GROWING ESTEEM 2014 A discussion paper







From the Vice-Chancellor

There is no destination for a university, no landing point. Our tasks repeat, as we offer knowledge, learning and engagement to each new generation. Mission is shaped by present circumstances but profoundly attached to a long tradition.

Over the past decade, the University of Melbourne has made choices about how best to serve its many communities. We have adopted a curriculum that stresses breadth of learning at undergraduate level, and a graduate approach to professional education. The institution has expanded dramatically its research reach, and given voice to engagement. It has deployed new technologies to speak with an international audience. Nearly half a million people around the globe have enrolled in online courses offered by Melbourne.

Growing Esteem 2014 invites students, staff and friends of the University to consider the options before the institution as we contemplate a world much altered by digital providers and global competition in higher education.

Your feedback will inform a new strategic plan, to be considered by the Council of the University later this year.

Choices explored in this paper build on the existing strategic direction of the University of Melbourne. They continue the endless journey, asserting once again the character of Melbourne as a public-spirited university, reinforcing the ambition to be among the finest universities in the world.

I hope you will accept the invitation to contribute to next steps for the University of Melbourne.

Glyn Davis
Vice-Chancellor

March 2014

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EXEGI MONUMENTUM

The Odes of Horace Book III, 30

Exegi monumentum aere perennius regalique situ pyramidum altius, quod non imber edax, non Aquilo inpotens possit diruere aut innumerabilis annorum series et fuga temporum. non omnis moriar multaque pars mei vitabit Libitinam: usque ego postera crescam laude recens, dum Capitolium scandet cum tacita virgine pontifex. dicar, qua violens obstrepit Aufidus et qua pauper aquae Daunus agrestium regnavit populorum, ex humili potens princeps Aeolium carmen ad Italos deduxisse modos. sume superbiam quaesitam meritis et mihi Delphica lauro cinge volens, Melpomene, comam.

THE POET'S MONUMENT

I have finished a monument more lasting than bronze, more lofty than the regal structure of the pyramids, one which neither corroding rain nor the ungovernable North Wind can ever destroy, nor the countless series of the years, nor the flight of time.

I shall not wholly die, and a large part of me will elude the Goddess of Death. I shall continue to grow, fresh with the praise of posterity, as long as the priest climbs the Capitol with the silent virgin. I shall be spoken of where the violent Aufidus thunders and where Daunus, short of water, ruled over a country people, as one who, rising from a lowly state to a position of power, was the first to bring Aeolian verse to the tunes of Italy.

Take the pride, Melpomene, that you have so well earned, and, if you would be so kind, surround my hair with Delphic bay.

From *Horace: Odes and Epodes*, Edited and translated by Niall Rudd (Harvard University Press 2004)

CHAPTER 1 OUR STRATEGIC CHOICES

1.1

Horace, our mission and the importance of humility

The University's motto, 'Postera crescam laude', often translated as 'I shall grow in the esteem of future generations', is taken from an ode of Horace, the Latin poet, who in around 23 BC prophesised his own fame would endure through his poetry. While Horace's words are not humble, his treatise proved correct. It is a reminder that a well-executed body of work can prevail for generations.

One hundred and sixty years since the University's founders adopted the motto, the prophecy of Melbourne's growth and esteem is being fulfilled. For a successful institution, however, there is the risk of hubris. Self-praise does not bring further accomplishment. The aim of this discussion paper is not to revisit things the University has done well, but to ask how it can continue to grow in esteem. The injunction to improve remains as ever the imperative.

In 2014, the University of Melbourne is a comprehensive, campus-based, research-intensive institution of more than 47,000 students, 9,000 staff engaged full and part-time, over 220,000 alumni internationally and an annual budget approaching \$2 billion. It is regularly ranked as Australia's leading research university and seeks to be numbered among the finest universities in the world.

Melbourne measures its success by the contribution it makes to each of the three tightly interwoven strands at the heart of a great university: research that addresses the grand challenges of our time; learning and teaching that uses the best pedagogy to ensure thoughtful and superbly prepared graduates; and deep engagement with the culture, society and economy of the communities it serves.

At the University of Melbourne, this mission is expressed as the 'Triple Helix' of research, learning and teaching and engagement. This description of Melbourne's aspirations was first articulated in the discussion paper *Growing Esteem*, published in 2005, and reaffirmed in *Growing Esteem 2010*. The Triple Helix remains the core organising principle of this latest consideration of University strategy, and an enduring commitment for the University of Melbourne.





Such a mission is both commonplace and distinctive. At some level, every university aspires to great research, brilliant teaching and a close conversation with its environment. Yet each university must choose a balance between these goals. Strategy is expressed through choices about where scarce research investment is placed, how the curriculum is organised and delivered, and who are the most appropriate partners beyond campus. The finest universities in the world may reach their position in different ways, but it takes careful choices and a consistent vision to join their ranks.

