



THE UNIVERSITY OF
SYDNEY

Dr Michael Spence AC

Vice-Chancellor and Principal

24 September 2019

Senator James Paterson
Chair, Senate Finance and Public Administration Legislation Committee
Senate
Parliament House ACT 2600

By email: fpa.sen@aph.gov.au

Dear Senator,

Emergency Response Fund Bill 2019 and Emergency Response Fund (Consequential Amendments) Bill 2019

The University of Sydney wishes to place on record its strong support for the Government's proposed emergency response and recovery strategy but its strong opposition to the passage of both the *Emergency Response Fund Bill 2019* and the *Emergency Response Fund (Consequential Amendments) Bill 2019* (the Bills).

If passed by the Senate, the Bills will close the Education Investment Fund (EIF) and redirect the balance of \$3.9 billion to the establishment of the Emergency Response Fund.

While the University strongly supports any Government response to aid in the recovery from natural disasters, we believe that abolishing the EIF to help fund the Emergency Response Fund is short sighted and a false economy.

Combined with other major recent cuts to funding for higher education and research, abolishing the EIF will have long-term implications for the quality, economic impact and international competitiveness of Australia's higher education and research systems.

Closing the EIF will also have profound implications for our future national capacity to attract global talent and to create the new knowledge industries and high-value jobs that will be vital if our economy is to remain strong in the face of globalisation and advances in technology.

The University is very fortunate to have received funding from the EIF for two transformational education and research infrastructure projects:

- [Charles Perkins Centre](#), which is the home of our Centre for Obesity, Diabetes and Cardiovascular Disease
- [Sydney Nanoscience Hub](#), which houses the University of Sydney Nano Institute and major nodes of two national research infrastructure organisations - Australian National Fabrication Facility (ANFF) and Microscopy Australia.

We firmly believe the existence of the EIF was a critical catalyst for both the conceptualisation and realisation of these two major projects. The possibility of EIF funding served to stimulate us, and many other universities, to develop concrete plans for ground-breaking educational and research infrastructure projects that simply would not have been conceived of without it.

In the case of our **Charles Perkins Centre** - obesity, diabetes and cardiovascular disease are the leading causes of death and disability in Australia, accounting for 40 per cent of deaths and morbidity. The escalation of the cost of providing care for people afflicted by these diseases is threatening the sustainability of Australia's health system and placing ever-growing pressure on the Commonwealth budget.

In 2009, we received \$95 million from the EIF towards a total construction cost of \$385 million to create a building capable of supporting a multi-disciplinary strategy to addressing these great health challenges. The resulting purpose-built facility, the Charles Perkins Centre, opened in 2014 at our Camperdown campus, adjacent to Royal Prince Alfred Hospital. It provides state-of-the-art facilities and technology for more than 1,000 researchers from a wide range of disciplines, in addition to treating 10,000 patients, educating 20,000 students and hosting 350 events in 2018. We have also been able to support more than 18 new professors, attracted by the Centre's vision and facilities and funded in large part through philanthropy. They in turn have brought grant income, PhD students and attracted international early career researchers.

The Charles Perkins Centre infrastructure project, which was made possible by the EIF, created 330 direct jobs and had an estimated economic spill-over impact of over \$1 billion during its construction phase. Securing EIF funding for the Centre has enabled us to pursue innovative approaches that are highly attractive to donors and industry partners, with \$108 million in donations achieved to date for Centre initiatives. A longstanding partnership with PwC - starting with the 2015 'Weighing the Cost of Obesity' study, through the [Collective for Action on Obesity](#) (now counting over 300 members) - contributed expert advice to the Commonwealth-funded National Obesity Summit last year as part of the process to develop the National Obesity Strategy. The Centre also partners with Qantas to collaborate on research and education programs to reshape the long-haul travel experience.¹

In the case of the **Sydney Nanoscience Hub** - nanoscience and nanotechnology are changing the world as we know it. Our aim is to ensure that Australia is at the forefront of these advances in fields including quantum technologies, nanophotonics, communications technology, space technologies and medical devices. Funding of \$40 million from the EIF enabled us to establish in Sydney a research facility (at a total cost of around \$150 million) that is unsurpassed in the Southern Hemisphere in terms of technical performance. Without the EIF support, we would not have been able to create a facility of such scale and quality. It has enabled us to bring together experts from across the disciplines (and around the world) to develop new nanoscale technologies for social and economic benefit and to train the next generations of scientists and engineers with skills and research expertise in nanoscience.

The Sydney Nanoscience Hub and the University of Sydney Nano Institute opened in 2016. Together, they are significantly expanding our collaborations with high-tech businesses in Australia and internationally. For example, our quantum computing partnership with Microsoft represents the largest single contribution to quantum computing ever in Australia, with the [Quantum Nanoscience Laboratory](#) joining only two other global hubs (in the Netherlands and Denmark) that received substantial investment from Microsoft.²

¹ <https://www.https://www.qantasnewsroom.com.au/media-releases/new-qantas-research-reveals-what-customers-really-want-on-ultra-long-haul-flights/>

² <http://sydney.edu.au/news-opinion/news/2017/07/25/microsoft-and-university-of-sydney-forge-quantum-partnership.html>

Another major collaboration is with the Royal Australian Air Force, which has led to the establishment of the [Jericho Smart Sensing Laboratory](#), where researchers will develop world-leading nanoscale sensors that can assess the physical, chemical, biological, acoustic and electromagnetic environment. Other important research collaborations include partnerships with Lockheed Martin, the US Army Research Laboratory as well as with the Defence Science and Technology Group. Finally, the facility has supported the foundation of one of the most successful start-up companies in the emerging global quantum economy, [Q-Ctrl](#). This high-tech start-up employs 25 people in Australia, has plans to double that number in the next few years and recently raised \$22 million from a global syndicate of investors.

Once the EIF is cut, no other university-dedicated Commonwealth infrastructure fund will remain. If this occurs, the prospect of transformational education and research projects such as the **Charles Perkins Centre** and **Sydney Nanoscience Hub** getting off the ground in the future will be greatly diminished. There will be significant flow-on consequences for the competitiveness of our higher education and research institutions and for future economic activity and the creation of high-value industries and jobs for future generations of Australians.

For these reasons, before committee members decide their position on these Bills, we urge them to visit facilities made possible by the EIF to see first-hand how the projects are delivering profound benefits for students, researchers, industry and local economies. We would certainly welcome committee members for site visits to our two EIF-supported facilities.

Yours sincerely,

Michael Spence