Project Evaluation Summary
Northern Transformation Program

Proponent University of Tasmania
Evaluation date 13 June 2019

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1. Summary

Infrastructure Australia has added the University of Tasmania Northern Transformation Program to the Infrastructure Priority List as a Priority Project.

The University of Tasmania operates campuses in Launceston and Burnie, but these facilities are outdated, in inconvenient locations and limit the university’s capacity to offer modern courses. Together, these deficiencies have contributed to student enrolments falling and have limited the opportunity to improve social outcomes for northern Tasmania. Many residents are faced with the challenges of high unemployment and below-average education levels, leading to low workforce participation and low economic growth compared with national levels.

The University of Tasmania has developed a Northern Transformation Program (the Program) to drive better social and economic outcomes through increased university participation. It aims to achieve this by delivering courses that are more relevant, accessible and attractive to a greater cohort of Tasmanian, interstate and international students in more vibrant and modern campuses. Integrating and connecting these campuses to the Launceston and Burnie city centres can also encourage urban regeneration in these areas.

The $300 million Program incorporates:

- the delivery of new types of degrees and courses, including associate degrees, bachelor degrees and short courses, which better meet the needs of students and industry
- relocating existing campuses in Launceston and Burnie to new inner-city locations, with state-of-the-art teaching and research facilities.

The proponent’s business case states that the Program has a net present value (NPV) of $483 million over 30 years and a benefit-cost ratio (BCR) of 2.41, using a real discount rate of 7% and P90 capital costs. While there are some risks to achieving the social and economic outcomes of the Program, Infrastructure Australia is confident the project would generate benefits in excess of costs. There is substantial strategic merit in improving educational participation, which is often linked with improved living standards and higher levels of productivity.
2. Strategic context

Tasmania’s economic and social development has been challenged on several levels:

- Economic growth in Tasmania is generally below the national average, with most of the economic activity in the state centred in Hobart
- Labour market outcomes sit well below the national average, with the share of the working age population that actively participates in the labour market being 4% lower than the national average, and unemployment 0.7% higher than the national average in 2018
- Productivity in the Tasmanian economy is significantly lower than the national average, falling to a rate approaching zero growth over the three years to 2017.

Some of the ongoing factors that have led to these outcomes include:

- Educational outcomes that are significantly poorer in Tasmania relative to the rest of the country. Educational attainment is particularly low in the north of the State, with just 20.6% of those aged 21 to 64 in Launceston and the north-east, and 19.7% in the west and north-west, holding at least a bachelor degree (as detailed in the 2016 census).
- Weak population growth, low interstate migration and an ageing population that will slow the expansion of the workforce, impacting on the state’s long-term growth. This will particularly impact regional areas such as Ulverstone, Devonport and Burnie in the north of the state which have declining population growth.
- The level of capital investment in Tasmania being significantly lower than the Australian average.

However, there is an opportunity to improve social and economic outcomes for many of the residents in Tasmania. We recognise the substantial strategic merit of the Program in supporting the Tasmanian Government’s focus on improving educational attainment and maximising economic growth through strategic investments, development and land use. The Program also aligns to Australian Government policy to integrate higher education into early state planning for city growth.

The relocation and redevelopment of the university’s main Launceston campus to Inveresk is the centrepiece of the Launceston City Deal. This is an agreement between the Australian Government, Tasmanian Government and City of Launceston to facilitate investment, economic growth and liveability in Launceston. The participating governments have agreed to leverage the relocation of the Launceston campus to revitalise Launceston and grow the city’s economy.

3. Problem description

The existing university campuses at Launceston and Burnie are nearing or beyond their usable lives, poorly located for students and staff, and limit the university’s capacity to offer modern and attractive courses for students.

The Launceston campus is located five kilometres north of the city centre at Newnham, with bus services running to the campus approximately every 15 minutes. Most campus buildings are 40 to 50 years old, and while they have been upgraded over time, they do not offer the right rooms and facilities for modern teaching methods. The buildings are also expensive to operate, have poor energy efficiency and outdated information and communication technology equipment.