Growing Esteem 2014 looks at those decisions now required to ensure the University of Melbourne continues on a strong trajectory, in keeping with the decree of its motto. The available data confirms the University of Melbourne is performing well against most benchmarks. It has the highest national entry requirements, the best research performance, and a demonstrated capacity to contribute to national debate about ideas and policy. Yet the international environment changes rapidly, and there is no monopoly on strategic choices. Other Australian universities, and many in our broader region, have also used their opportunities. Research grants are keenly contested. The growth of online and private providers creates capable and innovative new entrants in a global market where student expectations are shifting. We feel the ungovernable North Wind at our shoulder.

To remain Australia's top university and to be among the finest universities in the world, all of Melbourne's activities must contribute to a self-reinforcing circle of excellence. Lifting research performance and offering an outstanding learning experience brings visibility, global esteem and higher international rankings. This in turn increases domestic and international student demand, gives us access to global academic talent, helps boost our resources (including growth of the endowment) and generates better research and learning outcomes, closing the loop.

Above all else, the circle of excellence highlights the interdependent nature of the University's core activities. High rankings follow, but the University's success rests fundamentally on its capacity to make an impact through its research, learning and teaching and engagement. It rests on the capacity to grow, with an appropriate measure of humility, in fulfilment of the hopes of those who established the University 160 years ago.

Growing Esteem – Achievements and next steps

The 2005 *Growing Esteem* strategy envisaged that by 2015 the University of Melbourne would be unambiguously the leading university in the nation, with world-renowned research, a distinctive and graduate-focused teaching profile, and a much strengthened sense of connection to its many communities.

The University has largely achieved these aims. Melbourne has affirmed its position as the number one university in Australia, and remains one of the fastest-rising research universities in the world's top 100, according to the Academic Ranking of World Universities (ARWU) Shanghai Jiao Tong University Index. It is counted by the Times Higher Education (THE) World University Rankings among the best 35 universities in the world.

A long legacy of excellence, together with a number of more recent strategic initiatives, has contributed to Melbourne's national and international standing. *Growing Esteem 2005* led to the introduction of the Melbourne Curriculum — six broad undergraduate programs followed by professional qualifications offered at Masters level. The Melbourne Curriculum has taken a decade to implement and is largely complete. The University is now the leading educator of graduate students in the country, with undergraduate and graduate professional learning that matches the best in the world. This generational reform has reshaped learning and teaching not just on campus, but has influenced developments at universities elsewhere in Australia, Asia and Europe.

The curriculum changes were supported by a new student services delivery approach, and the adoption of a devolved business operating model known as Responsible Division Management (RDM).

Growing Esteem 2010 identified the need for an in-depth review of research strategy, conducted by a commission drawn from across the University. The results were adopted in late 2012 as Research at Melbourne: Ensuring Excellence and Impact to 2025. Along with significant investment in new research facilities, the strategy is designed to elevate the excellence and impact of Melbourne's research.

The 2010 edition of *Growing Esteem* also introduced a new sense of urgency around the Engagement strand of the Triple Helix. Originally described as 'Knowledge Transfer', Engagement was reaffirmed and expanded in 2010, and remains essential to enriching and shaping research and teaching.

The University has been working away at the definition and the nature of Engagement for some time. Like the idea of a 'research university' — which did not become widely shared until after World War II — it will take some time before a common understanding of Engagement is reached across the University and its communities. Many of the most pressing issues for the institution are around Engagement questions — from international partnerships and the number of students we recruit, to the way the University best works with industry, alumni and friends. Engagement will thus remain a critical part of our strategy in the next five years.

¹ The Shanghai Jiao Tong rankings are widely regarded as the most rigorous for research quality.

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More recently, the University launched an ambitious fundraising campaign to enable it to continue ground-breaking research, educate tomorrow's leaders, build vital research and teaching infrastructure, and strengthen connections with local and global communities. The aim of the Campaign for the University of Melbourne is to raise \$500 million by 2017, and the institution is on track to achieve this goal. In addition to supporting the University outside public funding, the Campaign is providing a means of connecting us to alumni and advocates around the world.

Growing Esteem 2005 and Growing Esteem 2010 set a strategic agenda now largely incorporated into all University activities. Growing Esteem 2014 takes these strategic choices for granted. The intention is not to revisit recent reforms, nor is it to reconsider the myriad of specific initiatives, from Indigenous recruitment to staff and student equity, which flow from earlier choices and are embedded in the University Plan 2011–2014. Our task now is to complete the vision, while being prepared to adjust those parts of the plan overtaken by a rapidly changing world, and to address the needs of this new world. Growing Esteem 2014 recognises the next step dilemmas for our institution arising from implementation of existing strategy and from changes occurring within the sector.

1.3

The changing higher education landscape

The University of Melbourne is performing strongly, but faces a number of strategic challenges unparalleled in the higher education sector. Experts have described these challenges as 'deep, radical and urgent transformations'. In 2014, we must define our strategy against this unpredictable change.

