

Business case evaluation summary

Edith Cowan University: Creative Industries, Business and Technology Campus

Location

Perth, Western Australia

Geography

Fast-growing Cities

Category

Social Infrastructure

Capital cost

\$695 million (base estimate)

Indicative timeframe

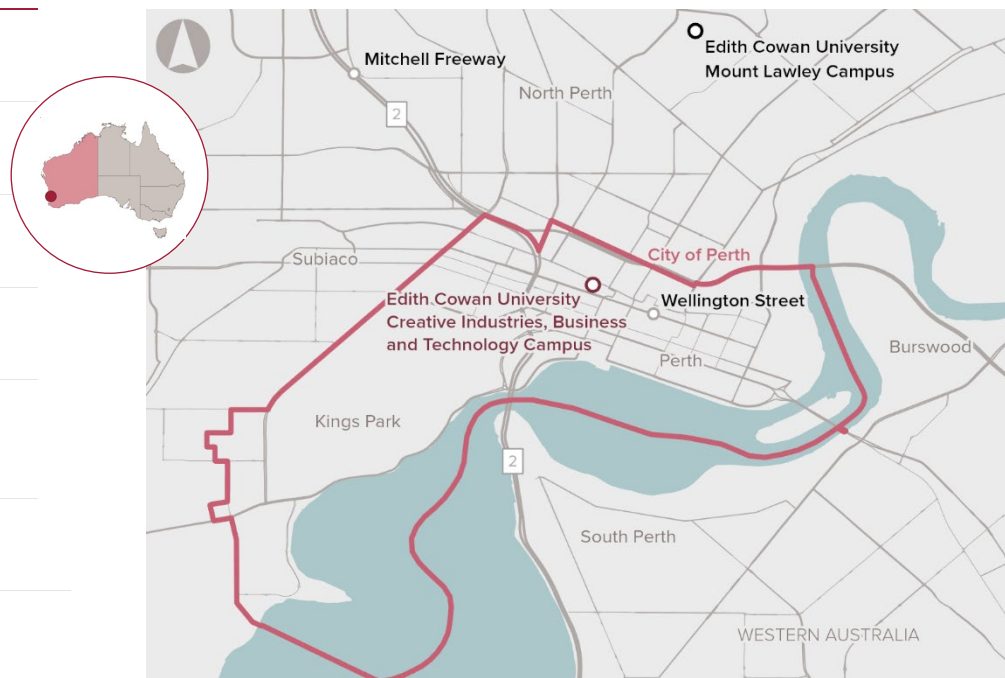
Construction Start: 2022
Project completion by: 2024

Proponent

Edith Cowan University

Evaluation date

31 August 2021



1. Evaluation Summary

The Edith Cowan University (ECU): Creative Industries, Business and Technology Campus (ECU City Campus) project is a key component of the Perth City Deal. We evaluated the business case at the request of the Department of Infrastructure, Transport, Regional Development and Communications. Due to the proposal's Australian Government funding commitment, it has not been considered for inclusion on the *Infrastructure Priority List*.

The proposal is intended to attract university students and staff to live, study and work in the central business district (CBD), supporting broader Perth City Deal objectives to raise the CBD's vibrancy and amenity, foster a strong community and encourage investment. Developed by the Australian and Western Australian Governments, the City of Perth and partners such as Edith Cowan University, the City Deal aims to help Perth recover from the impacts of COVID-19 and help support its long-term prosperity.

The Perth CBD's January 2021 office vacancy rates of 20% were the highest amongst Australian capital cities. This is part of a longer-term trend, with vacancy rates steadily increasing over the past decade, peaking above 21% in 2017. This underutilisation prevents the CBD from reaching its potential, affecting its amenity and vibrancy. COVID-19 has further exacerbated these issues. In addition to addressing this problem, the proposal may allow the ECU to improve student amenity and improve linkages with the wider community and industry.

The proponent's business case reports a net present value (NPV) of \$969 million, with a benefit-cost ratio (BCR) of 2.5. Our evaluation found that the benefits quantified in the proponent's economic analysis do not directly correlate with the objectives of the Perth City Deal. International student benefits, which includes a small component related to CBD expenditures, make up 97% of stated benefits. We consider these benefits to be over-estimated, posing a risk to the realisation of the project's benefits. On the other hand, we recognise the proposal's potential to provide place-making and city-shaping benefits, and inclusion of these in the economic appraisal would have strengthened the case for the proposal. Further, capital costs for the project are high-level estimates due to the early stage of design and there is a high risk that they may increase.

