’s university leaders. Some stakeholders speculated that this lack of trust may have been born of the need to compete for limited resources. It is imperative that those leading any change on behalf of participating universities find a way to work together, including through the Strategic Working Group, for the benefit of both the institutions and the communities that rely on them.

In short, a successful merger will require systematic, committed, effective and creative sectoral leadership and management, accompanied by strong Government and stakeholder support. In particular, for a merger to succeed, it will be critical for university leaders, the State Government, industry and the MRIs (Appendix I) to cultivate a stronger sense of trust and a more collaborative approach to higher education and research. All of these pre-conditions are achievable.

The role of the State Government

Should the State Government decide to pursue the more ambitious recommendations in this Review, the detailed business case and implementation planning outlined in the Terms of Reference will be crucial. This work ought to go some way to securing buy-in from stakeholders, while confirming feasibility and ensuring the parameters, expected risks and benefits of the exercise are acceptable and well understood.

In addition to the considerations above, any successful merger will require enhanced State Government engagement, funding and support (refer Section 3.3). A well-funded and extensive implementation process will be essential to realising the intended benefits of any merger. That means that the State Government must be prepared to lead a negotiation that, working together with the participating universities, generates a shared vision for the new entity and for the sector.

Alongside enhanced trust and cooperation between universities, greater levels of trust must be developed and nurtured between Government and participating university leaders. A larger vision for the sector overall will set the scene for stronger sectoral performance, as will early Government support for any change. In South Australia, that early support has taken the form of a commitment to provide \$300 million to facilitate the merger of the University of Adelaide and the University of South Australia.

Should the State Government decide to proceed, a legislative pathway would need to be established. As is the case in South Australia, this pathway is likely to be complex. In the event that a merger decision is supported by a credible business case, and in the interests of moving ahead, the State Government may wish to follow the Manchester example, where the new university was created as a separate entity in parallel with the participating universities. This approach to implementation saw leadership appointed to the new entity and enabled multiple work streams to operate without disrupting delivery by the participating universities, resulting in a smoother transition.

In summary, pursuit of a successful merger between universities is a complex undertaking and will demand a great deal of all parties. That said, the Panel finds that merger is a viable option for Western Australia. Indeed, many of Australia's successful universities were founded on mergers of existing higher education providers or have been strengthened over time by incorporating previously independent educational institutions. With the prospective merger in play in South Australia, university mergers continue to be a feature of the higher education landscape across Australia and worldwide. A brief review of the international experience of mergers across a range of jurisdictions is shown at Appendix J. There, and across the wider literature, pathways to successful implementation of mergers in other jurisdictions have been described and analysed. In summary, the conditions for merger success have been described and analysed with the associated literature offering, key insights and sound advice to both governments and universities. The Panel encourages putting such global experience to work should the State Government decide to proceed with a merger.

5. Conclusion

The Review has recommended an ambitious program of structural and non-structural reform. The Panel believes this program is achievable, provided the right conditions for success are in place. Creating these conditions will be extremely important in the coming months.

Appendices

Appendix A – History of higher education sector reports in Western Australia

1. Jackson, L. (1967). Tertiary Education in Western Australia: Report of the Committee Appointed by the Premier of Western Australia Under the Chairmanship of Sir Lawrence Jackson, Perth. Western Australian Tertiary Education Commission. Perth: University of Western Australia Press.
2. Partridge, P. H. (1976). Post Secondary Education in Western Australia. Perth: Western Australian Government.
3. Lawrence C., & Smart, D. (1989). Higher education policy in Western Australia: A consultancy report to the Higher Education Review Committee. Perth: Smart Consulting.
4. Seares, M. (2013). Future directions for the role of the State in Higher Education. Department of Education Services, Western Australia. Perth: Department of Education Services, Western Australia.

REPORT		RECOMMENDATIONS (abbreviated)
SEARES, 2013	1.	That the Government prepare a strategic plan for higher education in the State in consultation with Western Australian universities.
	2.	That the Schools Curriculum and Standards Authority (SCSA) urgently review levels of achievement and patterns of participation in WACE to ensure the majority of students receiving the WACE are equipped for successful participation in higher education or VET.
	3.	That the Department of Education Services (DES) and the Department of Training and Workforce Development (DTWD) review cooperation between the VET sector and the universities.
	4.	That the Department for Regional Development provide recommendations to support higher education in regional WA.
	5.	That DES and the Department of State Development initiate a roundtable to discuss higher education learning centres on mining sites.
	6.	That DES and the universities engage with the Commonwealth to increase participation in higher education by low SES students.
	7.	That DES and the Department of Indigenous Affairs convene a workshop to implement findings of the Review of Higher Education ... Outcomes for Aboriginal ... People.
	8.	That DES and other agencies provide information on workforce and demographic trends to assist universities' planning.
	9.	That DES and the Department of Commerce convene a workshop to discuss a strategic plan for State investment in research.
	10.	That State research funding be dependent on key research priority areas and projects from collaborative consortiums.

REPORT		RECOMMENDATIONS (abbreviated)
	11.	That a standing Nominations Committee be established to promote nominations for national committees which recommend Commonwealth research funding.
	12.	That the State Government consolidate its International Education Program.
	13.	That DES prepare a Bill that modernises the University Acts.
	14.	That DES and the Department of Premier and Cabinet be resourced to develop a higher education strategy and to implement this report.
	15.	That WAHEC, chaired by the Minister, be formally constituted and recognised as the universities' primary point of engagement concerning State issues
	16.	That the Commonwealth Government and the universities meet with DES concerning State priorities prior to the Commonwealth's compact meetings with universities
LAWRENCE / SMART, 1989	1.	That the Minister for Education refer the redesignation of WA College of Advanced Education (WACAE) as a university to the Joint Planning Committee (of the Commonwealth and WA) by the end of 1989.
	2.	That before agreeing to establishment of a private university, the Minister appoint a body to review educational and financial soundness and receive written assurances that no claim will be made on State resources.
	3.	That the admission of Australian students on a full-fee paying basis to private institutions be reviewed by the proposed WAHEC and recommendations made to the Minister for Education.
	4.	That the capacity of the WA Distance Education Centre's coordinating role be monitored in view of direct negotiations between the Commonwealth and individual institutions.
	5.	That WAHEC give early attention to extending the courses and eliminating duplication at the WA School of Mines and Kalgoorlie College; the Collie School of Mines, the Bunbury Institute of Advanced Education and the South West Regional College of TAFE; exploring joint use of the facilities of Muresk; having country campuses deliver courses for the needs of their regions; and examining mixed mode courses in country campuses.
	6.	That WAHEC investigate present arrangements for country contracting to prepare a plan for country contracting of metropolitan university courses to be submitted to the [Commonwealth/WA] Joint Planning Committee; and establish a basis for dividing contracting funds

REPORT		RECOMMENDATIONS (abbreviated)
	7.	That WAHEC be responsible for coordinating higher education to non-metropolitan areas
	8.	That the procedures of the Joint Planning Committee should follow operational procedures detailed in this recommendation.
	9.	That the Minister for Education establish WAHEC with institutional and independent representatives
	10.	That the Ministry of Education undertake the functions specified in section 4.5.
	11.	That within 18 months the Minister review the respective functions of WAHEC and the Ministry of Education [to prevent overlap of administrative functions].
	12.	That WAHEC maintain a register of State funded research and training activities.
	13.	That the State Government give serious consideration to establishing an independent foundation to fund research and training.
	14.	That a committee be established to make recommendations to the State Government on the foundation.
	15.	That State funding for research be addressed as a matter of urgency.
	16.	That WAHEC review regularly the research funding needs of higher education institutions and report on those needs to the Minister for Education.
	17.	That the present sizes of the governing bodies should be largely maintained.
	18.	That the internal membership of senates and councils comprise a CEO, chair of the academic board, up to 4 academic staff members and 2 members of non-academic staff, and up to 3 students .
	19.	That the external membership of senates and councils comprise the chancellor or chair, up to 9 members appointed by the Governor, the CEO of the Ministry of Education or nominee, up to 3 alumni and up to 3 co-opted members.
	20.	That the term of office not exceed three years and be limited to three successive terms.
	21.	That the terms of chancellors or chairs be limited to three 3-year terms but the Minister may allow a fourth term.
	22.	That the term of office for student members of senates or councils not exceed 2 years.

