



The University of Newcastle

Response to *Medicare Levy Amendment (National Disability Insurance Scheme Funding) Bill 2017* and 10 related bills.

Executive Summary

The University of Newcastle (UON) welcomes the opportunity to provide a submission to the Economics Legislation Committee on the *Medicare Levy Amendment (National Disability Insurance Scheme Funding) Bill 2017* and 10 related bills. This submission focuses on the *Nation-building Funds Repeal (National Disability Insurance Scheme Funding) Bill 2017*, which would have the effect of removing the Education Investment Fund.

UON strongly supports Universities Australia's submission in relation to the impact on Australia's competitiveness and productivity of removing the last Federal funding pool available to universities to support investment in infrastructure. Removing EIF will result in a further loss of \$3.7 billion from university funding, significantly reducing the capacity of universities to invest in educational and research facilities for students and the community at a time when the higher education sector has already contributed more than its fair share to budget repair.

In addition, UON highlights the importance of transformative infrastructure funding in enabling the provision of world-class educational and research facilities for regional campuses and communities, particularly in regions undergoing major economic transition.

The two University of Newcastle projects funded by EIF since the fund's inception – the NeW Space education precinct in the Newcastle CBD (\$30 million) and the Newcastle Institute for Energy and Resources (\$30 million) - have substantially enhanced the University's education, research and innovation capacity for the benefit of the Newcastle and Hunter communities they serve.

These developments are projected to deliver significant economic benefits and employment opportunities to our regions – NeW Space alone will deliver \$1.3 billion in economic benefits to the Hunter Region from 2013-2022, including \$200 million in construction and a further \$134 million estimated to flow annually from the emergence of the Newcastle CBD as a vibrant student hub.

Similarly, the Newcastle Institute for Energy and Resources – one of the University's two flagship research institutes - has become a national and state hub for collaborative, industry-engaged energy research into the generation and utilisation of energy, as well as a platform for social research into balanced land use and the interrelationships of industry and community in the resource sector. This success is enabled by the unique, purpose built facilities supported by EIF, including a 3.8-hectare site including extensive mineral, chemical and related technical laboratories, offices and five industrial-scale pilot plant workshops.

A national strategic education infrastructure fund is critical to help fund future projects with similar substantial benefits students and communities. In this context, UON strongly supports the retention of EIF and urges the Committee not to support the passage of the Bill.

The University of Newcastle (UON) makes the following recommendation:

That the Committee does not support the passage of the [Nation-building Funds Repeal \(National Disability Insurance Scheme Funding\) Bill 2017](#), which provides for the effective abolition of the Education Investment Fund (EIF) by repealing its establishing legislation.



About the University of Newcastle

The University of Newcastle (UON) is a research-intensive university ranked in the top 1% of global universities with a mission of delivering equity and excellence to its cities and regions. With more than 37,000 students studying at campuses in the Hunter, Central Coast and Mid North Coast of NSW, the University also delivers programs across regional New South Wales, via a Sydney presence, and at its Singapore campus. The University also supports wider communities through a range of online postgraduate and enabling education offerings.

Founded in 1965, the University is committed to excellence and equity. During its first half-century, the University has developed into a leading centre for research and education in engineering, health and medicine, and energy and resources, with emerging strengths in a range of areas including social sciences and creative disciplines.

UON is ranked in the top quartile in Australia for research income and the top 8 in Australia for research rated at well above world standard by the 2015 Excellence in Research for Australia evaluation. The University is also in the top 10 in Australia for the quality of its teaching as measured by the Student Experience Survey.

The communities that UON serves in the Hunter, Central Coast and Mid North Coast are characterised by significant disadvantage and lower levels of educational attainment than metropolitan counterparts. Higher education attainment rates in regional Australia remain significantly below those of the metropolitan population, with rates of bachelor level attainment in Greater Sydney more than four times those in the Hunter Valley.

In 2015, 24.9 per cent of UON undergraduate enrolments were from low-SES backgrounds, the sixth largest proportion of low-SES students in an Australian university, and 52 per cent were first in their family to attend university. Indigenous students made up 3.6 per cent of enrolments, with the milestone of 1000 Indigenous students reached for the first time in 2016. Breaking cycles of disadvantage and creating intergenerational mobility is at the heart of UON's mission as an institution for its regions.

Infrastructure funding: A national challenge with a national solution

Peak national body Infrastructure Australia has highlighted the importance of strategic infrastructure investment to national productivity, as well as maintaining a high standard of living and securing the economic and social wellbeing of Australians¹.