Overall, given the potentially overstated international student benefits, non-quantified benefits associated with realising the objectives of the Perth City Deal, and the early-stage cost estimates, we cannot be confident that the project benefits will outweigh the estimated costs.

We support the proponent's proposed delivery and risk management approach, although it is at an early stage of development. We consider the proposed governance arrangements to be appropriate to managing project risks and project delivery.

2. Context

In September 2020, the Australian and Western Australian Governments together with the City of Perth announced the Perth City Deal, which focuses on:

- Creating jobs and supporting private investment in the CBD, particularly in areas that will support future economic growth
- Enabling an energised and vibrant city centre that attracts residents and visitors and demonstrates the best in inner-city living
- Building a strong community that is inclusive, safe, sustainable and liveable.

As part of the Perth City Deal, all Western Australian public universities were invited to submit expressions of interest in establishing CBD-based campuses.

ECU submitted a proposal for the development of a new campus in the Perth CBD. ECU is the second largest university in Perth, with over 31,000 student enrolments across 300 courses, and almost 2,000 staff. It has three campuses in Western Australia, with two metropolitan campuses located in the Perth suburbs of Mount Lawley and Joondalup, and a regional campus in Bunbury.

The ECU City Campus will allow the closure of the existing campus in the Perth suburb of Mount Lawley, approximately 4 kilometres north of the CBD.

ECU inherited the legacy Mount Lawley campus during its formation as part of the amalgamation of teacher training colleges in 1982. It is set on approximately 18.3 hectares providing 20 university buildings and 16 buildings comprising ECU Village student accommodation. The campus is home to the Western Australian Academy of Performing Arts (WAAPA), the School of Arts and Humanities (excluding psychology and social science programs), the School of Education, Kurongkurl Katitjin (ECU's Centre for Indigenous Australian Education and Research School), student accommodation (ECU Village), university services and retail outlets. The Mount Lawley campus is serviced by bus routes from the Perth CBD and Morley bus station, with the nearest train station located approximately 2.5 kilometres away.

With the establishment of the ECU City Campus as a key component of the Perth City Deal, the university operations located in the two existing Perth campuses will be redistributed between the Joondalup campus and the new campus. The Perth City Deal will also deliver:

- Investment in university city campuses (the Murdoch University's Vertical Inner City Campus and Curtin University's Historical Heart Cluster)
- Investment in Perth's cultural attractions, including the Perth Cultural Centre, the Perth Concert Hall and the WACA
- Investment in community consultation and engagement, feasibility studies and preliminary design work for the Perth Aboriginal Cultural Centre
- The CBD Transport Plan, to improve active and public transport accessibility and safety.

The proposed site for the ECU City Campus is located at Perth City Link. Perth City Link, previously a network of bus and train connections, is being redeveloped by DevelopmentWA into a new destination with housing, shops, restaurants and offices, supporting the growth and maturing of Perth as an enjoyable and safe place for people. The site is located adjacent to Yagan Square and close to the Perth Cultural Centre and business and industry.

3. Problem description

The Perth CBD is currently underperforming, with an office vacancy rate that is more than double the national average and was the highest of any Australian capital city in January 2021. While the COVID-19 crisis contributed to the increase in vacancy from 18.4% in July 2020 to 20% in January 2021, the underlying trend predates the crisis, with vacancies having peaked above 21% in 2017. This underutilisation of properties prevents the Perth CBD from reaching its potential, affecting the city's amenity and vibrancy. COVID-19 has further exacerbated these issues.

Access between the Perth CBD, the Joondalup Campus and the Mount Lawley campus is constrained. Although the Mount Lawley campus is only 4 kilometres from the CBD and 28 kilometres from the Joondalup campus, the proponent argues that current public transport options provide limited access between the two campuses and the CBD. Around 75% of staff and 40% of students drive to the Mount Lawley campus, a mode share which is higher than the Joondalup campus, contributing to road network congestion. In addition to the transport network impacts, the locations limit the ability of ECU to develop linkages with businesses and cultural facilities as a result of its primarily residential surroundings and poor public transport options.