The most significant challenge is the online 'evolution'. Digital technologies are transforming the way education is delivered, accessed and supported.³ These technologies carry broader implications, such as redefining alumni communities. With the rise of Massive Open Online Courses (MOOCs) and resources such as the Khan Academy, TED talks, and Google search, university lecturers and libraries no longer hold a monopoly on knowledge. The rate at which we create knowledge is unmatched and far beyond the capacity of universities alone to corral and to organise.⁴

Digital technologies and the ubiquity of knowledge have particular implications for students and learning (see Chapter 3). With the prevalence of wholly online and blended learning (formal programs in which students learn in part through online delivery of content), alternative economic models for tertiary delivery are likely to emerge. Universities must innovate to meet student demand for technology-enabled learning.

² Michael Barber, Katelyn Donnelly and Saad Rizvi, 2013, *An Avalanche is Coming:*Higher Education and the Revolution Ahead. Institute for Public Policy. UK, page 18.

³ It is debatable whether the impact of online learning is more evolutionary than revolutionary, and whether online technologies will change education in the same way they changed the media, retail and entertainment industries. Digital technologies are nonetheless significantly transforming the way education is delivered, accessed and supported.

⁴ Eric Schmidt, then CEO at Google, stated at the Techonomy Conference in California in August 2010 that every two days we create as much information as we did from the dawn of civilisation up until 2003.

Technology is 'unbundling' the work of universities. New competitors are emerging across all activities — from research to administration, from curriculum to assessment. MOOCs enable access to free, high quality curricula for global audiences. Large trusts, global industry players, think tanks and consultancy firms are leading and directing research. Private universities and distance learning institutions — such as Anhanguera, a \$1.4 billion Brazilian enterprise serving hundreds of thousands of students — challenge the role of public universities in awarding degrees. Staff and students can participate from anywhere across the globe.

As the cost of research infrastructure escalates, fewer universities can manage large-scale research agendas alone. Collaboration and international partnerships now drive highly cited research. Precincts — which bring together industry, government and researchers to address global problems — have become a source of competitive advantage, placing some universities in a position to contribute more directly to prosperity in their cities.

Competition for students is driving change.
Universities, once concerned about admissions, must now focus on recruitment. Domestically, under the demand driven system, universities must compete for market share rather than rely on quotas. International competition is also intensifying. Singapore, Hong Kong, India and China have their own outstanding universities, with similar successes in Mexico, Chile and South Africa.⁵



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TOGETHER INDUSTRY, GOVERNMENT

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Faced with competition from Asia, North American and European institutions and governments are investing anew. In 2013, for example, the United Kingdom Government announced ambitious targets to expand its education export industry (potentially worth \$17.5 billion to its economy).

Higher education is also characterised by significant global mobility among students, academics and university brands. In 2011, 4.3 million tertiary students were enrolled in universities outside their country of citizenship. This movement of students has transformed the economy of universities but has also made tertiary institutions highly susceptible to changes in visa policy, the exchange rate and reputation. Australian universities have a disproportionately high share of this market and are particularly vulnerable. At the same time, for universities located in small economies such as Australia, there is greater pressure to tap global sources of talent and resources to achieve institutional goals.

Finally, underpinning all of the challenges is the current budget environment. Relative public funding per student in Australian universities is around 30 per cent below the OECD average. Cuts of \$3.8 billion announced by Government in late 2012 and early 2013 have reduced the University of Melbourne's budget by more than \$150 million over the next four years. The new Commonwealth Government has indicated that returning the budget to surplus will be a priority. It will therefore be constrained in providing additional support to the sector, a challenge faced by universities globally.

 $\,\,$ OECD, Education at a Glance 2013. This figure has likely increased since 2011.

⁵ Michael Barber, Katelyn Donnelly and Saad Rizvi, 2013, loc. cit.

1.4

Next step dilemmas and integration of the three strands

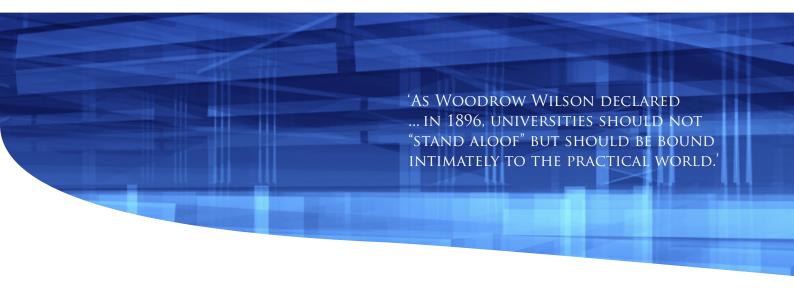
Against this 'flight of time', the University of Melbourne must be clear about its assumptions. We anticipate there will still be a place for campus-based education which combines blended learning with close student and staff interaction. This will occur in a setting that encourages research excellence, works as a precinct, and links the University with important research partners, industry, alumni and community.