High quality education and research infrastructure is critical to this, not only in supporting a world-class, technology-enabled educational experience for students but also in developing the strategic research facilities that enable the knowledge generation and innovation that supports a competitive and resilient national economy.

It has been acknowledged in numerous reports in Australia and overseas (eg Review of National Research Infrastructure 2015; Report of Higher Education Working Group 2015; UK Treasury Report on Science and Innovation²) that governments are best placed to provide the core investment capital required to

¹ Infrastructure Australia 2015, Australian Infrastructure Audit, our Infrastructure Challenges Report, Volume 1, Australian Government, Australia.

² Research Infrastructure Review Final Report September 2015; Higher Education Infrastructure Working Group Final Report 2015; HM Treasury 2014, Our plan for growth: science and innovation, report prepared by Department for Business, Innovation and Skills, United Kingdom.



establish and maintain strategic education and research infrastructure. This public investment role also has the benefit of acting as an important magnet for co-investment from industry, universities and philanthropy.

Successive governments have recognised this need and the Education Investment Fund (EIF) was established in 2009 with the intent ‘to build a modern, productive, internationally competitive Australian economy by supporting world-leading, strategically-focused infrastructure investments that would transform Australian tertiary education and research’³. Building on the previous Higher Education Endowment Fund, which was established by the Howard Government as a perpetual fund to support investment in university capital works and facilities, the EIF has been a progressive and highly effective mechanism for public investment in strategic education infrastructure.

Universities across Australia – including UON – have benefited from the public investment made through the EIF, which has allowed for the development of educational and research facilities that generate value for their communities. At the time of its proposed closure, the fund would have approximately \$3.8 billion remaining. No alternative or replacement scheme for higher education capital investment has been proposed, leaving universities without a dedicated source of funding for development or upgrade of education and research facilities.

The Report of the Higher Education Infrastructure Working Group (HEIWG)⁴, provided to the Government in 2015 and chaired by Phil Clark AO and Professor Denise Bradley AO, highlighted a number of risks associated with ageing infrastructure stock and a backlog of deferred maintenance within universities, exacerbated by policy instability around funding arrangements.

UON strongly supports the recommendations of the HEIWG that the government provide a stable funding, policy and regulatory environment and ‘develop a long term plan to provide adequate funding for transformative institutional research infrastructure and teaching facilities, with co-investment and collaboration as prerequisites’⁵.

A competitive higher education sector? The unintended impacts of higher education reform

Maintaining the competitiveness of Australia’s higher education sector – the third largest export sector and one of the most economically productive in the nation – is critical to ensuring its ongoing sustainability and contribution to the national economy. Students and staff expect high quality, contemporary facilities for learning, teaching and research that are technology-enabled and aligned to future workforce needs.

However, the capacity of universities to make sustainable investments in this infrastructure through re-investing surpluses delivered through sound financial performance is under pressure through proposed changes to university funding arrangements. As captured succinctly in the HEIWG Report:

The continuing ability to generate sound operating surpluses lies at the heart of universities’ capacity to make the infrastructure investments necessary to support high quality teaching, learning and research...Funding shocks that increase risk and erode university operating results

³ Department of Education and Training website, <https://www.education.gov.au/education-investment-fund>

⁴ Higher Education Infrastructure Working Group Final Report 2015.

⁵ Higher Education Infrastructure Working Group Final Report 2015, page xi.



and balance sheets will reduce self-financing capacity. That may lead to forced reliance on external capital sources if universities are to continue to make infrastructure investments.⁶

The higher education reforms currently before the Parliament – which include an efficiency dividend of 2.5 per cent, changes to the funding of enabling programs, and a significant level of uncertainty in relation to the introduction of so-called ‘performance-based funding’ for 7.5 per cent of universities’ Commonwealth Grant Scheme funding – will strain this institutional capacity considerably and place effective financial management at risk.

Without being able to generate strong operating surpluses to support essential infrastructure – and in the absence of federal education infrastructure programs should EIF be abolished - universities will be forced to make difficult decisions about the future of key programs, services and facilities for students, including the viability of regional campuses.

UON has estimated that the impact of the Government’s proposed efficiency dividend will conservatively be \$100 million over the next 10 years.

For UON, this \$100 million in direct cuts – coming on top of previous efficiency dividends and the ongoing issue of underinvestment in research - will place profound pressure on our capacity to continue to deliver world-class education, research and innovation to our regions. The further loss of \$3.7 billion in funding to the higher education sector through the abolition of the EIF compounds a problem that will have an escalating effect on regional communities.