The existing facilities at the Mount Lawley campus are ageing and over time may limit programs which can be offered. The Mount Lawley campus was developed between the early 1970s and the early 2000s. A recent audit of the campus found that buildings are generally in fair to good condition, and to prolong the life of the campus buildings would require a capital expenditure of approximately \$36 million over 10 years in addition to ongoing maintenance. Over time, it is likely that additional spending would be required to ensure the campus is fit to deliver ECU's current and future programs and support research.

ECU expects the relocation of activities to a new campus in the CBD would allow for the realisation of opportunities for closer collaboration with businesses, which could benefit researchers. Proximity to industry in the CBD could also benefit students by creating opportunities to combine work experience with studying as well as providing greater recreational amenities and housing options. The ECU City Campus could also offer the opportunity for WAAPA and Creative Industries students to gain experience with the many cultural entities situated in the Perth Cultural Centre Precinct and surrounds. This could also benefit the wider population by addressing unmet cultural demand in the Perth CBD by increasing access to the wide range of cultural events and shows held by WAAPA and Kurongkurl Katitjin.

4. Options identification and assessment

ECU considered a wide range of capital and non-capital options to address the identified problems. The range of options for the business case were developed as part of a logic mapping exercise. This identified 15 options, including a business-as-usual base case. These options were qualitatively ranked against a range of university and Perth-specific problems and opportunities with the three highest rankings being taken forward for further analysis along with the base case:

- New campus with WAAPA in CBD
- New campus with WAAPA not in CBD
- Rationalise to Joondalup campus.

A key constraint of this options identification and assessment process is that the problems and opportunities for ranking the options was primarily completed from the perspective of the ECU. The proponent concurrently reviewed public facing benefits and opportunities alongside ECU centred criteria such as the university's financial stability and strategic goals. While these ECU focused criteria are vital to decision-making by the university, they are not necessarily well aligned to the objectives of the Perth City Deal to support Perth's recovery from COVID-19 or position the Perth CBD for the future. ECU reviewed how identified options aligned with major Commonwealth and state policy, however the broader welfare impacts on Australian society were not explicitly quantified. Using only criteria which reflect social welfare considerations (such as focusing on the broader problems for the Perth CBD) would likely result in some other options being carried forward for consideration.

From the three options taken forward for further consideration, 10 sub-options were developed to reflect a wide range of possible configurations. This enables a range of combinations, allowing for ECU locations to be distributed throughout Perth, and different uses of the Mount Lawley campus, including remaining as is, partial redevelopment or a complete redevelopment. The options were assessed by weighted multi-criteria analysis, with criteria weighted to represent their relative importance given the objectives and priorities of the project and stakeholders. The criteria were:

- Vibrancy – the ability of the option to attract students to enhance the vibrancy and activate the CBD, by attracting students, including international students, to live in the Perth CBD
- ECU's profile and the profile of higher education – how the option improves the university's profile and encourages collaboration with other education providers, business and industry
- ECU's financial sustainability – the impact on ECU's financial position into the future
- Infrastructure investments – the ability of options to leverage previous public and private infrastructure investments in the CBD, including METRONET, Yagan Square, Perth Cultural Centre and student accommodation, and supporting Perth and Peel @ 3.5million
- Capital cost effectiveness.

The criteria used for the multi-criteria analysis were a mixture of outcomes specific to ECU, and the broader community. While the ECU-specific outcomes are relevant to the university's decisions, it has the potential to discount options which maximise social welfare for Perth more broadly. This process identified the two highest rating options for further analysis using cost-benefit analysis:

- Establish a Creative Industries, Business and Technology City Campus within the Perth CBD; close and redevelop Mount Lawley campus (the preferred option)
- Establish a WAAPA, WA Screen Academy and Broadcasting facility within the CBD; lease fit-for-purpose space in the CBD for Business and Technology; utilise existing facilities at Joondalup campus for the School of Education; close and redevelop Mount Lawley campus.

5. Proposal

The Creative Industries, Business and Technology Campus proposal is for the development of a purpose-built university campus in the Perth CBD and closure of the Mount Lawley campus. ECU's Perth operations would then be redistributed between the Joondalup campus and the new campus. The proposed facility would have a gross floor area of approximately 68,000 square metres and be located next to Yagan Square in the heart of Perth City Link. The project includes:

- ECU vacating the Mount Lawley campus, with closure and redevelopment by the WA Government
- ECU developing a new purpose-built Creative Industries, Business and Technology Campus in the Perth CBD
- Relocating WAAPA and the School of Arts and Humanities (excluding Psychology and social science programs) from Mount Lawley to the new city campus
- Relocating the School of Education from Mount Lawley to existing repurposed facilities at the Joondalup campus
- Relocating the School of Business and Law to the city campus
- Offering the School of Science's technology and cyber security programs at the new city campus.