REPORT		RECOMMENDATIONS (abbreviated)
	23.	That the major responsibilities of senates and councils, as described by the Hetherington Committee, be included in the legislation of each institution.
	24.	That institutions meet with Treasury to detail uniform exemptions from the Financial Administration and Audit Act (FAAA).
	25.	That WAHEC ensure all subsidiaries of institutions come under the FAAA.
	26.	That WAHEC and Treasury review financial reporting of higher education institutions.
	27.	WAHEC examine the appropriateness of institutions publishing performance indicators in their annual reports.
	28.	That the jurisdiction of the Visitor be considered by WAHEC for advice to the Minister.
	29.	That each institution be subject to its own Act
	30.	That WAHEC review from time to time the extent to which equity of access is being achieved in higher education in WA.
	31.	That WAHEC consider the provision of higher education in the South-West corridor, including the advisability of declaring Rockingham College of TAFE a regional college.
	32.	That the Ministry of Education, the Office of TAFE and WAHEC set Aboriginal participation objectives at all levels and monitor their achievement.
	33.	That full information on alternative entry and credit transfer be available to prospective students
	34.	That all applications for admission to higher education, both by standard and external entry, be made through TISC.
	35.	That TAFE and WAHEC work together to determine a procedure for deriving a Tertiary Entrance Score from an individual's performance in TAFE courses.
	36.	That WAHEC monitor alternative entry and credit transfer in higher education institutions in WA.
	37.	That the Government address the formulation of an economic and social strategic plan to guide WAHEC in framing advice to the Minister and to guide State funds for research and training.
PARTRIDGE , 1976	4.1	We recommend that the University of Western Australia and the Western Australian Secondary Teachers College should continue joint teaching arrangements for the Diploma in Education along the lines they have followed.

REPORT		RECOMMENDATIONS (abbreviated)
	4.2	We recommend that the Teacher Education Act, 1972, should be repealed and replaced by legislation to provide for the establishment of a multi-campus institution to be known as WACAE.
	4.3	We recommend that the Council of WACAE should have a part-time Chairman and be made up in the following manner: [proposed membership not included here for brevity].
	4.4	We recommend that the Teachers Centre for Continuing Education [which provided ongoing professional development for teachers] should be phased out and that WACAE ... should develop part-time and external courses of study for teachers designed to enable them to upgrade their professional qualifications.
	4.5	We recommend that the WA Post- Secondary Education Commission should make an early study of policy regarding the training of pre-school teachers, particularly with reference to the number and location of the institution that should be concerned with this activity.
	5.1	The Committee recommends that the Technical Education Division should be removed from the control of the Education Department and that a statutory body be set up to be known as the Technical and Further Education Authority, which, through its governing council, should be responsible for development and administration of technical and further education in the State. The composition of the Council should be as follows: [proposed membership not included here for brevity]
	5.2	We recommend that, subject to the powers of the WA Post-Secondary Education Commission, the function and powers of the Council should include the following: <i>Of the 14 proposed functions listed, they are probably best encapsulated by the first listed function below:</i> To plan, coordinate and administer the technical and further education system in Western Australia.
	5.3	We recommend that all present staff to the Technical Education Division be transferred to the new Technical and Further Education Authority to positions of no lower classification or salary than their current positions carry and that present conditions and accrued rights to staff be retained in the transfer.
	6.1	We recommend the establishment, in selected centres, of comprehensive community colleges as a means of decentralising post-secondary education in Western Australia. We further recommend that these colleges should be closely associated with, and where possible evolve from, the system of technical schools in country districts.
	6.2	We recommend the establishment in the near future of technical schools at Karratha and Port Hedland to be planned in such a way as to make possible their early development into community colleges.

REPORT		RECOMMENDATIONS (abbreviated)
	6.3	We recommend the early establishment in Bunbury of a community college to be developed from the existing Bunbury Technical School.
	6.4	We recommend that the associateships and degree level courses at present being offered in the Western Australian School of Mines at Kalgoorlie should be progressively transferred to the Bentley Campus of the Western Australian Institute of Technology.
	6.5	We recommend that the Eastern Goldfields Technical School should be further developed, staffed, and equipped to offer a wide range of courses, at levels appropriate to the institution, to meet varied needs of the mining industry and of the people of Kalgoorlie-Boulder and of the Eastern Goldfields region.
	6.6	We further recommend that the proposed Post-Secondary Education Commission and the Council of the Technical and Further Education Authority should jointly consider as a matter of high priority the development of the Eastern Goldfields Technical School into a community college of the type discussed in the early part of this chapter.
	7.1	We recommend that the proposed Post-Secondary Education Commission should initiate a study of the future developments of the WAIT especially with reference to rate of growth in student numbers and enrolment ceilings within several schools.
	7.2	We recommend that the WA Post-Secondary Education Commission should institute an inquiry to determine the sitting, timing and character of future tertiary institutions to be established in Western Australia for the rest of the century.
	7.3	We recommend that planning at present in progress for a new college of advanced education at Cockburn should be discontinued pending the outcome of this inquiry.
	7.4	We recommend that Graylands Teachers College should be phased out, the timing to be determined by WACAE in collaboration with the WA Post-Secondary Education Commission.
	8.1	We therefore recommend that the W.A Tertiary Education Commission Act (1970) should be repealed and that there be established by new legislation a body to be known as the Western Australian Post-Secondary Education Commission.
	8.2	We further recommend that the WA Post-Secondary Education Commission be constituted in the following manner [proposed membership not included here for sake of brevity]
JACKSON, 1967	1 – 5	That a four-person Tertiary Education Commission be established as a standing advisory commission to the Government on developments and needs in tertiary education and co-ordination between tertiary education institutions.

REPORT		RECOMMENDATIONS (abbreviated)
	6	That the tertiary institutions based on single subject fields should become or form part of general colleges of advanced education either by expansion or amalgamation.
	7	That the name of the Western Australian Institute of Technology be changed to WACAE.
	8	That the University of Western Australia should not be allowed to grow beyond a maximum of 8,000 full-time and 2,000 part-time students on its present campus.
	9	That the University of Western Australia be encouraged to commence planning in the 1970-72 triennium for a university college to open as soon as possible in the following triennium: such a college in the first instance to relieve the pressure of numbers at first and second year level.
	10	That for country students unable to attend a tertiary institution, external study facilities be provided in as many subject fields as possible.
	11	That the University of Western Australia and the Western Australian College of Advanced Education be requested to expand their facilities for external studies whether severally or by joint action
	12	That, as a pilot project, a college of advanced education be established in a country town, in the first instance as a branch of WACAE.
	13	That this college be given a composite character, by providing courses as required and where feasible for university, technological, teacher training and other tertiary studies.
	14-16	That this college be located in Bunbury and have an advisory council and that, subject to its success, colleges be commenced in other country centres such as Albany and Geraldton.
	17-18	That an Advisory Committee on Agricultural Education be established, for the purpose of advising the Government on agricultural education at all levels and that the membership of this Committee be representative of farming and grazing interests, the Department of Agriculture, and appropriate educational authorities.
	19	That Muresk Agricultural College be transferred from the control of the Department Agriculture and become part of an agricultural department to be set up in WACAE.
	20	That the University and WACAE be asked to consider ways of meeting the need for training in farm management.
	21	That a School of Veterinary Science be established within the University as soon as possible.
	22-25	That the School of Mines of Western Australia be made independent of the Mines Department and governed by a large