Regional transformation and economic growth: investment in the future of regions

Regional universities face additional challenges to their metropolitan peers due to their geography, mission and demographics, whether delivery of education across multiple small regional campuses, reskilling regional workforces, or the need to invest in support for cohorts of students with significant economic and social disadvantage. These challenges were acknowledged in the Government’s own report on the costs of delivery of higher education, which highlighted that ‘teaching and scholarship costs are 17% higher for regional students’⁷ and noted that students from disadvantaged or low socio-economic backgrounds may entail additional support costs.

The Education Investment Fund responded to these challenges through the establishment of a \$500 million Regional Priorities Round of the Education Investment Fund in 2012, which was open to regional universities and vocational education providers and aimed to give students, staff and researchers in regional Australia access to world class teaching, training and research facilities. UON was successful in securing \$30 million from this scheme for its NeW Space facility.

Five years on from this scheme, the need to support educational infrastructure in regions has become, if anything, even more pressing. As regional economies across Australia transition away from traditional manufacturing and resources economies, it is more important than ever to establish the ecosystem and networks to support the new industries and collaborations that will shape the jobs of the future. PricewaterhouseCoopers estimated that an ecosystem based on innovation and digital technologies has

⁶ Higher Education Infrastructure Working Group Final Report 2015.

⁷ Deloitte Access Economics, Cost of delivery of higher education: Australian Government department of Education and Training, final report, December 2016.



the potential to increase Australia’s productivity and raise GDP by \$37 billion in 2024⁸. Longer term, the contribution to GDP could be as high as 3.5 per cent, or \$136 billion in 2034.

Universities such as UON play a critical role in the economic and social transformation of their regions – not only as educators of the future workforce and major employers but also drivers of the knowledge, innovation and entrepreneurial activities that support transition to new industries. As a research-intensive university located in Australia’s largest regional economy, UON acts as a point of convergence for the development of new industries and markets and a catalyst for change in its communities.

Independent modelling by the Hunter Research Foundation showed that UON is expected to contribute \$5.5 billion to the Hunter economy in the next decade. An additional \$1.3 billion is projected from activities on the Central Coast of NSW, including the Central Coast Medical School and Health and Medical Research Institute.

Transformative funding from the Education Investment Fund – in combination with co-investments from the NSW Government and the University – has played an important role in supporting world-class education and research infrastructure within UON’s regions, placing high-quality educational experiences within the reach of students from all backgrounds and experiences.

The two UON projects funded by the Education Investment Fund are illustrative examples of the benefits of public investment on regional economic development and industry engagement – two key aims of the EIF scheme.

NeW Space - \$30 million

Funded by \$30 million from the Education Investment Fund Regional Priorities Round as well as \$25 million in funding from the NSW Government and an investment of \$40 million from UON, NeW Space is a \$95 million landmark education precinct in the heart of Newcastle’s CBD that opened in July 2017.

Housing the University’s Faculty of Business and Law and School of Creative Industries and harnessing the latest in technology and innovation in teaching and learning, NeW Space is part of UON’s City campus, offering to deliver a world-class student experience across all faculties including social learning spaces, a digital library and information commons, collaborative learning and research spaces, and facilities for engagement with industry, business and the community.

An independent economic analysis by the Hunter Research Foundation found that NeW Space will deliver \$1.3 billion in economic benefits to the Hunter Region from 2013-2022, including \$200 million in construction to the regional economy. A further \$134 million is estimated to flow annually from the emergence of the Newcastle CBD as a vibrant student hub.

NeW Space has become the centrepiece of UON’s presence in the Newcastle CBD, anchoring a precinct that includes University House (creative industries), the Three 76 start-up and entrepreneurship space, a cultural precinct (Conservatorium and Watt Space Gallery) and an Innovation Hub, which is currently in development and will support industry and business engagement with UON researchers and students.

Infrastructure Australia has recognised the important role of university campuses in revitalising and stimulating cities, particularly those located in regions with lower levels of educational participation and higher levels of disadvantage⁹. It has also highlighted the importance of undertaking such

⁸ PriceWaterhouseCoopers, *Expanding Australia’s Economy: How digital can drive the change*, 2014.

⁹ Infrastructure Australia, *Infrastructure Australia approves Hobart STEM relocation*, 17 Feb 2017
http://infrastructureaustralia.gov.au/news-media/media-releases/2017/2017_02_17.asp



activities at a scale that attracts new industries to the CBD which could in turn support economic and population growth.

The strategic location of NeW Space, close to the Newcastle Law Courts, the Port of Newcastle, and the centre of business activity in the region, supports its role as a 'magnet' for talent, jobs and new industries, particularly in social innovation and areas of emerging employment.