The ECU City Campus proposal will enable the redevelopment of the Mount Lawley campus. The Mount Lawley campus is located on Crown land and the WA Government has begun planning for the site to be repurposed and redeveloped.

6. Strategic fit

The project is intended to support the priorities of the Australian Government and WA Government to support investment and economic activity in the Perth CBD. The proponent's preferred option for establishing an ECU City Campus is a key component of the Perth City Deal.

The Perth City Deal was developed to help Perth recover from the significant impacts of COVID-19 and help support its long-term prosperity. The preferred option is intended to support the Perth City Deal outcomes by creating employment in the CBD during construction and into the future by relocating ECU activities. It is intended to help enable an energised and vibrant city centre by attracting staff and students to the CBD, which will support demand for other investments, such as Yagan Square, METRONET, Perth Cultural Centre and Strategic Metropolitan Activity Centres.

The co-location of WAAPA adjacent to Perth's existing arts and culture precinct has the potential to provide more opportunities for visitors to engage with arts and culture. The new campus will increase access to cultural content with over 300 public performances annually, visual arts exhibitions and a celebration of Indigenous performance and culture.

The closure of the Mount Lawley campus also provides the State Government with urban renewal opportunities at the vacated site. This includes the option to redevelop the site for commercial or residential purposes or to expand the adjacent Mount Lawley Senior High, which was committed to as part of the Perth City Deal. This will support urban consolidation consistent with the WA Government's Perth and Peel @ 3.5 Million urban growth strategy.

The preferred option is also an opportunity to expand the higher education and international student sector in WA. This is consistent with the Australian Government's National Strategy for International Education 2025 and the Western Australian Government's Diversify WA policy.

7. Societal Impact (social, economic, and environmental value)

The proponent's business case states that the net present value (NPV) of the project is estimated to be \$969 million with a benefit-cost ratio (BCR) of 2.5, using a 7% real discount rate and a base level capital estimate¹, excluding the Mount Lawley campus land value, CBD land value uplift and any other wider economic benefits. We have considered the sensitivity of the appraisal to the discount rate and note that:

- Using a 4% discount rate results in a NPV of \$2,996 million and a BCR of 4.3
- Using a 10% discount rate results in a NPV of \$233 million and a BCR of 1.4.

The majority of project benefits are those involving international students, which account for 97% of total benefits. This comprises the remuneration of international students that remain in WA post-graduation (89%), course fees paid by international students (4%), spending of international students (3%), and tourism revenue associated with visitors of international students (1%).

The remaining 3% of benefits comprise of domestic student benefits (1%), transport benefits (2%) and student amenity benefits (<1%).

Our review identified the following elements of the analysis in the submission that may **overstate** the proposal's expected benefits:

- The project's expected benefits as reported by the proponent are driven by the forecast increase in international student enrolments attributed to the project:
 - International student enrolments are reported to be 19% higher than the base case from 2034, representing an additional 1,860 enrolments in 2034 and 3,441 in 2065. This is significantly higher than domestic student enrolments, which are expected to be 0.15% higher in 2030, with an additional 47 students in 2034 and 91 in 2065
 - The economic analysis assumes that international student enrolments are significantly more responsive to changes in amenity and location than domestic

¹ A base level capital estimate is one that has not been adjusted for a contingency allowance. This is not consistent with the guidance set out in the Infrastructure Australia Assessment Framework, which includes a requirement for the reporting of a capital cost estimate that includes a contingency allowance produced using the probabilistic method (P50 or P90 cost estimate).

students. There is no evidence to explain how enrolment demand is related to the ECU City Campus proposal or why the demand increase for international students is so much larger than domestic students. This is inconsistent with what we have observed in the economic analysis of other similar projects and therefore poses a risk to the realisation of the benefits identified in the business case

- The remuneration of international students that remain in Australia post-graduation is the main benefit of the project and appears to be significantly overstated:
 - The Productivity Commission (2016) estimated the benefit of migration to Australia as the fiscal impact of migration (tax receipts less public costs such as welfare and health care). Using this fiscal benefit to measure the economic benefit of attracting international students who remain after graduation would result in a benefit around one eighth of that reported in the business case. However, it is noted that the Productivity Commission report outlines that the fiscal benefit is only one component of the social and economic impact of migration.
 - The approach adopted in this business case appears to attribute the entire lifetime earnings of international students as a benefit of the project.

