



30 June 2020

Office of the
Vice-Chancellor and President

Committee Secretary
Economics and Governance Committee
Parliament House
George Street
BRISBANE QLD 2000

Email: egc@parliament.qld.gov.au

Dear Committee Secretary,

While the terms of reference of this inquiry specifically focus on the Queensland Government's economic response only, the State Government should be congratulated on their timely and appropriate action to stop the spread of the COVID-19 virus in Queensland.

The State Government's concern for the health and well-being of people within Queensland has been echoed in the financial support packages provided, particularly those pertaining to the education and public health sectors.

The initial \$2 million allocated in February for *Study Queensland* to boost the marketing of Queensland as a study destination was an appropriate response to the border restrictions then imposed on visitors from China. However, the situation deteriorated so rapidly that full border closures to non-residents/citizens were imposed on March 20, thereby rendering this marketing initiative ineffectual. It is my hope that this funding may still assist in rebuilding the international profile of Queensland as a welcoming and high-quality study destination as soon as borders re-open.

The University of Queensland (UQ) welcomed the swift creation of the *Advance Queensland Industry Research Fellowship (COVID-19)* grant round, which opened in early April and provided early and mid-career researcher fellowships with an emphasis on projects delivering COVID-19 related impact and outcomes in short timeframes. These grants reflected the State Government's recognition of the vital role of research and innovative thinking in responding to the pandemic.

More significantly, the \$10 million *Advance Queensland* investment in UQ's vaccine research, announced on March 22, showed a broader vision for Queensland as an innovation hub. Not only did this raise the profile of Queensland as a leading medical and health research centre, but also modelled the effectiveness of collaborative funding with a further \$3 million contributed by the Federal Government and \$3.5 million through The Paul Ramsay Foundation. Such an investment in research and innovation benefits UQ and partners such as The Peter Doherty Institute and CSIRO and if this investment delivers a successful vaccine, it will be the key to reviving the State's tourism and agricultural industries by enabling safe international travel to resume.

The State Government's provision of \$2.2 million to support international students through the establishment of the Online Student Hub from April 22, and the further investment of \$10 million through *Study Queensland* in partnership with Lilly Luhrmann, GIVIT and the Queensland Government Care Army helped more than 20,000 international students in Queensland. On May 25 the State Government contribution was extended to \$15 million via the Queensland International Student Crisis Assistance Package. These initiatives demonstrated that Queensland extended care and support for international students at a time of great uncertainty.

As the active cases of COVID-19 have diminished, The University of Queensland supports the Government's current approach of a controlled easing of restrictions to reinvigorate the Queensland economy. This approach represents a balanced response to the current advice from the health and economic experts and is vital for the sectors in which UQ is a key contributor, particularly education, health, and agriculture.

In the immediate future, it is critical to our economy to re-open some international travel. UQ would welcome State Government support for the proposed secure corridors for international students. Such a pilot would re-open our state to international travel in a limited manner and would allow International students, as long-term visitors to our state, to return to our cities and campuses as early as July/August 2020. UQ would of course work with the State Government to support our students while they quarantine on arrival.

By enabling these students to return in a controlled manner, the State will benefit from the reinjection of income into a range of sectors, particularly education, housing and tourism. It is worth noting here that an independent report in 2017 by 'London Economics' identified a total economic contribution of over \$1 million for every 3 international students enrolled at UQ.¹ Analysis conducted by the International Education Association of Australia based on figures from Tourism Research Australia further identified that 39% of the total spend by international visitors in 2019 was by visitors whose primary reason for being in Australia was education.²

Moreover, given the Chinese Government's recent warnings regarding the treatment of Chinese students in Australia, a cooperative approach across Government and the higher education sector to manage the safe return of international students will assist in re-establishing a perception that Queensland is a welcoming and safe destination for all visitors from China and Asia more generally.

The return of international students is also critical to the success of The University of Queensland, an institution with an aggregate economic impact that was estimated to be around \$9,605 million in 2017.³ In that year UQ spent \$1,614 million across various sectors of the economy, including the direct employment of 7,175 staff. COVID-19 has had a significant impact on the University's budget. Over the period 2020 to 2023, UQ had scheduled \$1.6 billion of capital works. However, with the uncertainty due to the pandemic, the University has only committed to \$434 million at this stage. \$495 million capital works originally planned for 2020 has had to be cut to \$286 million, with a further \$125 million committed in 2021. These cuts mean a reduction in jobs across a range of construction industries and highlight the broader impact UQ has on the Queensland economy.

It is a truism that crises present opportunities and so it is with COVID-19. The State Government's \$10 million investment for the rapid development of a COVID-19 vaccine could provide a springboard for establishing a wider boost to the State economy.

The UQ research team, under the joint leadership of Professor Paul Young, Associate Professor Keith Chappell, Dr Dan Watterson and Professor Trent Munro, are the only scientists in the world using a unique molecular clamp approach to trigger a protective immune response. They are one of only six groups worldwide to be funded through the Coalition for Epidemic Preparedness Innovations (CEPI) which focuses on ensuring equitable access to research outcomes. The work of these UQ researchers is a genuinely humanitarian endeavour and human trials are to begin in July. An agreement has also been established with Australian company CSL for the manufacture and distribution of the vaccine. Their success demonstrates Queensland's ability to meet major global challenges with agility and innovation.

The international exposure of this research creates an important and unprecedented opportunity **to establish a National Vaccine Institute here in Queensland.**

¹ Halterbeck, M., Williams, R., & Conion, G. (2017). *The economic impact of The University of Queensland*. London: London Economics.