REPORT		RECOMMENDATIONS (abbreviated)
		council with wide representation and that it provide other tertiary courses and consider re-establishment of the degree in mining engineering.
	26	That the University [of Western Australia] be requested to add executant studies [performance skills] to its courses in music.
	27	That a school of physiotherapy and occupational therapy be established at the Shenton Park Annexe of the Royal Perth Hospital as a department of WACAE, with an advisory committee consisting of representatives from the Faculty of Medicine, the appropriate registration bodies, the medical profession, the hospital, the Health Department, and the College itself.
	28	That the College of Nursing be encouraged to consider affiliation with a tertiary educational institution with a view to widening the scope of the courses that it seeks to provide for nurses.
	29	That the Tertiary Education Commission set up a sub-committee to enquire into training levels and qualifications in pharmacy.
	30-33	That planning start now for the removal of teacher education from the Education Department with a view to their becoming autonomous colleges of advanced education as soon as practicable; that the next provision for teacher education be the establishment of a department in WACAE on its site at Bentley and that in view of recommendation 6, the Tertiary Education Commission should initiate discussions between the Education Department, the University [of Western Australia] and WACAE, to consider the pattern of secondary teacher training.
	34	That the Kindergarten Teachers' College be given the opportunity to enter into close association with a more diversified tertiary institution, should it at any time desire to do so.
	35	That sites be reserved immediately for anticipated tertiary institutions in both the metropolitan and country town areas, and that the Tertiary Education Commission consult with the Lands Department and planning authorities to establish a procedure for reserving sites as needs indicate.
	36	That the University [of Western Australia], in consultation with the Government, secure forthwith a site south of the Swan River for the university college envisaged in recommendation 9.

Appendix B – Western Australia’s tertiary education ecosystem

Between 1911 and 1991, Western Australia saw the establishment of 4 public universities, each governed by its own Act of State Parliament:

- The *University of Western Australia Act 1911*
- *Curtin University Act 1966*
- *Murdoch University Act 1973*
- *Edith Cowan University Act 1984*.

These universities and the private University of Notre Dame Australia (UNDA) serve a State population of approximately 2.8 million people, of whom just over 2.2 million live in the Greater Perth area (Australian Bureau of Statistics, 2022).

While Murdoch and UWA began as ‘conventional’ research/teaching institutions, both Curtin and ECU evolved differently and have more focused missions. Murdoch University was built upon land originally endowed to UWA and, since its inception, has operated the State’s only veterinary school. It is also notable that Curtin and Murdoch are based south of the CBD and in close proximity to one other. ECU is based north of the CBD, servicing that region well and expanding to a city presence with a focus on creative industries, business and technology studies and capacity for over 10,000 students. UWA is also servicing a central city location.

Although the universities receive the majority of their funding from the Commonwealth, they are statutory authorities under the *Financial Management Act 2006* (WA) and required to produce an annual report which is tabled in the Western Australian Parliament. Other funding sources include State Government funding, overseas student fees, investment income, and contract research and consultancy income. According to each Act of State Parliament, the universities are required to function for the ‘prosperity and welfare’ or ‘benefit and wellbeing’ of the Western Australian community.

Beyond the 4 public universities, other institutions form part of a complex and fragmented tertiary education ecosystem in Western Australia, including:

- **Private higher education providers** currently registered by TEQSA as meeting the requirements of the Higher Education Standards Framework 2021:
 - Colleges of Business and Technology (WA) Pty Ltd
 - International Institute of Business and Technology (Australia) Pty Ltd
 - Montessori World Education Institute (Australia) Inc
 - Edith Cowan College Pty Ltd
 - The University of Notre Dame Australia
 - Perth Bible College Inc
 - Engineering Institute of Technology Pty Ltd
 - Sheridan College Inc
 - Stanley International College Pty Ltd
 - The Australian Data Institute Pty Ltd.
- **Regional Universities Centres**, supporting higher education provision beyond the metropolitan area. These federally funded centres, recently renamed Regional Study Hubs, help students in regional and remote areas access tertiary education without leaving their community. As well as providing infrastructure to support online study, they provide administrative, academic and student support services. Currently, 10 RUCs are servicing communities across the North West, Mid West, Wheatbelt and South West regions. Some RUCs collaborate with universities to deliver courses offering a combination of online and face-to-face learning. It is of interest that the university most actively supporting Western Australia’s RUCs is CQU.

- **Vocational Education and Training institutions** offering post-school pathways via a network of Registered Training Organisations, including State Government TAFE colleges divided into 5 regions:
 - North Metropolitan TAFE
 - South Metropolitan TAFE
 - North Regional TAFE (11 locations across the Pilbara and Kimberley)
 - South Regional TAFE (12 locations across the South West)
 - Central Regional TAFE (9 locations across the Mid West and Goldfields).
- **Medical and scientific research institutes** operating in parallel with the tertiary education sector and demonstrating various levels of collaboration with the university sector. A list of Western Australia's health and medical research organisations is provided in Appendix K. Examples of scientific research institutes working in collaboration with Western Australian universities are CSIRO and the Australian Institute of Marine Science.

Appendix C – Terms of Reference

Background

Universities make an integral contribution to Western Australian (WA) society and economy – through educating our students, developing a highly skilled labour force across all industry and occupation areas, driving world class research and innovation, as large employers and also as key focal points and hubs within their local community.

However, in recent years, WA's university sector has become increasingly constrained. Prior to the COVID-19 pandemic, the sector experienced declining Australian Government funding, relatively low growth in student enrolments and a declining share of Australian Government competitive research grants. This has not been the consistent experience nationally.

This is in addition to the broader challenges being faced by the higher education sector, including increased international competition for prospective students and talent; changing student preferences in delivery models (online vs on-campus experiences) and the type of courses (micro-credentials vs multi-year degrees); speed of change in new technology and practices within industries, with an increased prevalence of employer credentialling.

There have been some positive efforts from institutes, with support from the WA Government, to address these challenges – including, for example, the Future Health Research and Innovation Fund, the International Centre for Radioastronomy Research (ICRAR), and the Pawsey High Performance Supercomputing Research Centre.

The WA Government therefore considers now is the time to undertake an independent review of the structure of the public university sector in WA to secure high performance and financial sustainability of the sector.

Purpose

The purpose of the review is to explore whether structural change will deliver improved performance and financial sustainability for WA's public university sector. This is to include consideration of structural models that could deliver improvements that:

- Meet the State's current and future knowledge and skills needs
- Increase student enrolments, both domestically and internationally
- Give students equitable access to high quality university education
- Enhance the student experience of attending university in WA
- Support the financial sustainability of the sector
- Increase WA's share of Australian competitive research funding
- Assist the sector to undertake and commercialise high quality research that drives economic growth, including increasing intellectual property creation, impact, publication, citations and awards
- Attract and retain high calibre academic staff
- Strengthen relationships with business, industry, and the vocational education and training (VET) and school sectors.