We note there are risks around the international student projections in the business case depending on the length of the COVID-19 pandemic and whether it leaves a permanent impact on demand.

There are also elements of the cost-benefit analysis which are likely to **understate** benefits:

- There are limited reported estimates of project benefits relating to support for investment and economic activity in the Perth CBD, which is a key objective of the Perth City Deal and could result in significant additional benefits to those quantified in the economic assessment
- Domestic students are expected to account for 50% to 60% of City Campus students but capture less than 3% of the project's benefit, which is atypical of this type of project
- The student amenity benefit is estimated based on the Student Services and Amenities Fee, which is not a measure of social welfare, and may not be an appropriate measure of the actual amenity provided. This approach may understate the amenity benefit
- Course fees paid by international students are understated in the economic analysis, as they have been adjusted to account for part of the university's costs of providing education services to those students. However, as the costs of providing education appear to be measured directly in the business case, this approach may double count operating costs
- The Mount Lawley Campus land value is not included in the core results. This is due to uncertainty of the potential redevelopment options which are still being considered. This measures the opportunity cost of the site and should be included
- The cost-benefit analysis does not include a residual value of the new campus.

Overall, due to potentially overstated international student benefits, associated uncertainty caused by COVID-19 and the non-quantified benefits associated with realising the objectives of the Perth City Deal, we cannot be confident that the benefits of the project will exceed its costs. This is further emphasised by the early stage of project design and the risk that the high-level costs currently estimated may increase. We recognise the proposal's alignment with government policies, including the Perth City Deal, and its potential to address the problems and opportunities that are key to the Perth CBD's recovery and future. Inclusion of these in the proponent's economic appraisal would have strengthened the case for the proposal.

The following table presents a breakdown of the benefits and costs stated in the business case.

Benefits and costs breakdown

Proponent's stated benefits and costs	Present value (\$m,2021) @ 7% real discount rate	% of total
Benefits		
Domestic student benefits	\$15.3	1%
International student benefits	\$1,566.6	97%
Student amenity benefits	\$5.0	0%
Transport benefits	\$35.7	2%
Total Benefits¹	\$1,622.5	(A) 100%
Capital costs	\$405.4	62%
Lifecycle costs	\$39.4	6%
Operating costs	\$208.5	32%
Total Costs¹	\$653.3	(B) 100%
Net benefits - Net present value (NPV)²	\$969.2	n/a
Benefit-cost ratio (BCR)³	2.5	n/a

Source: Proponent's business case

(1) Totals may not sum due to rounding.

(2) The net present value is calculated as the present value of total benefits less the present value of total costs (A – B).

(3) The benefit-cost ratio is calculated as the present value of total benefits divided by the present value of total costs (A ÷ B).

The proponent's reported capital costs and funding is presented in the following table.

Capital costs and funding	
Total capital cost	\$695 million (base estimate, nominal, undiscounted)
Australian Government funding (committed)	\$245 million
WA Government funding (committed)	\$100 million (cash) \$50 million (land)
Edith Cowan University (committed)	\$300 million

Capital costs for the project are high-level estimates, estimated using benchmarked costs for university campuses, and are not probabilistically adjusted. Recognising the project is at an early stage of development, these costs are expected to be refined. Project costs exceeding the approved budget is noted as a high risk in the project's preliminary risk register.

8. Deliverability

The project is at an early stage of development, with project design works expected to continue over 2021 and 2022, and construction forecast to commence around the middle of 2022. The project architects and engineers were appointed in June 2021, and procurement for the Contractor for Early Works and Main Works ongoing at the time of evaluation. Consequently, limited information on the project's deliverability was provided in the business case submitted.