To make this model a success, we will need to integrate further the three strands of the Triple Helix so that research, learning and teaching and engagement powerfully reinforce each other. This discussion paper examines next steps to achieve this goal.

The University's research performance is a key determinant of continued success. Much depends on our ability to implement the goals of the *Research at Melbourne* strategy. Notwithstanding the soundness of the strategy, an important question for research (and the broader University) will be how to focus research activities to achieve greater impact. Shaping research priorities to match the Grand Challenges becomes essential. The Grand Challenges speak to the question of impact, an area in which the University of Melbourne has not been a leader to date. We have much to learn from those institutions which have long placed research impact at the centre of their agenda.

These forces — technological change, intense competition and constrained resourcing — pose major challenges for universities. The dominant university model in Australia — the comprehensive teaching and research model — may become unviable in all but a few cases, with increased specialisation in areas of strength. In this environment, university offerings will need to be more compelling and cost effective, and future income will need to flow from a broader range of sources including philanthropy and corporate engagement. Above all, these forces of change will require universities to better define their strategy and ambitions.





As the University contemplates technological change. the quality of the student experience will be paramount. The student experience has vital implications for the University's success in many areas including, for example, the growth of our endowment. Early adoption of online education positions the University of Melbourne to develop leading online and blended learning models. In order to remain an attractive destination, however, the University must improve not just the physical and virtual classroom, but also the broader student experience. This must include more structured transitions to employment, internships and other work opportunities, especially for students in professional graduate programs. At undergraduate level, there is a chance to emphasise global mobility, including opportunities arising from the New Colombo Plan. Engagement thus becomes even more central to the University's strategy.

The University has employed considerable resources to pursue each of the strands of the Triple Helix. Yet the real power of the Triple Helix — its integration — remains only partially realised. Having pursued the individual goals of each strand, the University can now bind together all the strands of the Triple Helix through engagement. Much of this integration is already taking place. It is evident in the way international collaborations, partnerships with industry and public engagement, for example, add depth and dimension to the University's research and teaching activities. Yet far more is possible.

The discussion of strategy is necessarily followed by a conversation about resources and delivery. How the University budget is allocated, how staff are supported, and how faculties balance demands around research, learning and teaching and engagement are questions of strategy. Hence the discussion of University goals must also consider the costs of administration, the prospects for collaboration, and those opportunities so far not grasped. With less public funding for research, we ask in Chapter 5 whether increasing substantially the scale of learning and teaching activities — by enrolling more online students, by refining our international engagement strategy and introducing multiple terms — could create additional revenue to invest in research and teaching. With digital technologies revolutionising the sector, the question becomes how to best use new technologies while ensuring the campus remains a vibrant and engaging space for staff, students and the community.

Finally, as Australia's leading university, we have an increasing obligation to serve the nation. Melbourne believes universities can play a more central role in advancing knowledge, in creating the country's new industries, in lifting the competiveness of existing industries and in boosting productivity, jobs and wealth creation. As Woodrow Wilson declared in his famous commemorative address at Princeton in 1896, universities should not 'stand aloof' but should be bound intimately to the practical world.⁸

⁷ Alumni who have positive feelings about the University, for example, are more likely to support the goal of building our endowment.

⁸ From The Papers of Woodrow Wilson, Volume 10, reprinted with the permission of the Princeton University Press. http://www.princeton.edu/~mudd/exhibits/wilsonline/ indn8nsvc.html

'THE NEXT STRATEGIC PLANNING PERIOD WILL SEE THE UNIVERSITY OF MELBOURNE CONTINUE TO "ENLIGHTEN, STRENGTHEN AND MAKE FIT" ITS RESEARCH, TEACHING AND ENGAGEMENT OFFERINGS IN THE SERVICE OF THE NATION.'

Education is the business of universities. Yet rather than merely seek to 'draw out the powers of the individual mind' Wilson reminded us that education should 'draw all minds to a proper adjustment to the physical and social world in which they are to have their life and their development'.

The next strategic planning period will see the University of Melbourne continue to 'enlighten, strengthen and make fit' its research, teaching and engagement offerings in the service of the nation.

1.5

Responding to this discussion paper

The purpose of this discussion paper is to seek the responses of members of the University community to these strategic dilemmas. Both individual submissions and group responses are welcome. There will be opportunities to provide feedback in person during a series of focus group discussions and smaller conversations from April to June 2014.

The responses to this Green Paper will inform the development of the University's renewed strategy, *Growing Esteem 2014* (White Paper), and the accompanying Strategic Plan for 2014–2018. The Green Paper examines the key issues now being considered by the University. The White Paper will set the strategic direction and will include key goals and targets. A draft White Paper will be submitted to University Council in July and to the Planning and Budget Conference in August 2014.