Scope

In scope

With regard to the Purpose set out above, the scope of the review extends to:

- Identification of the various structural change options available to WA's public university sector, including, but not limited to, amalgamation, federation and consortia models
- Recommendations on what structural change should be implemented
- Consideration of how the options would affect both all and the various subsets of WA's public universities

- Consideration of lessons learnt from international and national examples of structural change within the higher education sector
- Identification of the critical enablers for any recommended structural change, such as stakeholder buy-in and leadership, change management, legislation change, and funding implications.

Out of scope

The review is the first step towards considering structural change to the WA public university sector. It is recognised that, for any proposed reform to be adopted, further detailed work will be required on the policy design and implementation, cost-benefit analysis, business case, change management planning, and legislative implications. This work is out of scope of the review.

The review will also not:

- Explore significant changes to the underlying models of university funding and regulation provided by the Commonwealth Government, other than as required to facilitate identified structural reforms
- Investigate structural reform within individual universities, other than as required to facilitate identified structural reforms
- Investigate structural reform to the VET sector.

Governance

The review is being undertaken by a panel (the Review Panel) comprising of:

- Professor Sandra Harding as lead reviewer – former Vice-Chancellor and President of James Cook University from 2007-22.
- Professor John Williams, Executive Dean Faculty of Arts, Business, Law and Economics at the University of Adelaide, as a supporting panel member.
- Dr Ian Watt, former Secretary of the Department of the Prime Minister and Cabinet, as a supporting panel member.
- Professor Peter Shergold, former Chancellor of Western Sydney University and former Secretary of the Department of the Prime Minister and Cabinet, as a special adviser.

The Review Panel will report to the Minister for Education and be provided with secretariat support from the Department of Education.

Deliverables

An interim report outlining emerging findings and recommendations will be delivered to the Minister for Education within 4 months of commencement.

A final report outlining final findings and recommendations will be delivered to the Minister for Education within 6 months of commencement. Unless otherwise agreed, the final report will mark the completion of the review.

Engagement

The Review Panel will undertake targeted engagement with relevant stakeholders, including Vice-Chancellors, staff, students, industry and other identified persons and organisations. The methods for engagement are expected to include face-to-face and other modes to be determined by the Panel. There will not be a submission process undertaken for the review.

The Review will also be supported by an interagency committee of representatives from key government agencies, chaired by the Department of Education.

Appendix D – List of stakeholders met

Attendee(s)
A/Auditor General, Office of the Auditor General WA
Assistant Under Treasurer, Department of Treasury
Australian Government Department of Education representatives
Australian Government Minister for Education
Australian Research Council
Australian Trade and Investment Commission
Australian Universities Accord Panel
Business and industry representatives: • Business Council of Australia • Chamber of Commerce and Industry WA • Chamber of Minerals and Energy WA • Engineers Australia • Future Fund • Regional Chambers of Commerce and Industry WA • Resources Industry Training Council WA • Telethon Kids Institute • Wesfarmers
Chair of past WA tertiary sector reviews 2013 and 2014
Chair, Education and Health Standing Committee
Chairperson, Study Perth
Chancellors: • Curtin • ECU • Murdoch • UWA
Chief Executive Officer, Study Perth

Attendee(s)
Deputy Director General, JTSI
Directors General, departments of: • Education • Jobs, Tourism, Science and Innovation • Premier and Cabinet • Training and Workforce Development
Former Vice-Chancellor, Deakin University
Minister for: • Education • Training • International Education
National Health and Medical Research Council
National Tertiary Education Union WA division
Pathways to Post-School Success Review Panel
RUC representatives
Senior leadership: • DTWD • TAFE • Universities Australia • Tertiary Education Quality and Standards Agency
University academic board, senior leadership and staff representatives: • Curtin • ECU • Murdoch • UWA
University Student Guild Presidents
University Vice-Chancellors: • Curtin • ECU • Murdoch • Notre Dame Australia • UWA
WA Chief Scientist

Appendix E – Discussion Paper recipients

	Stakeholder type	Stakeholder organisation
1.	Australian Government	Australian Universities Accord Panel
2.	Australian Government	Department of Education
3.	Australian Government	Department of Employment and Workforce Relations
4.	Australian Government	Department of the Prime Minister and Cabinet
5.	Education	School Curriculum and Standards Authority
6.	Education	Catholic Education WA
7.	Education	Association of Independent Schools Western Australia
8.	Higher Education	Australian Technology Network of Universities
9.	Higher Education	Geraldton Universities Centre
10.	Higher Education	Great Southern Universities Centre
11.	Higher Education	Group of 8
12.	Higher Education	Innovative Research Universities
13.	Higher Education	Lumen Wheatbelt Regional University Centre
14.	Higher Education	Regional Universities Network
15.	Higher Education	Pilbara Kimberley Universities Centre
16.	Higher Education	Study Perth
17.	Higher Education	Tertiary Education Quality and Standards Agency
18.	Higher Education	Universities Australia
19.	Industry and Business	Agent General for Western Australia UK/Europe
20.	Industry and Business	Australian Institute of Marine Science
21.	Industry and Business	Business Council of Australia
22.	Industry and Business	Chamber of Commerce and Industry WA
23.	Industry and Business	Chamber of Minerals and Energy WA
24.	Industry and Business	Committee for Perth
25.	Industry and Business	Engineers Australia
26.	Industry and Business	Senior Mining Executive
27.	Industry and Business	Former Chancellor Curtin University
28.	Industry and Business	Former Chancellor ECU
29.	Industry and Business	Former Chancellor Murdoch
30.	Industry and Business	Former Vice-Chancellor Deakin University

	Stakeholder type	Stakeholder organisation
31.	Industry and Business	Former Vice-Chancellor UWA
32.	Industry and Business	Future Fund board member
33.	Industry and Business	Independent Tertiary Education Council Australia
34.	Industry and Business	Minerals Council of Australia
35.	Industry and Business	Battery Minerals
36.	Industry and Business	Former Chancellor UWA
37.	Industry and Business	Minerals Research Institute of WA
38.	Industry and Business	Regional Chambers of Commerce and Industry
39.	Industry and Business	Telethon Kids Institute
40.	Industry and Business	Venture Capital
41.	Industry and Business	WACOSS
42.	Industry and Business	WA Farmers Federation
43.	National Agency	CSIRO
44.	National Agency	Pawsey Supercomputing Research Centre
45.	National Agency	Office of the Chief Scientist
46.	TAFE	South Regional TAFE
47.	TAFE	North Regional TAFE
48.	TAFE	Central Regional TAFE
49.	TAFE	North Metro TAFE
50.	TAFE	South Metropolitan TAFE
51.	Unions	National Tertiary Education Union
52.	Universities	Australian National University
53.	Universities	Curtin Student Guild
54.	Universities	Curtin University
55.	Universities	Edith Cowan University Student Guild
56.	Universities	Edith Cowan University
57.	Universities	Murdoch Student Guild
58.	Universities	Murdoch University
59.	Universities	University of Notre Dame
60.	Universities	UWA
61.	Universities	UWA Student Guild

	Stakeholder type	Stakeholder organisation
62.	WA Government	Office of the Chief Scientist
63.	WA Government	Department of Education
64.	WA Government	Department of Jobs, Tourism, Science and Innovation
65.	WA Government	Department of Primary Industries and Regional Development
66.	WA Government	Department of the Premier and Cabinet
67.	WA Government	Department of Training and Workforce Development
68.	WA Government	Department of Treasury
69.	WA Government	Infrastructure WA
70.	WA Government	Office of the Auditor General WA
71.	WA Government	Public Sector Commission
72.	WA Government	State Training Board