A detailed procurement options analysis was undertaken as part of the business case development and project planning process. A range of procurement options were initially considered, with the Early Contractor Involvement (ECI), Managing Contractor (MC) and hybrid ECI and MC models taken forward for further analysis following a preliminary review. A procurement options workshop was conducted with key ECU staff and advisors with knowledge of the project and assessed the procurement models against a range of criteria, including cost, ability to deliver the required scope and quality, and current market conditions. The hybrid model was selected as the preferred option,

as it allows the benefits of ECI and MC in a hybrid approach, allows for a lump sum price while ensuring contractor involvement benefits the design process for constructability, allows ECU to retain design control while still transferring design risk to the contractor and meets the required timelines.

Risk management for the project was undertaken using ECU's Integrated Risk Management Guidelines to identify, assess and treat the project's risks.

Risk reviews will form part of the ongoing project management activities. Risks rated "Substantial" and above will be reported on a monthly basis to the Program Steering Committee. The Program Steering Committee has been established to provide strategic leadership and direction, overseeing all program deliverables including scope, schedule, budget and risk. The Committee will be responsible for providing guidance and/or acceptance of risk response plans. Risks will also be incorporated into ECU's risk management processes.

ECU has completed a preliminary risk analysis. The high rated risks for the project are:

- Securing required planning and regulatory approvals in a timely manner
- Funding (reduced government funding commitments, or ECU being unable to deliver on funding)
- Material delays in project planning and development; delivery and commissioning
- Project cost exceeding approved budget
- Failure to effectively manage project changes, including scope and budget variations
- Inability to secure appropriately qualified resources to support project delivery.

The risks are identified at a very high level, which is consistent with the early stage of the project's development, with project designs not yet developed. The governance arrangements put in place for the project appear to be appropriate to manage risks as the project progresses.

In developing the project, Infrastructure Australia **recommends** that the proponent focus on:

- Opportunities to support and integrate with other Perth City Deal projects:
 - The ECU City Campus is one of many Perth City Deal projects that are part of a broader program to support Perth's COVID-19 recovery and long term prosperity, safety sustainability, and liveability. The project's contribution to the Perth City Deal objectives can be maximised by realising opportunities to collaborate with and support other projects in this program
- Understanding what drives student enrolment decisions:
 - A key risk for the project is that it does not result in the projected increase in student enrolments and particularly international student enrolments, and there is little information provided around the factors which drive student enrolment decisions for the project.
 - The proponent can mitigate this risk by focusing on understanding what students value (i.e. specific amenity values) and incorporating this into the project design.
- Risks around international student enrolments:
 - COVID-19 has disrupted international student enrolments. How long these direct impacts last and if there will be persistent impacts on enrolments is highly uncertain. The proponent should recognise these risks and seek to diversify the project benefits to ensure that it can deliver a social return
- Maximising benefits to domestic students:
 - The benefits measured in the ECU City Campus are concentrated for international students. The project should seek to understand how benefits for domestic students and interactions between the university and surrounding businesses, cultural institutions and general public can be maximised, which will help diversify the benefits of the project.

The proponent has developed a post completion review plan, which will see project outcomes being measured one year following completion. A range of metrics have been proposed, including project costs, student enrolments, the extent to which the project supports the local workforce and the extent to which the project helps develop an Education and Civic Precinct in the Perth CBD.

It is expected that a Perth City Deal Implementation Plan will be developed jointly by the Australian Government, the WA Government and the City of Perth to guide the delivery of the Perth City Deal projects, setting out key milestones for projects, timeframes and responsibilities. The post completion review will be further developed to be aligned with the Perth City Deal Implementation Plan reporting requirements and measures of success.

Consideration of COVID-19

The COVID-19 pandemic has significantly affected the use of infrastructure. Infrastructure Australia has been working collaboratively with the Australian Government to provide advice on a staged response for managing, and recovering from, the impacts of the COVID-19 pandemic.

One critical element of our advice is to maintain a pipeline of nationally significant infrastructure investments. Nationally significant infrastructure projects are long-term investments, typically considering a 30-year view of the project's social, environmental and economic impacts. In undertaking this evaluation, Infrastructure Australia continues to take a long-term view and has also considered the sensitivity of key planning assumptions using the best data available to us.

As noted in the 2019 Australian Infrastructure Audit, we must continue to evolve the way we plan for Australia's infrastructure to embrace uncertainty. There are still many uncertainties regarding the long-term impact of the COVID-19 pandemic on infrastructure use.

We will continue to collaborate with industry, the community and governments at all levels to understand the impacts of the COVID-19 pandemic on infrastructure decisions in Australia.