The Burnie campus at Mooreville Road is likewise located away from the city centre and has older facilities that limit the courses that can be delivered. Inflexible teaching spaces mean the campus is at capacity at least three days a week, despite student enrolments declining and students spending much less time at the campus compared with the university’s other locations.

Between 2013 and 2018, total Tasmanian student enrolments at the Launceston campus fell from 4,860 to 3,900, or about a 4% reduction per year. Over the same period at Burnie, Tasmanian student enrolments fell from 1,050 to 780, or about a 6% reduction per year.

Tasmania has historically performed well below the national average for students completing Year 12, leading to low tertiary attainment levels. The proposed relocation of the campuses and new course offerings represent a significant opportunity to improve these outcomes to meet the skills and education required by employers.
4. Proposal

The University of Tasmania recognises that significant change is required to its delivery offerings and operating model in the north and north-west of the State. The Program aims to increase higher education attainment through more attractive and relevant courses, delivered in more vibrant, accessible and flexible campuses. This demand for tertiary education at the university, as measured by student enrolment estimates, underpins the Program.

The Program incorporates three key projects:

- The delivery of new types of degrees and courses, including associate degrees, bachelor degrees, and short courses, which better meet the needs of employers, students and workforce development
- A new inner-city campus at Inveresk in Launceston with state-of-the-art teaching and research facilities
- A new inner-city campus at West Park in Burnie with state-of-the-art teaching and research facilities

Specifically, the Program would:

- Increase capacity to teach more students in the northern and north-west regions in associate and bachelor degrees
- Deliver technology-enhanced learning environments to attract additional students
- Invest in science and research by developing the Launceston Institute for Applied Science and Design
- Provide modern, world-class teaching, learning and research facilities in Launceston and Burnie
- Secure the future of research activities for the university in northern Tasmania
- Invest in infrastructure in Launceston, including a footbridge connecting Inveresk and the Launceston CBD
- Support entrepreneurship, start-ups, and industry supply chain spin-offs through innovation centre space and industry co-location
- Facilitate closer integration and co-location with TasTAFE, supporting streamlined participation in and pathways to higher education.

The course offerings will be designed to be more relevant, accessible and attractive to students by supporting key existing industry clusters and responding to the social, economic and technical needs of communities.

The university and TasTAFE have announced a partnership to help people combine academic and vocational learning, with a focus on lifelong learning. The university is working closely with TasTAFE to streamline higher education and explore options to co-deliver courses. This industry partnership will improve the education opportunities available to Tasmanians and narrow the gap between school and higher education.

5. Options identification and assessment

The proponent considered a range of infrastructure options in the preliminary option analysis to address the identified problems and create opportunities for northern Tasmania. These options include relocating and developing new campuses at Inveresk and West Park (the ‘relocation case’), and refurbishing Newnham and Mooreville Road campuses (the ‘refurbishment case’). The proponent identified a reasonable range of options, but could have also considered non-infrastructure options to address the problem. However, we understand that the university is delivering a number of programs to encourage enrolments at the university, which would complement the project.

The proponent assessed each option in a multi-criteria analysis (MCA) against the following measures:

- **Social and economic**: The ability to improve educational aspiration, educational attainment, and generate sustainable economic growth for Tasmania.
- **Operational**: The ability to create sufficient modern and fit-for-purpose spaces to accommodate students and offer new courses
- **Urban activation**: The ability to revitalise Launceston and Burnie city centres and generate agglomeration economies
- **Financial**: The ability to support and attract funding from all levels of government.
The scoring process for the MCA used only qualitative analysis. Infrastructure Australia’s Assessment Framework recommends the use of quantitative analysis to shortlist options. We also recommend aligning MCA measures to the expected costs and benefits of the project. For instance, the MCA could have considered the whole-of-life costs for each option as an assessment criterion, rather than its ability to attract government funding.

Nevertheless, the evidence in the business case supports the proponent’s decision to take the two best-performing options from the MCA – the relocation case and the refurbishment case – to the economic evaluation. These options were assessed in the economic evaluation against a ‘do-minimum’ base case scenario where the existing campuses are maintained, but not refurbished. In this scenario, student enrolments at both campuses were expected to continue falling.