Appendix F – Discussion Paper responses

	Stakeholder organisation
1.	Association of Independent Schools of Western Australia
2.	Australian Institute of Marine Science
3.	Australian Technology Network of Universities (Curtin member)
4.	Business Council of Australia
5.	Catholic Education Western Australia
6.	Chamber of Minerals and Energy Western Australia
7.	Committee for Perth
8.	CSIRO
9.	Curtin University
10.	Department of Primary Industries and Regional Development
11.	Edith Cowan University
12.	Engineers Australia
13.	Former Vice-Chancellor UWA
14.	Geraldton Universities Centre
15.	Group of Eight (UWA member)
16.	Industry representative
17.	Infrastructure Western Australia
18.	Innovative Research Universities (Murdoch University member)
19.	Future Fund board member
20.	Minerals Council of Australia
21.	Minerals Research Institute of Western Australia
22.	Murdoch University
23.	National Centre for Student Equity in Higher Education (at Curtin University)
24.	National Tertiary Education Union
25.	Pawsey Supercomputing Research Centre
26.	Pilbara Kimberley Universities Centre
27.	Public Sector Commission Western Australia

	Stakeholder organisation
28.	Regional Chambers of Commerce and Industry Western Australia
29.	School Curriculum and Standards Authority
30.	Student Guild – Curtin University
31.	Student Guild – Edith Cowan University
32.	Student Guild – Murdoch University
33.	Student Guild – University of Western Australia
34.	Telethon Kids Institute
35.	University of Notre Dame Australia
36.	UWA
37.	UWA Chair of Academic Board
38.	WA Chief Scientist
39.	WA Skills (combined response from Department of Training and Workforce Development, TAFE Colleges, TAFE International and State Training Board)

Appendix G – University ranking systems

Ranking system	Description	Measures
QS World University Rankings®	The QS World University Rankings assesses universities on 6 performance indicators, relating to research, teaching, employability and internationalisation. To be eligible for inclusion, institutions must teach at both undergraduate and postgraduate level, and conduct work in at least 2 of 5 broad faculty areas: • arts and humanities • engineering and technology • social sciences and management • natural sciences • life sciences and medicine.	• Academic reputation (worth 40% of the overall score) Based on a global survey of academics, who are asked to identify the leading institutions in their field. • Employer reputation (10%) Based on a global survey of graduate employers, who are asked to identify the institutions producing the best graduates in their sector. • Student-to-faculty ratio (20%) An indication of commitment to high-quality teaching and support. • Research citations per faculty member (20%) This is normalized by subject area, and reflects the impact of an institution's research. • Proportion of international faculty (5%) A measure of an institution's success in attracting faculty from overseas. • Proportion of international students (5%) A measure of an institution's success in attracting students from overseas.
Times Higher Education World University Rankings	The THE World University Rankings uses 13 performance indicators, grouped into 5 categories. Institutions are excluded if they do not teach at undergraduate level, or if their research output is below a certain threshold.	• Teaching (worth 30% of the overall score) Based on a reputation survey (15%), staff-to-student ratio (4.5%), doctorate-to-bachelor's ratio (2.25%), doctorates-awarded-to-academic-staff ratio (6%) and institutional income (2.25%). • Research (30%) Based on a reputation survey (18%), research income (6%) and research papers published per faculty member (6%). • Research citations (30%) Based on the number of citations a university's research obtains, normalized by subject area. • International outlook (7.5%) Based on international-to-domestic-student ratio (2.5%), international-to-domestic-staff ratio (2.5%) and international research collaborations (2.5%). • Industry income (2.5%) Based on income earned from industry,

Ranking system	Description	Measures
		relative to the number of academic staff employed, and adjusted for PPP.
Academic Ranking of World Universities (ARWU)	Also widely known as the Shanghai Ranking, ARWU assesses 6 performance indicators, all relating to research excellence. The ranking considers all institutions with Nobel Laureates, Fields Medallists, highly cited researchers, papers published in Nature or Science, or a significant number of papers indexed by the Science Citation Index-Expanded (SCIE) or Social Science Citation Index (SSCI).	• Alumni (worth 10% of the overall score) Based on the number of alumni of an institution who have won Nobel Prizes and Fields Medals, with greater weight given to more recent recipients. • Awards (20%) Based on the number of staff affiliated with an institution who have won Nobel Prizes in physics, chemistry, medicine and economics, and Fields Medals in mathematics, with greater weight given to more recent recipients. • Highly cited researchers (20%) Based on an institution's number of highly cited researchers, according to the latest list published by Thomson Reuters. • Papers in Nature and Science (20%) Based on the number of papers published in these 2 influential journals, drawing on a 4-year period. For institutions specialised in social sciences and humanities, this category does not apply. • Papers indexed (20%) Based on the number of papers indexed in the Science Citation Index-Expanded and • Social Science Citation Index in the preceding calendar year, with a double weighting for papers indexed in the Social Science Citation Index. • Per capita performance (10%) The weighted scores of the other indicators, divided by the number of FTE academic staff.
(Bridgestock, 2021)		

Appendix H – Structural change implementation success factors

Category of possible structural change	Definition	Examples	Implementation Challenges	Key Success Factors to Implementation
No Change	Maintain current universities in existing historical genres and organisational arrangements		None But challenges are overcoming current performance issues without structural change as the response or solution.	Make explicit and clear the decision not to change structurally but achieve other performance improvements.
Cooperation	Informal collaboration between individuals, groups or whole institutions in areas of research and teaching and learning activity and provision	Brisbane Universities Language Alliance as an agreement for 3 universities to cooperate in offering languages to students without competing.	Few The outcome will have some of the challenges of no change from above and the cooperative part is achievable and may even be a stage towards later more substantial change.	Make explicit and clear the decision not to have structural change but achieve other performance improvements. Lead the culture change associated with cooperation to ensure progress.
Consortia	Joint departments with shared back office, joint research centres/ institutes and dual badging.	Harvard-MIT Health Sciences and Technology Graduate School and Cotutelle Higher Degree Research arrangements	Few The outcome will have some of the challenges of no change from above and the consortia part is achievable and may even be a further stage towards more substantial change.	Make explicit and clear the decision to have structural change and achieve improvements in performance. Leading the Organisational change with the selected consortia to ensure progress.
Federation	Independent institutions sharing governance, brand and back office functions	State-based systems as they operate in California, Georgia and Texas	Significant The change requires appropriate balance between aligning culture and organisational deployment within the federation to achieve outcomes.	Avoid the distraction of primary operations of federated entities while achieving synergies and economies driving federated merger.

Category of possible structural change	Definition	Examples	Implementation Challenges	Key Success Factors to Implementation
External merger	Forming a new entity as an existing institution merges with other existing institutions in different geographical contexts and jurisdictions	The National University for Regional Australia proposal which did not progress was a potential external merger	Extensive The extent will be dependent on the choice of external party and will focus on culture, funding, leadership and process with a particular focus on bridging the external strategic and organisational connections.	Avoiding distraction of operations of merged entities while achieving synergies and economies driving external merger. Focus on rationale, cultural change and change process and transformational leadership.
WA university merger	Forming a new entity between existing institutions in the same geographical and regulatory context	University of Manchester and current plans for South Australia	Extensive The extent will be dependent on whether merger is of 2, 3 or 4 current institutions and will focus on culture, funding, leadership and process.	Avoiding distraction of operations of merged entities while achieving synergies and economies driving WA merger. Focus on rationale, cultural change and change process, and transformational leadership.

Appendix I – Medical Research Institutes in Western Australia

Health and medical research in Western Australia is undertaken by universities and medical research institutes. Below is a list of the State's medical research foundations and institutes.