² Godfrey, A., & Hall, R. (2020, June 3). *Edu-tourism and the impact of international students*. Retrieved from International Education Association of Australia: https://www.ieaa.org.au/blog/edu-tourism-and-the-impact-of-international-students?utm_campaign=website&utm_source=sendgrid.com&utm_medium=email

³ Halterbeck, M., Williams, R., & Conion, G. (2017).

Such an initiative would build on significant past successes. The HPV vaccine, known commercially as Gardasil, was of course also developed by a UQ research team headed by Professor Ian Frazer AC, and the continuing development of this research is now on track to eliminate cervical cancer in Australia by 2035.⁴

More recently, Vaxxus, a company founded by UQ's technology transfer group Uniquist, has partnered with global biotechnology company Merck (MSD) and the pharmaceutical manufacturer Harro Höfliger in two separate agreements related to the company's needle-free vaccine delivery technology. This innovation could significantly reduce problems associated with vaccine storage and transportation and result in more patient doses from limited quantities of vaccine.

Beyond demonstrating the impact of UQ's ground-breaking research, these innovations also present the opportunity for export and the creation of high-paying jobs in the biomanufacturing industry here in Queensland. Establishing a National Vaccine Institute as we emerge from the COVID-19 pandemic would create a lasting economic benefit for the State.

UQ already has a strong record in attracting research investment. In the 2019 Higher Education Research Data Collection (HERDC), UQ attracted research income in excess of \$452 million. Significantly, UQ is also highly successful in collaborating with industry to accelerate the translation of research into outcomes. In May, as part of the Federal Government's Australian Research Council Linkage Grants, UQ was awarded \$12.8 million across 26 research projects - the largest investment for any Australian university. Ranging from pineapple production through to next generation battery technology, the impact of these grants will provide economic benefits across diverse sectors of the Queensland economy. Importantly, partner contributions (including both cash and in-kind) took the overall total investment to \$36.9 million.

The UQ Solar Farm at Warwick also demonstrates the potential of the renewable energy sector to reshape the Queensland economy. Queensland's abundant solar capacity and burgeoning hydrogen industry both provide opportunities for research and development, the generation of power to support domestic manufacturing, and to diversify regional economies and exports in the future.

UQ is keen to continue this success and ***Amplify Queensland*** through Flagship Research Programs in industries where Queensland is already at the forefront such as One Health, Tourism, Advanced biomanufacturing, and protected cropping through emerging value propositions for the Agri-food sector. Akin to the national Cooperative Research Centres (CRCs), such Flagship Research programs focus on industry outcomes and alliances for investment with Government to stimulate industry investment in Queensland. For example, UQ research has led to BioClay technology which provides biological crop protection with reduced chemical use and will ensure primary producers across Queensland can increase production and still maintain the output of safe, clean food for domestic and export markets.

The focus on research impact at UQ aligns with the industry hub approach in the draft report prepared for the National COVID-19 Coordination Commission by the Manufacturing Task force. This report identifies Food and AgriTech, and Healthcare and Biotechnology as key industries for future economic development and emphasises the reskilling of those displaced by the pandemic, the importance of diversification to ensure national economic resilience, and the need to support high value skills.⁵

Queensland could capitalise on redirected investment funding aimed at transitioning the economy to one in which innovation underpins manufacturing and commercial success. With State Government support, the establishment of a **National Therapeutics Facility** as a public/private partnership could harness UQ's capabilities in Molecular & Cell Biology, Immunology, Infectious Diseases, Advanced Bio-manufacturing and Drug Discovery.

⁴ Hall, M., Simms, K., Lew, J.-B., Smith, M., Brotherton, J., Saville, M., . . . Canfell, K. (2018). The projected timeframe until cervical cancer elimination in Australia: a modelling study. *The Lancet Public Health*, [https://doi.org/10.1016/S2468-2667\(18\)30183-X](https://doi.org/10.1016/S2468-2667(18)30183-X).

⁵ Manufacturing Taskforce, National Covid-19 Coordination Commission. (2020, May 21). *Leaked Covid-19 commission report calls for Australian taxpayers to underwrite gas industry expansion*. Retrieved from The Guardian newspaper: <https://www.theguardian.com/environment/2020/may/21/leaked-covid-19-commission-report-calls-for-australian-taxpayers-to-underwrite-gas-industry-expansion>

Such an initiative, particularly coupled with a **National Vaccine Institute**, could accelerate the creation of a new Advanced Bio-manufacturing Industry and build self-reliance, create high value jobs, and trigger economic development through exports.

The development of any truly innovative idea, such as a vaccine for cancer or indeed for COVID-19, begins with high quality education from early childhood onwards. Investing in Queensland youth to equip them with creative problem-solving and critical thinking skills is a necessary precursor for a future where start-ups and innovation will provide the drive for economic growth. Establishing Queensland as an innovation hub requires Queenslanders with the education, global perspectives, and the infrastructure to pursue excellence.

Working together with Government and industry partners, The University of Queensland is keen to support the rejuvenation of the Queensland economy as we move beyond COVID-19. If we can grasp this as a chance to propel an **Amplify Queensland** agenda, our state could become a national exemplar of economic recovery through innovation.

Yours sincerely

A handwritten signature in black ink, consisting of several fluid, overlapping strokes that form a cursive-like shape.

Professor Peter Høj AC
Vice-Chancellor and President

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