Responses to this paper would be appreciated by **Thursday 17 April 2014** and can be submitted to growing-esteem@unimelb.edu.au.

⁹ The 'Green Paper' and 'White Paper' terminology, often used in government, refers to a two-tiered consultative approach employed in the development of policy. The 'Green Paper' is usually a tentative report or document of proposals for debate or discussion without commitment to action. It may be used to launch a process of consultation. The 'White Paper' is a more authoritative report, outlining the policy preferences or directions which have been identified and decided through the consultation process.

CHAPTER 2 RESEARCH IMPACT

Research improves lives and contributes to the greater wellbeing of societies. Innovative technologies, scientific discoveries, cultural development, new approaches to public policy, and changes to the way we educate the next generation can transform lives. As a public-spirited institution, the University of Melbourne is committed to developing new insights and promoting a better understanding of the world.

In renewing strategy, these fundamental reasons for undertaking research do not change. *Research at Melbourne*, published in 2012, affirmed an intention to remain a research-intensive, investigator-driven university focused on a small number of Grand Challenges. Our goal is to be among the best research universities in the world, measured in part by a top 40–45 ranking in the ARWU.¹⁰

A commitment to the Grand Challenges is a commitment to impact, to making a difference and to measuring that effect. The definition of research impact is a much-debated topic. Impact can be both academic and non-academic in nature. Both forms of impact are important. In the academic arena, impact can be viewed as an indicator of the intrinsic quality of specific research by scholarly or academic measures, such as productivity and citations. Non-academic impact involves more tangible benefits such as the application of research to achieve verifiable social, economic, environmental or cultural outcomes.¹¹

The dilemma for a comprehensive university is balancing enquiry-led research with world-changing discoveries. Not all research has immediate impact. Not all impact flows from research. Yet in committing to address the Grand Challenges, the University seeks to make a difference. This means research that maps well to the Grand Challenges and more focused research. It means greater alignment of the research training cohort with Melbourne's research strategy, creating incentives and more agile processes to foster research collaborations with industry and international partners, and looking beyond impact to being part of a broader system of innovation.

¹⁰ Why not top 30 or even top 10? The limiting factor for Melbourne, as for all Australian universities, is resourcing. Research success is a combination of brilliant minds and superb facilities funded to international standards. We have much of both, but at about half the funds available to the world's strongest research universities. Hence ambition is here tempered by realism.

¹¹ The UK Research Excellence Framework assesses impact that occurs up to 15 years from the time of the published research using a case study methodology. REF document 01.2011. http://www.ref.ac.uk/pubs/2011-01/.

2.1

The role of the Grand Challenges

Research at Melbourne identifies three Grand Challenges for the University of Melbourne: Understanding our Place and Purpose; Fostering Health and Wellbeing; and Supporting Sustainability and Resilience.

Since the release of *Research at Melbourne*, the University has pursued these Grand Challenges through research collaborations with external partners alongside cross-faculty initiatives such as Carlton Connect. The next steps will require further investment by the University. This will involve concentrating available research dollars and giving priority to projects and partners that speak to the Grand Challenges. Available discretionary funding must go to Grand Challenge projects deemed priorities, and disciplines should be more closely aligned with the Grand Challenges. The strategy only becomes real when we sacrifice some traditional approaches to concentrate more rigorously on the chosen direction.

If successful, the Grand Challenge approach will see the University more widely recognised for its social contribution, more deeply aligned with industry and not-for-profit organisations pursuing the same goals, and able to point with confidence to the impact of its research.

2.2

More focused research

As well as closer alignment of disciplines with the Grand Challenges, our strategy must allow for investment in any area that can demonstrate a world-leading position. Greater research focus can help to better define this strategic investment and can maximise scholarly excellence and impact.

Universities globally are directing more of their support into designated research areas. This is partially in response to a more competitive marketplace for research funding and the need to distinguish research capabilities from those of other institutions. It also stems from the high costs (including infrastructure costs) of managing many fields of research. In Australia, some institutions have concentrated research activities and strategic support with successful outcomes.

Melbourne's researcher-driven and comprehensive research character reflects the desire to make a significant impact by involving the full breadth of the research community. This paradigm forms the basis of cutting-edge interdisciplinary activities and the deep disciplinary expertise upon which the Grand Challenges rely. More focused programs have tended to emerge as centres of excellence or as special initiative centres, based around the work of outstanding individuals or groups of researchers.

¹² Carlton Connect is a project through which the University seeks to link together industry, government and academia more effectively to pursue the shared goal of more sustainable and resilient societies. The nexus for the project will be an innovation hub located on the former site of the Royal Women's Hospital. In 2014, a branding strategy will be implemented and a new name for the project is likely.

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Notwithstanding the University's long-established research philosophy, we can achieve greater focus in selected areas. This could be accomplished by preserving our range of disciplines, while identifying a number of disciplines within each Faculty with the potential to be ranked in the THE World University Rankings top 20 and/or the ARWU top 40.