Newcastle Institute for Energy and Resources - \$30 million

Founded at the University of Newcastle as a multidisciplinary model for transformational research in energy and resources, the Newcastle Institute for Energy and Resources (NIER) is a key part of the Hunter's industrial innovation story and a hub for energy innovation. NIER was established in 2010 at the University's Callaghan campus with \$30million federal funding through the Education Investment Fund (EIF) and \$2.2million supporting funding from the NSW government,

NIER addresses challenges of the rapidly emerging issues of resource sustainability, productivity and competitiveness associated with energy and resources infrastructure, and delivers competitive advantages in areas such as mineral processing and emissions reduction, balanced with future alternate energy generation, and provides a platform for social research into the impact of industry and community coexisting.

Investment from the EIF supported the development of NIER's research and innovation infrastructure, which includes unique, purpose built facilities on a 3.8-hectare site including extensive mineral, chemical and related technical laboratories, offices and five industrial-scale pilot plant workshops.

Since its inception, NIER has attracted almost \$100 million in research funding by NIER-affiliated and supported researchers, and supported cooperative occupation of the precinct by approximately 300 staff and students within over fifteen research groups. These include four Priority Research Centres, one ARC Industrial Transformation Hub, an International Centre and Global Innovation Chair (Balanced Land Use), a well-established, highly reputable commercial entity (TUNRA Bulk Solids), as well as the hosting of engaged industry partners.

NIER been a highly successful model for the University and for NSW, utilising the 'client relationship model' to garner industry engagement and building concentrated interdisciplinary research teams and infrastructure that enables translation of research projects through to industrial prototype and demonstration scale.

Funding the National Disability Insurance Scheme

Finally, UON notes the intent to transfer funds from the Education Investment Fund to support the implementation of the National Disability Insurance Scheme (NDIS) and to pay down government debt.

While UON strongly supports the NDIS as a transformative social reform that will have wide-ranging impacts on the lives of Australians with disabilities, it is a false economy to suggest that this outcome can only be achieved through a concurrent reduction in the capacity of Australian universities to provide education, research and innovation that supports the economic and social wellbeing of their communities.

UON supports the position of Universities Australia that, as an advanced economy, Australia has the ability to provide resources for both a comprehensive scheme to provide services and opportunities for those members of the community with disabilities, and infrastructure for research and teaching activities.



APPENDIX 1: EIF-FUNDED PROJECTS, UON



NeW Space - \$30m

NeW Space is a \$95 million landmark education precinct in the heart of Newcastle's CBD, harnessing the latest in technology and innovation in teaching and learning to deliver a world-class student experience.

Housing the University's Faculty of Business and Law and School of Creative Industries, NeW Space is part of UON's City campus, offering University-supported activities across all faculties including:

- business and law programs
- creative industries
- social learning spaces
- digital library and information commons
- collaborative learning and research spaces
- work integrated learning opportunities
- facilities for engagement with industry, business and the community.

Contemporary teaching spaces reflect new ways of learning that focus on collaboration and group work. Standard lecture theatres have been replaced with flexible working spaces and booth seating. The customised teaching spaces are located on the first three levels, with social spaces and facilities for engagement with industry, business and the community throughout the facility.

NeW Space is supported by Australian Government funding of \$30 million through the Education Investment Fund Regional Priorities Round, NSW Government funding of \$25 million, and \$40 million invested by the University.



Newcastle Institute for Energy and Resources (NIER) - \$30m

The objective of the NIER project has been to build and establish a world-class facility and to create a critical mass of leading researchers, across disciplines, The Institute undertakes innovation research for next generation energy and distribution solutions and minimising energy usage in the resources sector.

NIER comprises extensive mineral, chemical and related technical laboratories, offices, industrial- scale pilot plant workshops and research demonstration units. The project has also included design and construction of an additional state-of-the-art research building housing laboratories and office space.

The construction of this research infrastructure and subsequent capacity for industrial-scale research projects ensures NIER is well equipped to contribute to industrial transformation with research focused on high performance, low emission and innovative technologies critical for economic growth and environmental sustainability.

Key Achievements

- Professor Jameson revolutionised a mineral separation process first invented in 1905, to develop the Jameson Cell, a froth flotation device that has netted Australia more than \$36 billion in exports of fine coal and minerals.
- The Cell has also been used for industrial and environmental applications including extracting oil from tar sands in Canada, cleaning up industrial wastewaters in Newcastle and other locations in Australia, and removing blue-green algae from waterways in inland Australia.
- Professor Behdad Moghtaderi and his 30-strong research team are currently working on delivering safe, new methods of managing ventilation air methane (VAM) generated by underground coal mines.