6. Economic, social and environmental evaluation

The proponent’s economic evaluation of the preferred project (the relocation option) states a BCR of 2.41 and an NPV of $483 million over 30 years, using a 7% real discount rate and a P90 cost estimate.

The economic appraisal of the refurbishment option found that the costs of the refurbishment case significantly outweighed its benefits, resulting in a negative NPV. The proponent found that it would cost more to repair, refurbish and maintain the existing campuses compared with constructing new facilities in greenfield locations. This is driven by the poor condition, and larger but less efficient footprint of the existing campuses.

For both options, the proponent measured a range of benefits for new and existing students, university staff, the Australian Government and the university itself. The proponent has modelled student demand and provided Infrastructure Australia with detailed evidence to support the modelling assumptions. Our evaluation found that the proponent’s cost-benefit analysis is consistent with Infrastructure Australia’s Assessment Framework.

The largest estimated benefit from the project is an increase in the lifetime earnings for new students who would not have otherwise obtained higher education. This benefit represents the higher lifetime earnings and employability for Tasmanian, interstate and international students who remain in Australia and only obtain higher education as a direct result of the improved facilities and new campus locations.

The economic evaluation has not quantified the potential benefits to existing students and staff from improved university facilities and course offerings under the project case. As a consequence, potential benefits such as improved retention for existing students and staff have not been captured in the economic appraisal. This would increase the stated benefits of the project.

On the other hand, there are some limitations in the analysis that could overstate some of the Program benefits:

- **Student enrolment projections:** While the proponent has provided us with strong evidence to support the student demand projections in the business case, there is a risk that the demand forecasts may be overly optimistic given Tasmanian, interstate and international enrolments have declined in both Launceston and Burnie over recent years.

- **Increase in lifetime earnings from higher education qualification:** The business case assumed higher lifetime earnings for new students using a national wage. While many students will move to other states after completing their degree, many of the new courses offered (particularly Associate Degrees) will cater specifically for employer needs in Tasmania, where average wages are lower.

- **Attrition rate of new students:** The proponent assumed that the attrition rate (the proportion of students leaving their degrees before completion) for new students would match current University of Tasmania graduation rates. There is the potential that new students who would not have otherwise studied may have a higher dropout rate than current students.

While there is uncertainty on the number of new students who might be attracted into university education, and how this impacts on their future earnings, the Program’s benefits are higher than its costs under a wide range of assumptions. On this basis, Infrastructure Australia is confident that the Program would provide overall economic benefit to Australia and is strategically important in developing northern Tasmania.
## Benefits and costs breakdown

<table>
<thead>
<tr>
<th>Proponent’s stated benefits and costs</th>
<th>Present value ($m, 2018) @ 7% real discount rate</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New student net benefits</td>
<td>$517</td>
<td>62%</td>
</tr>
<tr>
<td>Short course benefits</td>
<td>$12</td>
<td>1%</td>
</tr>
<tr>
<td>Net travel cost savings</td>
<td>$9</td>
<td>1%</td>
</tr>
<tr>
<td>International and short course fees</td>
<td>$18</td>
<td>2%</td>
</tr>
<tr>
<td>Car park revenue¹</td>
<td>$6</td>
<td>1%</td>
</tr>
<tr>
<td>Value of vacated land</td>
<td>$17</td>
<td>2%</td>
</tr>
<tr>
<td>Building residual value</td>
<td>$12</td>
<td>1%</td>
</tr>
<tr>
<td>Government surplus²</td>
<td>$236</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Total Benefits³</strong></td>
<td>$826</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development costs – including planning, capital, land and program costs (P90)</td>
<td>$242</td>
<td>71%</td>
</tr>
<tr>
<td>Ongoing costs – including repairs, maintenance and lifecycle costs</td>
<td>$101</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Total Costs³</strong></td>
<td>$343</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Core results

| Net benefits - net present value (NPV)⁴ | $483 | n/a |
| Benefit–cost ratio (BCR)⁵               | 2.41 | n/a |

**Source:** Proponent’s Business Case

**Notes:**

1. Car park revenue is the expected increase in revenue from staff car parking at Inveresk versus Newnham.
2. Government surplus is the net benefit to government of increased taxes, as a result of higher lifetime earnings from new students.
3. Totals may not sum due to rounding.
4. The net present value is calculated as the present value of total benefits less the present value of total costs.
5. The benefit cost ratio is calculated as the present value of total benefits divided by the present value of total costs.