WA hospital foundations

1. Charlies Foundation for Research
2. Spinnaker Health Research Foundation
3. Princess Margaret Hospital Foundation
4. Royal Perth Hospital Medical Research Foundation

Other WA medical research institutes and foundations

1. Australian Alzheimer's Research Foundation
2. Busselton Population Medical Research Institute
3. Curtin Health Innovation Research Institute
4. Ear Science Institute Australia
5. Edith Cowan University Exercise Medicine Research Institute
6. Fiona Wood Foundation
7. Harry Perkins Institute of Medical Research
8. Institute for Immunology and Infectious Diseases
9. Institute for Respiratory Health
10. Keogh Institute for Medical Research
11. Lions Eye Institute
12. National Centre for Asbestos Related Diseases
13. Perron Institute for Neurological and Translation Science
14. Raine Medical Research Foundation
15. Telethon Kids Institute
16. West Australian Sleep Disorders Research Institute
17. Women and Infants Research Foundation

From https://www.health.wa.gov.au/Articles/F_I/Hospital-foundations-and-research-institutes

Appendix J – Merger stories from other jurisdictions

Merger Location	Problem Statement	What was considered	Action taken	Lessons learnt
The University of Arizona acquisition of Ashford University	The University of Arizona (UA) was lacking an online student capability in comparison to a fast-growing Arizona State University (ASU). From a position of initial leadership in the State as the land-grant university, UA had slipped behind ASU in growth, student numbers and prestige.	The plan to develop an online student capability and capacity was made by an incoming AU President noting the discrepancy between numbers of their online students compared with both ASU and also Southern New Hampshire University with its presence in Tucson.	To acquire the for-profit and fully online Ashford University to form University of Arizona Global Campus with an entity mirroring the principles of the Purdue Kaplan deal to create Purdue Global in 2017	The adoption of acquisition as a merger process allows speed of transition and complementary capacity and capability to be developed between non-alike entities
The University System of Georgia (USG) mergers	Pre-merger problems were seen to be: • rising tuition fees • rising student debt, • enrolment declines, • low graduation rates • loss of faculty • financial pressures.	The mergers in the USG system were initiated by the Board of Regents to better prepare students for the 21 st Century economy and citizenship. The problem being addressed was insufficient capacity for student enrolment and an unduly limited range of degrees, opportunities in research, and service to students and faculty. The aim was to increase overall system effectiveness.	The merger process consolidated eight variously specialised institutions into four comprehensive universities	The merger success was based on the complementarity of pre-merger missions and a well understood and communicated underlying financial imperative for change.
The merger in Manchester of UMIST and the Victoria University of Manchester (VUM)	The 2001 Research Assessment exercises saw both prior institutions under-performing, UMIST because of its small size and narrow focus and VUM because of the nonviability of science and engineering programs as a means of funding research activity vital to competitive performance in future research assessment exercises.	Issues for the design included research problem complexity and calls for inter-disciplinary culture and capability, external business relationships being streamlined, changes in courses and graduate needs, international student competition, management and governance modernisation, and resource limitations from a lack of economies of scale. A starting point of closer relationships was considered by a joint committee of 4 members of each university which considered various grades of cooperation from grassroots collaboration, federal collaboration, a trade model and a combined institution.	A starting point of federal collaboration between business schools was followed by a fully costed 300m pounds merger change program which was HEFCE funded under a staged and managed program minimising interruption to ongoing activity.	Appointment of influential leader and adjoining physical campuses assisted. Ownership of implementation with institutions. Appointing a new VC in advance to manage development and design of the "new" institution. Success factors seen as: clear strategic rationale, similar standing of those merging, external resources and support, contiguous campus, no dispute in CEO appointment.

Merger Location	Problem Statement	What was considered	Action taken	Lessons learnt
Denmark	Denmark's Research Commission identified lack of critical mass and scale and underperformance in international competition as a problem for its universities to address through structural reform.	All institutions were invited to engage in a dialogue with their potential partners as brainstorming sessions. The significant opposition to the idea from many existing universities did not prevent progression of a merger map that ultimately left only one university unchanged.	The eventual merger consolidated 12 universities into eight and 13 research institutes into 2.	Resilience, determination, and engaging participants in a process to react to and shape mapped speculative solutions in developing flexible and well-owned solutions.
Finland	The issues driving this set of mergers originated from the Ministry of Education and Culture's desire for redevelopment of the sector. Problems to be addressed included poor international student recruitment and poor academic quality. Perceived opportunities included increasing competitiveness and creating synergies. The initiative aimed to make it easier to recruit international staff through size, reputation and prestige of new merged universities.	10 pre-existing institutions were considered for the potential for merger to allow some new universities to be better positioned with regard to emerging goals and requirements of the broader system. A structural system review process was initiated by central government and involved the active engagement of leadership and stakeholders of the 10 pre-existing institutions.	Four new universities were created - Aalto, Eastern Finland, Turku and University Alliance Finland from 10 predecessor institutions	Success factors were seen to be transparent communication and leadership, creating joint organisational and educational culture and giving agency to staff and students from the predecessor institutions into the process. The challenges that had to be overcome were resourcing the change, addressing preset opinions and managing inter-campus distances with technology.
Paris Mega University discussions	The perceived need and desire to create a university in the top 10 of global rankings was a driver for growing a mega-university from among firstly the Ecole Polytechnique, the HEC Business School and the Université Paris-Sud with a subsequent addition of the Sorbonne and the Pierre and Marie Curie Universities	While the government-inspired initiative could identify the national benefits of such a move, the limits of central decision-making were to create umbrella-like communities or "communes" and leave the institutions themselves to consider full mergers. The 1968 civil disturbances had seen the earlier University of Paris as one of the world's oldest universities split into 13 autonomous institutions along faculty lines.	While some attempt to create the environment for closer interaction and synergy between individual institutions in "communes" was undertaken, the preparations never progressed to full amalgamation and the underlying problem statement remains.	Being sensitive to history and context and giving credence to local autonomy and legacy in imposing solutions.

Merger Location	Problem Statement	What was considered	Action taken	Lessons learnt
Multiple EU case studies	This summary analysis of 12 case studies sought to draw lessons from multiple varied cases of structural reform across the EU largely driven by the goal of overcoming problems of research and quality underperformance.	12 cases in Austria, Croatia, Holland, Norway, Poland, Denmark, France, Spain, Belgium, Canada, Finland, and the UK were analysed in three categories of types of reform termed horizontal differentiation, vertical differentiation and institutional inter-relationships.	Each of the 12 case studies was pursued through a variety of processes to a conclusion of full or partial merger or enhanced collaboration with many of the goals being realised.	The lessons from this metastudy are that university mergers have been widespread, are of different types, often result in substantial if not full implementation of initial goals, and have various barriers to their consideration and implementation which can be overcome despite often voiced opposition from participants.
Wales	A legacy of 13 small and uncompetitive universities against other UK and EU competitors left Welsh universities under-achieving in research funding and potential for strategic investment.	A central government process and fund created political pressure for change described as facilitating change rather than directing it. Individual institutions took merger decisions in that environment. What was less well considered was the implications of merger facilitation on the creation of "inadvertent multi-campus universities" and the complexity of their eventual operation and management.	Following an extended period of institutions responding and progressing their engagement with a facilitated process, decisions were taken by central government for 8 universities to be formed out of the previous 13.	The value of engaging existing institutions in a long-term, facilitated process. The extra buy-in of allowing institutions to have agency in decision-making within boundary parameters from an overall process. The risk of losing local community engagement and creating the challenge of multi-campus institution management from what can otherwise look to be rational merger decisions.
Norway	Three Norwegian University Colleges were examined for potential merger and the creation of a new University in Norway. The problem posed as the rationale for the merger was lack of national status and poor levels of student recruitment and university performance.	The three existing university colleges were geographically located in three different counties and each had between one and three campuses. Their performance and status was challenged and questioned by their regulators and they were each enticed with the prospect of migrating to full university status only through undertaking a merger process which had become established as the route to becoming a full university in Norway.	A lack of support from each institution and their stakeholder communities led to the merger being abandoned prior to implementation.	The equal importance of addressing both the "why" and "how" of mergers in ensuring participant engagement and commitment to ensuring the merger progresses and is successful.

