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Committee Secretariat
Senate Standing Committee on Finance and Public Administration
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Senate Committee's Inquiry on the Emergency Response Fund Bill 2019

Dear Committee Secretary

The University of Western Australia appreciates the opportunity to provide evidence to the Senate Committee's Inquiry on the Emergency Response Fund Bill 2019.

It is clear that there is prudence in setting aside a reserve fund for future emergency response needs, particularly as climate change projections suggest that Australians will be subjected to more severe and more frequent extreme weather events in the medium future.

Nevertheless, WA university research has significantly benefitted from the EIF with at least 16 facilities and projects linking industry with the State's premier research hubs. This investment provides national dividends.

The facilities funded by the EIF, under the National Collaborative Research Infrastructure Scheme (NCRIS), include the National Centre for Synchrotron Science, the Integrated Marine Observing System, Astronomy Australia, the Terrestrial Ecosystem Research Network, Bioplatforms Australia, ANSTO Nuclear Science Facilities, the Australian Research and Data Commons (ARDC), AuScope, and the National Imaging Facility. Every investment in these facilities comes with a guaranteed matching amount at least double to the Federal contribution. Without these critical Federal investments the momentum in science and industry innovation in Australia may be compromised.

As one example, the National Imaging Facility provides state of the art imaging of human patients, animals, plants and materials for the Australian research community. The current research infrastructure funding round will enable WA to expand our facilities to include research-dedicated magnetic resonance imaging (MRI) and positron emission tomography (PET) scanners; adding to our existing live cell/tissue/animal and materials imaging equipment. The Western Australian Health Translation Network (WAHTN) has identified human research imaging as a priority area to support relevant industrial and translational research. Further, with improved access to PET imaging and an increasing scope of novel PET tracers there will be significant expansion in the breadth of projects and involved investigators. PET is a powerful translational research tool that has a direct impact on patient care, in particular in precision medicine and in the growing field of theranostics. The clinical applications of current projects are broad and span Oncology, Cardiology, Neurology and Rheumatology. This infrastructure will support the burgeoning WA based clinical trials research industry, and make participation in upcoming national trials feasible and affordable, with the capacity to support and augment multi-centre clinical trials conducted from platforms in other States, as well as participation in pharmaceutical industry-led clinical trials. Further, this infrastructure will enable a platform for evaluation of locally-developed drugs and radiopharmaceuticals and support of trials for locally-developed pharmaceuticals.

Another EIF funded facility, the Population Health Research Network (PHRN) project which is headquartered in Perth and with a national network of nodes, is creating and developing research infrastructure in the population health space, including information and communication technology, research equipment, data management and custodianship, analytical capacity and project management. This national research infrastructure area supports the linkage of health and other human services data in privacy-preserving ways and makes the linked data available for approved research. The linked data is used for a wide range of health research including disease prevalence, clinical trials, treatment quality and health outcomes. It is also used for other human services research including investigating factors contributing to good early childhood development and education outcomes in at-risk groups. PHRN provides researchers in Australia with the capability to link de-identified data from a diverse and rich range of health data sets, across sectors and jurisdictions. This allows researchers to carry out nationally and internationally significant population-level research, to improve health and wellbeing and to enhance the effectiveness and efficiency of health services. As a result of PHRN activities, WA now has internationally recognised skills in management of personal health information, as well as systems and processes for data linkage and management of linked data. These are vital to a range of health and other human services research in the state and nation.

The Indian Ocean Marine Research Centre (IOMRC) in Perth, funded by the EIF, brings the major marine science research and management institutes of Australia (AIMS and CSIRO) together with world-leading researchers at UWA and the state DPIRD, to provide the hub of research excellence on the Indian Ocean Rim. This includes industry partners, including the energy sector, fisheries and other extractive industries, who find a synergistic space to work with faculty and early career scholars in addressing some of the largest challenges in Oceans science. The IOMRC consortium provides the focus point for the Blue Economy CRC for the western two-thirds of the continent, which will see significant investment in renewable energy research. In addition, Integrated Marine Observing System capabilities located in WA and linked to the national IMOS network are also located in the IOMRC building. Australia has increasing issues and opportunities around food production, maritime security, the vulnerability of small island states and overall need to engage in the rapid economic expansion of the Indian Ocean Rim, for which the IOMRC can be pivotal. These capabilities unquestionably leverage the investment in IOMRC through the EIF and show Australia to be a leader and good neighbour in the Indian Ocean Rim.

Research infrastructure related to human health research will deliver tangible benefits to patients in Australia while innovation in marine systems relating to the blue economy, energy extraction, food security and oceans health stand to benefit the peoples of Australia and the Indian Ocean rim. State-of-the-art research infrastructure is not only essential for research excellence and outcomes which will benefit the citizens of Australia by advances in science and technology underpinning economic growth, but will also enable Australia to continue to attract the brightest minds (both students and researchers) from around the world.

Ongoing investment into research infrastructure is vital to the future prosperity and welfare of Australia and her citizens. We respectfully suggest that the Commonwealth should continue to support the growth of science and industry innovation in Australia, and specifically in Western Australia, including through strategic co-investment in research infrastructure.

Yours sincerely

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