The proponent has prepared detailed development and ongoing cost estimates for the ‘do-minimum’ base case and relocation case, and engaged a quantity surveyor to develop the capital cost estimate for the project based on preliminary designs and functional requirements for the facility. This cost has been peer reviewed and has been completed in line with industry standards.

### Capital costs and funding

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total capital cost (P90, nominal, undiscounted)</td>
<td>$300 million</td>
</tr>
<tr>
<td>Proponent’s proposed Australian Government funding contribution</td>
<td>$150 million</td>
</tr>
<tr>
<td>Other funding (source / amount / cash flow) (nominal, undiscounted)</td>
<td>$75 million from the Tasmanian Government and $75 million from the University of Tasmania</td>
</tr>
</tbody>
</table>
7. Deliverability

The Program is still in development, with the university yet to finalise the detailed design of its campuses and at the early stages of selecting a procurement model. However, the university can draw on its previous experience in successfully relocating facilities from its Sandy Bay campus in Hobart to the CBD, such as the Medical and Health Science facilities.

Governance and procurement

The university has dedicated governance and project management resources in place to manage the Program. The business case states that the university will establish both a steering committee and project control groups for each campus project. The steering committee is a high-level project governance group responsible for ensuring each part of the program achieves its strategic objectives, while the control groups make more detailed decisions and recommendations on user requirements, building standards and more.

Key milestones for the Program have been formalised in the grant deeds with the Australian Government and Tasmanian Government. In addition, key activities and milestones have been identified and communicated to internal and external stakeholders in line with the university's strategic priorities and community expectations.

At the time of this evaluation, the proponent intended to assess a range of procurement models for the detailed design and construction of each campus with internal stakeholders and inputs from external sources. This would be tested through market engagement and potentially an Expression of Interest and/or Request for Tenders as appropriate. Following this assessment, the university will determine the preferred procurement approach.

While there is some risk from the business case not selecting a procurement model, the university has significant experience in delivering similar projects. There are also established cost benchmarks for the construction of university buildings, and the university has estimated capital costs for the Program using probabilistic modelling.

Program risks and post completion reviews

The proponent has conducted a risk assessment, which identified 21 risks and mitigation strategies. Each risk was assessed for inherent risk and rated against its likelihood and consequence levels. The risks identified as having the highest risk rating include:

- Forecast student numbers are not met, impacting on the viability of the northern campuses
- The project experiences delays relating to the planning and approvals process
- The construction of the new campuses is not delivered within agreed budget and timeframe
- Constructed buildings are not fit-for-purpose
- A changing policy landscape on higher education limits the project outcomes (for example, government decisions on capping university places)
- Research themes identified do not attract sufficient industry engagement.

The proponent has developed mitigation and monitoring strategies for each risk. This includes flooding as a potential risk for the proposed campus at Inveresk in Launceston. The proponent is designing the campus buildings for future flood risks based on external specialist advice. This includes modelling for flood risks at 2090, which is over and above the Building Code of Australia requirements of 2050 modelling, and taking into account climate change risk. The buildings will be designed with higher ground floors, and no habitable spaces within the 2090 flood modelling levels. This is to ensure the buildings are flood resilient in design and material selection.

There are also external macroeconomic factors which may impact on student demand, such as changing industry requirements, workforce participation and unemployment. While the university may be able to scale its workforce in response to some of these challenges, they are mostly beyond the control of the university and remain a risk to the Program achieving its desired outcomes.

A benefits realisation plan has been developed for the project, which includes monitoring of actual benefits against estimated benefits. While key metrics such as student enrolment and research funding can easily be measured, it can be difficult to validate the base case assumptions in the business case, for example, the extent to which student enrolment would continue to fall without the project. Nevertheless, Infrastructure Australia encourages the proponent to undertake and publicly release a full Post Completion Review to assess the extent to which expected project benefits and costs have been realised. This will help to inform future tertiary education business cases.