Greater focus should not limit capacity for fundamental research, nor limit our ability to link research, teaching and engagement so that our students and the wider community benefit from our comprehensive character. A broad base but targeted investment, however, balances comprehensive coverage with focusing resources in areas of demonstrated excellence.



2.3

Achieving research impact

How does a University maintain its comprehensive character yet make an impact through specific research priorities?

There are four key elements in addressing this question. The first is clarity of goals, or a clear statement of areas of research upon which we choose to concentrate. The *Research at Melbourne* strategy has provided this clarity.

The second approach is to work with individual scholars on how they contribute to the wider picture. This is a conversation about balancing enquiry-driven research with capacity to be part of larger projects. Most disciplines already speak to both ends of the research spectrum, and the Grand Challenges provide a way to organise future research planning and grant applications against a more targeted set of outcomes.

The third variable is recruitment. One outcome of the *Research at Melbourne* strategy has been new funding to secure up to 50 senior researchers for the University. A capacity for impact is an important criterion in the selection of these researchers.

Finally, the University of Melbourne is a national leader in producing excellent, well-rounded graduate researchers prepared for a diversity of research careers. Achieving greater alignment of research training offerings with research strategy improves opportunities for graduate researchers and can help to boost the impact of the University's research.



2.4

Fostering research collaborations

Our graduate researchers are among the most promising researchers, and make significant contributions to research reputation and outcomes. There are almost 5,000 graduate researchers at the University, most of who are full-time candidates. The University invests a great deal in its graduate researchers but there are more strategic ways to harness this enormous pool of talent. Organising research training offerings into thematic programs creates opportunities for collaborative research, and brings together research training cohorts. To promote greater alignment of research training with research strategy, scholarships could be allocated in accordance with strategic priorities or thematic programs.

In a constrained funding environment, research collaborations help boost multi-authored research publications, joint research grants, sponsored research and profile. Collaborations improve the quality, scale and impact of research outcomes, increase the likelihood of major breakthroughs, and diversify sources of research income. ¹³ For research partners, collaborations provide access to leading scholars and new thinking.

The Research at Melbourne strategy emphasises researcher-to-researcher and institutional-level collaborations with strategic partners. The University has identified five countries of strategic importance — China, India, Germany, Brazil and Chile — and encouraged collaborations in these focus countries through an International Research and Research Training Fund (IRRTF).

Within Australia, the University has conducted an extensive review of engagement with industry (see Chapter 4), and continues to build precincts. The Melbourne biomedical precinct is an inspiring example, and includes some of the University's most significant collaborations through such initiatives as the Victorian Comprehensive Cancer Centre and the Doherty Institute. The precinct is now being emulated with Carlton Connect and with clustering of arts and cultural organisations at Southbank.¹⁴

- 13 The University of Melbourne's research income is dominated by its Category 1 performance and the University continues to lead in relation to Category 1 income. Melbourne is more vulnerable in Category 2–4 income (in particular Category 3). We face competition from those universities who pursue industry engagement as a priority. The University of Melbourne's 2012 Category 2–4 research income (\$168.9 million) places it third behind the University of Queensland (\$187.7 million) and the University of New South Wales (\$182.9 million). We are falling behind Monash, Queensland and Sydney Universities in relation to Category 3 (which reflects engagement with industry).
- 14 The University's important relationship with partner hospitals and medical research institutes both in and beyond the Melbourne biomedical precinct is critical to the pre-eminence of the precinct and contributions to significant medical research more broadly.

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There are good examples across campus of engagement with industry, which includes collaborations with government and semi-government bodies. Academics work with industry to the benefit of both research and teaching. The Centre for Advancing Journalism, for example, offers students training opportunities linked to active research projects. The AuSud Media Project, for example, is a researchbased journalism training initiative for Sudanese Australians. Working with industry partners such as the Australian Broadcasting Corporation and the Australian Multicultural Education Service, the project encourages participants to build relationships with mainstream media while contributing findings to the media treatment and communication needs of African Australians. The research serves to tailor training to students' needs, eventually enabling students to run their own online news site.

Feedback to date nonetheless suggests significant barriers to productive collaborations with industry, government, community and research organisations, locally and globally. More agile processes, clearer entry points for external partners, appropriate incentives and skilling our workforce to work confidently with industry and other partners will be priorities over the next five years. These partnerships will help to meaningfully translate our research and scholarship to the wider community, and increase Category 2–4 funding for the University. In Importantly, addressing these priorities will embed the University in a wider network of affiliated organisations, bridging the sharp divide between the academy and the society it serves.

2.5

Being part of an innovation system

With the contraction of Australia's traditional manufacturing industries, the University of Melbourne believes there is a more central role for innovation in creating new industries, in lifting the competiveness of existing industries and in boosting productivity. Universities will be part of this new approach as never before. Innovation offers an important means of being public-spirited.