Bibliography

- ACIL Allen Consulting. (2014). *Unmet demand for higher education in regional Western Australia: Report to the WA Higher Education Council and Department of Education Services*. ACIL Allen Consulting.
- ACIL Allen Consulting. (2020). *Economic contribution of international education in Western Australia: Report to Study Perth*. ACIL Allen Consulting.
- Agasisti, T., Egorov, A., & Maximova, M. (2021). Do merger policies increase universities' efficiency? Evidence from a fuzzy regression discontinuity design. *Applied Economics*, 53(2), 185-204.
- Andrews, P. (2009). Smart State: Are we there yet? *Australian Academy of Technology and Engineering (ATSE) Oration*. Queensland.
- Australian Bureau of Statistics. (2022, June 28). *Location: Census Information on place of usual residence, migration and place of work - Reference period 2021*. Retrieved from Australian Bureau of Statistics: <https://www.abs.gov.au/statistics/people/people-and-communities/location-census/2021>
- Australian Bureau of Statistics. (2022, June 28). *Snapshot of Western Australia - High level summary data for Western Australia in 2021*. Retrieved from Australian Bureau of Statistics: <https://www.abs.gov.au/articles/snapshot-wa-2021>
- Australian Government Department of Education. (2023a, February 9). *Higher Education Statistics : 2021 Section 11 Equity groups*. Retrieved from Australian Government Department of Education: <https://www.education.gov.au/higher-education-statistics/resources/2021-section-11-equity-groups>
- Australian Government Department of Education. (2023b). *Australian Universities Accord Interim Report*. Canberra: Australian Government. Retrieved from <https://www.education.gov.au/australian-universities-accord/resources/accord-interim-report>
- Australian Research Council. (2023, July). *Selection Report: Discovery Early Career Research Award 2022*. Retrieved from Australian Research Council: <https://www.arc.gov.au/funding-research/funding-outcome/selection-outcome-reports/selection-report-discovery-early-career-research-award-2022>
- Bean, M., & Dawkins, P. (2021). *Review of university-industry collaboration in teaching and learning*. Department of Education, Skills and Employment (Australia), ACT.
- Boling, J. R., Mayo, D. T., & Helms, M. M. (2017). Complementarity merger as a driver of change and growth in higher education. *Journal of Organizational Change Management*, 30(1), 27-42. doi:10.1108/JOCM-02-2016-0036
- Bowman, S., Klomp, N., Bentley, D., Cameron, A., Quester, P., & Shoemaker, A. (2023). *Designing and delivering hybrid and work-backed qualifications for working*. Retrieved from https://www.education.gov.au/system/files/documents/submission-file/2023-04/AUA_tranche1_Australia%26%23039%3Bs%20dual%20sector%20universities.pdf
- Bridgestock, L. (2021, April 19). *World University Ranking Methodologies Compared*. Retrieved from QS Top Universities: <https://www.topuniversities.com/university-rankings-articles/world-university-rankings/world-university-ranking-methodologies-compared>
- Cai, Y., Pinheiro, R., Geschwind, L., & Aarrevaara, T. (2016). Towards a novel conceptual framework for understanding mergers in higher education. *European Journal of Higher Education*, 6(1), 7-24.
- Curtin University Act 1966. WA: Government of Western Australia. Retrieved from https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_235_homepage.html
- Department of Education Services. (2002). *A coordinated strategy for higher education in regional Western Australia*. Perth: Government of Western Australia.
- Department of Education Services and The Western Australian Higher Education Council. (2014). *Unmet demand for higher education in regional Western Australia*. Perth: ACIL Allen Consulting.

- Department of Employment and Training. (2005). *Smart Queensland: smart state strategy 2005-2015*. Queensland: State of Queensland.
- Department of Jobs Tourism Science and Innovation. (2020, December 11). *Western Australian International Education Recovery and Renewal Plan*. Retrieved from WA.gov.au: https://www.wa.gov.au/system/files/2020-12/International-Education-Recovery-Renewal-Plan_0.pdf
- Edith Cowan University Act 1984*. WA: Government of Western Australia. Retrieved from https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_282_homepage.html
- Engineers Australia. (2022, August). *Strengthening the engineering workforce in Australia: Solutions to address the skills shortage in the short, medium, and long term*. Retrieved from Engineers Australia: <https://www.engineersaustralia.org.au/sites/default/files/2022-08/strengthening-engineering-workforce-australia.pdf>
- File, J., Huisman, J., de Boer, H., Seeber, M., Vukasovic, M., & Westerheijden, D. (2016). *Structural Higher Education Reform – Design and Evaluation*. European Commission, Education and Culture Report. doi:10.2766/79662
- Georgiou, L. (2015). Strategy to Join the Elite: Merger and the 2015 Agenda at the University of Manchester – An Update. In A. Curaj, L. Georgiou, J. Cassingena Harper, & E. Egron-Polak, *Mergers and Alliances in Higher Education*. Springer.
- Geraldton Universities Centre. (2023, April 21). *Celebrating the graduating class of 2023*. Retrieved from Geraldton Universities Centre: <https://www.guc.edu.au/celebrating-the-graduating-class-of-2023>
- Government of South Australia. (2022, December 8). *University merger discussions progress as all parties sign Statement of Cooperation*. Retrieved from Department for Industry, Innovation and Science: <https://www.diis.sa.gov.au/news-events/latest-news/university-merger-discussions-progress-as-all-parties-sign-statement-of-cooperation>
- Government of South Australia. (2023, July 3). *Historic agreement to create university for the future*. Retrieved from Government of South Australia: <https://www.premier.sa.gov.au/media-releases/news-items/historic-agreement-to-create-university-for-the-future>
- Government of South Australia, House of Assembly. (2023, September 4). Joint Committee on the Establishment of Adelaide University (Official Hansard). South Australia: Parliament of South Australia.
- Government of Western Australia. (2019). *Diversify WA July 2019 – July 2021*. Perth: Department of Jobs Tourism Science and Innovation. Retrieved from https://www.wa.gov.au/system/files/2021-10/2108-083_Diversify%20WA-Web.pdf
- Government of Western Australia. (2021). *Diversify WA. Supply chain development plan 2021 - 22*. Perth: Department of Jobs Tourism Science and Innovation. Retrieved from https://www.wa.gov.au/system/files/2021-10/2109-095_DWA-Supply%20Chain%20Development%20Plan-Web.pdf
- Government of Western Australia. (2023). *Future State. Accelerating Diversify WA*. Perth: Department of Jobs Tourism Science and Innovation. Retrieved from <https://www.wa.gov.au/government/publications/diversify-wa-future-state>
- Government of Western Australia. (2023, March 10). *Western Australia's economy and international trade*. Retrieved from WA.gov.au: <https://www.wa.gov.au/government/publications/western-australias-economy-and-international-trade>
- Harding, S., Watt, I., Williams, J., & Shergold, P. (2023). *University Sector Review Western Australian public universities Discussion Paper 1 May 2023*. Retrieved September 28, 2023, from <https://apps.det.wa.edu.au/docserver/?key=WbY1vmgpHBN5FK6EoLWoia>
- Harman, G., & Harman, K. (2003). Institutional mergers in higher education: Lessons from international experience. *Tertiary Education Management*, 9(1), 29-44.
- Harman, G., & Harman, K. (2008). Strategic mergers of strong institutions to enhance competitive advantage. *Higher Education Policy*, 21, 99-121.

