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Universities should invest now in campus infrastructure

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Australian universities are facing a cashflow crisis. The decline in international student commencements and the reduction in government funding resulting from the Job-Ready Graduates package will result in shortfalls this year, next year and possibly beyond.

According to Universities Australia, more than 22,000 jobs will be lost, equivalent to half the number of people who work in the coal industry, according to Australian Bureau of Statistics figures.

Shockingly, more than 17,000 jobs have already gone.

The Morrison government's policy settings seem designed to punish staff and students for universities engaging with China and developing the market for international students, which is what governments of both persuasions encouraged them to do.

Australia needs strong universities. They carry out most of the research required to grow and diversify our economy plus they teach students the skills to do the jobs that a modern economy demands. They underpin sovereign industry capabilities that the pandemic has shown are vital.

Most universities have responded to looming crisis by slashing capital expenditure and attempting to preserve jobs.

This is understandable but wrong. Without continuing capital expenditure, universities will

emerge from the pandemic weaker and unable to benefit from the eventual upturn. Just as the British parliament started to debate post-war planning in February 1941, during the darkest days of World War II, Australian universities should be planning for their post-pandemic future now.

Despite a building boom at some universities, ARINA studies show that about half of science, technology, engineering and maths laboratory accommodation throughout Australia is in buildings over 40 years old.

These buildings have exceeded their economic life. This is a drag on universities for two reasons; old buildings are expensive to operate and they do not effectively support contemporary research.

It is not possible to continue to attract top students or academics to a university if research and teaching facilities are second rate. Without talent, for which there is an international market, the performance and ranking of Australian universities is at risk.

Cashflow is not the whole story of a university's finances. A university's balance sheet consists of assets and liabilities. One of those liabilities is the often very substantial maintenance deficit for existing buildings.

Unfortunately, Australian accounting standards underestimate the maintenance deficit for laboratory buildings, requiring only that buildings are returned to reasonable compliance with current codes and standards rather than being fit for purpose. The real maintenance deficit is often never reported to university governing bodies, their councils or senates.

Repairing or replacing end-of-life buildings will not materially alter the balance sheet and, if done correctly, could strengthen it.

There are several significant and short to medium-term issues for STEM laboratory buildings that cannot be resolved in existing buildings:

● The provision of low-vibration, low-field spaces for sensitive instruments, nanotechnology, long-path laser experimentation and quantum research.

● Large-scale Superlab teaching suites to improve student experience and safety, increase the flexibility of teaching laboratories and provide the opportunity to reduce operational costs.

● Complying large-scale wet laboratory space capacity to facilitate high-end research in emerging fields, such as bio-engineering, synthetic biology, nano materials, advanced molecular biology and the development of pharmaceuticals.

Although the capital cost of a new STEM building is substantial, there are several offsetting savings including:

● Reduction in the maintenance deficit of buildings containing existing dilapidated laboratories.

● Rationalisation of the existing suite of analytical equipment will slash maintenance costs, reduce staff time spent in routine maintenance and reduce the amount of operational and capital expenditure required per unit of output.

● Increase in student attraction and retention.

● Reduction in operational costs.

For several reasons borrowing or selling assets to support a needed capital project is perfectly rational in the current environment.

● It will not materially change the balance sheet if borrowings are used to build assets or reduce liabilities.

● Interest rates are historically low and likely to stay low for a considerable period.

● Current construction costs are probably 25 to 30 per cent below the peak of the next cycle in real terms.

A project to deliver a new building typically takes the sector between three and five years to complete with the planning phase lasting around a year to 18 months. Continuing to invest in the planning and delivery phases of projects will ensure the sector emerges from the pandemic in a stronger position than it went in, capable of attracting the best talent available.

Cutting off planning and investment will cause a serious hiatus in the delivery of necessary projects, plus it will increase the overall funding requirement because projected increases in building prices will substantially exceed the cost of borrowing.

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