Universities, however, cannot be innovative in isolation. Collaboration is the emerging ethos of research but this goes beyond impact — it is about being part of the innovation system, so that ideas and people flow regularly in both directions.

In practice, Melbourne has a long history of regular exchange in one industry domain, the health and biomedical science arena. The University has an outstanding network of research institutes and clinical departments based in teaching hospitals at Parkville, Eastern Hill, the Austin, the Western and Northern Hospitals, a rural health network and a general practice network. We have a working model of how the University can be part of a larger system, with people who have a foot in the institution and the other in hospitals and medical research institutes. To realise the full potential of this system, the University is working with partners to achieve better integration of constituents and to remove administrative barriers to collaboration.

¹⁵ Category 2-4 income is funding not on the Australian Competitive Grants Register. Category 2 relates to other public sector research income. Category 3 refers to industry and other research income, and Category 4 pertains to Cooperative Research Centres (CRC) research income.

'IMPORTANTLY, AN INNOVATION PRECINCT SHOULD
BE THE LOCUS OF NEW INDUSTRIES AND NEW TALENT
— THE NEXT GENERATION OF BUSINESS LEADERS AND
ENTREPRENEURS WHO HAVE AT THEIR DISPOSAL ALL
THE RESOURCES NEEDED TO CREATE NEW INDUSTRIES
OR SPIN-OFF COMPANIES, AND TO SUPPORT
INNOVATION IN THE BROADER COMMUNITY.'

The tight interactions between the University and the health service industry can be matched in other sectors. This will require some difficult choices for the academy — surrendering some control to be part of something wider, appointing people who do not fit comfortably within traditional academic employment categories, sharing credit for new research. The medical experience shows we can do this well, but it requires conscious change to create more porous boundaries between the University and its partners.

A change in focus will be important if we are to sustain public support for research investments. The public has been promised too many instant cures for cancer, too many 'breakthroughs' that exaggerate plausible timeframes. It is important to explain better this new 'engagement' in which research is linked to relevant industry, and developed in collaboration through teams who share goals. The challenge starts at home: the idea of 'goal-directed research' is challenging to many.

Ideally, the campus should be part of an innovation precinct, with research partners clustered around academic units, with people who share commercial and academic appointments, and with an efficient and largely invisible support system of intellectual property transfer, access to platform technologies and all the other underpinnings that allow ideas and people to move freely and swiftly within the precinct.

Importantly, an innovation precinct should be the locus of new industries and new talent — the next generation of business leaders and entrepreneurs who have at their disposal all the resources needed to create new industries or spin-off companies, and to support innovation in the broader community. Such resources include the best business training, access to seed funding and partnerships with industry, accommodation and opportunities to network with peers and experts in the field. In this context, it might also be worth exploring how the University can help to create new industries in a more direct way.

The Melbourne biomedical precinct, the largest cluster of medical researchers in the nation, presents a first approximation on how such an ecosystem can work. Our challenge now is to recreate a system around sustainability and energy issues through Carlton Connect as the next large research investment by the University.

The Triple Helix works best when closely integrated. Being part of a wider network of affiliated organisations is linked directly to the University's international collaborations and engagement with industry. Thus the Engagement agenda, addressed in Chapter 4 of this paper, outlines actions essential if we are to boost overall research performance.

Proposals

- > To ensure our research makes a difference, faculties will be encouraged to align disciplines more closely with the Grand Challenges. The University will continue to allocate discretionary funds towards the Grand Challenges and employ appropriate business models and incentives to promote the strategy.
- > Flagship Grand Challenge initiatives, including Carlton Connect and the Melbourne School of Government, will be priorities for the research portfolio.
- > Each Faculty will be encouraged to identify three discipline areas in which it seeks to attain a global standing as measured by a ranking in the THE World University Rankings top 20 and/or the ARWU top 40. Faculties unable to attain a top 20 or top 40 ranking must be prepared to make decisions around focus. The University will employ appropriate business models and incentives to promote this strategy.
- > Research training offerings will be organised into thematic programs and be integrated with the Grand Challenges. Scholarships will be allocated more strategically and in accordance with thematic programs.

- > The University will increase the impact of its research in the broader community by establishing more partnerships, collaborations and interactions with industry, government and community organisations, locally and globally. This will ensure we meaningfully translate our research and scholarship to the wider community. It will provide a useful boost to our Category 2–4 income. We will invest in fostering the cultural change necessary to implement this strategy.
- > We will create a system of innovation around sustainability and energy issues through the Carlton Connect initiative, with a particular focus on nurturing new industries and the next generation of business leaders and entrepreneurs in the system. In this context, the University will explore how it can help to create new industries in a more direct way.

CHAPTER 3

A TRANSFORMATIVE STUDENT EXPERIENCE

A university education should challenge, expand and enrich lives. It leads to meaningful careers, propels social equity and boosts productivity. As Australia's leading university, Melbourne aims to attract students from all backgrounds with high academic potential, to provide outstanding learning experiences and to foster leaders.