- Invest and Trade Western Australia. (2023). *Western Australian Investment and Trade Plan 2022 – 24*. Perth: Government of Western Australia. Retrieved July 17, 2023, from https://www.wa.gov.au/system/files/2023-03/Western_Australian_Investment_and_Trade_Plan_2022-24.pdf
- Kurzweil, M., Andrews, M., Bond Hill, C., Jones, S., Radecki, J., & Schonfeld, R. C. (2021). *Public College and University Consolidations and the Implications for Equity Lessons from Georgia, Texas, and Wisconsin*. Ithaca S+R. doi:10.18665/sr. 315846
- McKenzie, L. (2020, August 3). *University of Arizona's Big Online Push*. Retrieved from Inside Higher Ed: <https://www.insidehighered.com/news/2020/08/04/university-arizona-acquires-ashford-university>
- Mitchell, N. (2015, November 25). *Big is beautiful for merging universities*. Retrieved May 29, 2023, from BBC News: <https://www.bbc.com/news/business-34902884>
- Murdoch University Act 1974*. WA: Government of Western Australia. Retrieved from https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_282_homepage.html
- O'Connor, B. (2023, August 25). *Transcript - Doorstop*. Retrieved from Minister's Media Centre Ministers of the Employment and Workplace Relations Portfolio: <https://ministers.dewr.gov.au/oconnor/transcript-doorstop-perth>
- Parkville Precinct Medical. (2023, September). *Research*. Retrieved from Parkville Precinct Medical: <https://parkvilleprecinctmedical.com.au/research/>
- Partridge, P. H. (1976). *Post Secondary Education in Western Australia*. Perth: Western Australian Government.
- Persson, M., & Frostenson, M. (2021). Support and opposition in an attempted higher education merger. *Tertiary Education and Management*, 27, 59-72.
- Piheiro, R., Berg, L. N., Geschwind, L., & Torjesen, D. O. (2017). Strategic mergers in the public sector: comparing universities and hospitals. In Tarba, Cooper, Sarala, & Ahammad, *Mergers acquisitions in practice*. Routledge.
- Poutanen, M. (2022). Competitive Knowledge Economies driving new logics in higher education – reflections from a Finnish university merger. *Critical Policy Studies*. doi:10.1080/19460171.2022.2124429
- Productivity Commission. (2023). *Advancing prosperity: 5 year productivity review*. ACT: Commonwealth of Australia.
- Puusa, A., & Kekale, J. (2015). Feelings over facts – a university merger brings organisational identity to the forefront. *Journal of Higher Education Policy and Management*, 37(4), 432-446.
- Russell, L. (2019). Better outcomes without increased costs? Effects of Georgia's University System consolidations. *Economics of Education Review*, 68, 122-135.
- Seares, M. (2013). *Future directions for the role of the State in Higher Education*. Department of Education Services, Western Australia. Perth: Department of Education Services, Western Australia.
- Seares, M. (2014). *Independent Review of the Vocational Education and Training Sector in Western Australia: 2013-14*. Perth: Department of Training and Workforce Development.
- ShanghaiRanking Education Information Consultancy Co.Ltd. (2022). *The merger of four universities in Western Australia in the 2021 Academic Ranking of World Universities: A simulation approach*. Shanghai, China: ShanghaiRanking Education Information Consultancy Co.Ltd.
- Skills and Workforce Ministerial Council. (2023). *Communique - Meeting of Federal, State and territory Skills Ministers*. Skills and Workforce Ministerial Council. Retrieved September 7, 2023, from <https://www.dewr.gov.au/skills-commonwealthstate-relations/resources/skills-and-workforce-ministerial-council-communique-19-may-2023>
- Slade, C. P., Ribando, S., Fortner, C., & Walker, K. V. (2022). Mergers in higher education: it's not easy. Merger of two disparate institutions and the impact on faculty research productivity. *Studies in Higher Education*, 47(6), 1215-1226.
- Smart, D. (1989). *Higher education policy in Western Australia: A consultancy report to the Higher Education Review Committee*. Perth: Smart Consulting.

- South West Development Authority. (1983). *Advanced Education Needs South West of Western Australia: South West Development Authority Advisory Committee Report*. Bunbury: South West Development Authority.
- Stensaker, B., Persson, M., & Pinheiro, R. (2015). When Mergers fail: A case study on the critical role of external stakeholders in merger initiatives. 6(2), 56-70.
- Sułkowski, L., Fijałkowska, J., & Dzimińska, M. (2019). Mergers in higher education institutions: a proposal of a novel conceptual model. *Managerial Finance*, 45(10/11), 1469-1487.
- The World Bank. (2022). *DataBank, World Development Indicators GDP (current US\$)*. Retrieved September 28, 2023, from The World Bank: <https://databank.worldbank.org/indicator/NY.GDP.MKTP.CD/1ff4a498/Popular-Indicators>
- Times Higher Education. (2023, September). *World University Rankings 2024*. Retrieved September 28, 2023, from Times Higher Education: https://www.timeshighereducation.com/world-university-rankings/2024/world-ranking#!/length/25/locations/AUS/sort_by/rank/sort_order/asc/cols/stats
- University of South Australia. (2023, May 8). UniSA Vice-Chancellor Professor David Lloyd to serve as next Chair of Universities Australia. Retrieved May 9, 2023, from University of South Australia: <https://www.unisa.edu.au/media-centre/Releases/2023/unisa-vice-chancellor-professor-david-lloyd-to-serve-as-next-chair-of-universities-australia/>
- University of South Australia and The University of Adelaide. (2023). *Feasibility Assessment: Creation of a University for the Future August 2023*. Adelaide: Joint Project Management Office. Retrieved from <https://adelaideuni.edu.au/siteassets/docs/business-case-comprehensive-summary.pdf>
- University of Western Australia Act 1911*. WA: Government of Western Australia. Retrieved from https://www.legislation.wa.gov.au/legislation/statutes.nsf/main_mrtitle_1020_homepage.html
- Ursin, J., & Aittola, H. (2021). It's not like everything changes just with a click on new year's eve: perceptions on educational issues of university mergers in Finland. *Higher Education Policy*, 34, 543-559.
- Valimaa, J., Aittola, H., & Ursin, J. (2014). University Mergers in Finland: Mediating Global Competition. *New Directions for Higher Education*, 168, 41-53.
- Western Australian Higher Education Council. (2015). *Strategic plan for higher education in Western Australia 2015*. Perth: Government of Western Australia.
- Western Australian Post Secondary Education Commission. (1985). *Senates and councils of tertiary institutions in Western Australia: Review of structures and functions. Report of the Tertiary Institutions Governance Committee*. Perth: Western Australian Post Secondary Education Commission.
- Western Australian Tertiary Education Commission, & Jackson, L. (1967). *Tertiary Education in Western Australia: Report of the Committee Appointed by the Premier of Western Australia Under the Chairmanship of Sir Lawrence Jackson, Perth*. Western Australian Tertiary Education Commission. Perth: University of Western Australia Press.
- Williams, J. (2017). *Collaboration, Alliance and Merger among Higher Education Institutions: OECD Working Paper No. 160*. OECD, Directorate for Education and Skills. Retrieved from <https://www.oecd-ilibrary.org/content/paper/cf14d4b5-en>
- Zeeman, N., & Benneworth, P. (2017). Globalisation, mergers and inadvertant multi-campus universities: reflections from Wales. *Tertiary Education and Management*, 23(1), 41-52.

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