In 1923, when Sir John Monash began as part-time Vice-Chancellor of the University of Melbourne, he offered his views on education to a journalist of *The Argus*:

The greatest mistake in life is to specialise too early ... We should have a knowledge of the laws of Nature, of the history of civilisation, and of art, music and literature. To whatever extent we lack these things, to that extent is our vision and outlook limited and cramped.¹⁶



The University is nearing the conclusion of a ten year journey to transform its curriculum. Like John Monash many decades before, the new curriculum recognises the importance of laying educational foundations before building professional expertise.

This approach develops attributes prized in the emerging knowledge economy — creativity, flexibility, intercultural skills, and a capacity to synthesise information. Melbourne's broad undergraduate programs and graduate-level professional education attract many of the nation's most able students. This success notwithstanding, there is a need to evaluate regularly and to address those aspects of the curriculum that do not match up to stated aspirations.

The University's equity and access programs have matched the success of the Melbourne Curriculum. Melbourne's commitment to diversifying its student community is reflected in the University's changing student profile since the introduction of the new curriculum. Enrolments for Access Melbourne — which allows for more targeted recruitment of students who have experienced educational hardship — have lifted sharply and in 2013 accounted for 33 per cent of total offers to commencing students. There has been a pleasing increase in representation of western and northern suburb schools in the top 50 list of University feeder schools since 2006.

16 Geoffrey Serle, 1982, John Monash: A biography, Melbourne University Press, Carlton, Victoria, page 477.

'THE FUTURE IS A COMBINATION OF WHOLLY ONLINE AND BLENDED LEARNING, LINKED TO PERSONAL ACCESS TO GREAT TEACHERS AND SHARED LEARNING EXPERIENCES.'

With opportunities presented by online technologies, there is the exciting prospect of offering courses to new cohorts of students. One of the most significant changes since the original *Growing Esteem* has been the emergence of these technologies to enhance the ancient role of teaching and sharing knowledge. The purpose of education remains the same, and the primary challenge is to create a high quality, placebased student experience. There are, however, many new possibilities for engaging students. In this context, Melbourne must offer the best possible learning environments, and the highest quality teaching.

Beyond the classroom, our students need access to international opportunities, to internships and to the stimulating student life possible at a great university. It should be possible for a student to live in a college, participate in a theatrical production, play a sport, and learn a language while completing a program at the University of Melbourne. Students should also be encouraged to shape their academic program and co-curricular activities to meet their personal and professional goals, and to articulate the relevance and breadth of their experience to future employers.

3.1

Embracing the online evolution

Technology has altered irrevocably teaching at the University. Students now expect access to materials, lectures and assignments online, alongside time they spend with peers in the classroom. A generation of digital natives moves seamlessly across all the channels now available. The future is a combination of wholly online and blended learning, linked to personal access to great teachers and shared learning experiences.

The University of Melbourne is determined to embrace and excel at addressing these challenges. In September 2012, Melbourne signed up with Coursera, one of the largest free online university platforms in the world. Just over a year later, Melbourne enrolled over 300,000 students from 80 countries in the seven online courses offered by the University. This initiative has highlighted the importance of strategic alliances and new partnerships around curriculum. It has shown there is a global audience for high quality education.

The next steps are to diversify offerings and introduce some paid programs alongside existing MOOCs. The aim would be to offer internationally distinctive and sustainable wholly online programs, establishing Melbourne's reputation as a premium provider of online graduate, executive and professional education. This is a new way of thinking about international education and an alternative to establishing new campuses offshore.

'A FLIPPED CLASSROOM REQUIRES FLEXIBLE TEACHING SPACES AND A WILLINGNESS TO QUESTION THE TRADITIONAL LECTURE-AND-TUTORIAL MODE OF COURSE DELIVERY.'

3.2

High quality learning and teaching

Technology provides new ways to deliver courses. It can also change the way students interact with their peers and teachers. The challenge is to create online courses that are interactive, and to rethink physical spaces on campus so they support new ways of engaging.

It may seem paradoxical to mention active learning in the context of online and blended delivery. Yet the most exciting developments in the field use online technologies to support project work, case studies and student-to-student communication. These student-centred forms of learning and assessment develop attributes important to employers, such as interpersonal skills, the ability to manage a variety of tasks and to apply expertise in many contexts.



The University has developed an eLearning Incubator to test and extend these new techniques. New methods include early trials of 'flipped classrooms' where foundation course content is delivered online. This frees the classroom for exchanges that are more stimulating and more relevant to individual students. A flipped classroom requires flexible teaching spaces and a willingness to question the traditional lecture-and-tutorial mode of course delivery.

Again it may seem paradoxical amid exciting new online technologies to focus on investment in teaching quality. Yet everything we know about the new world of blended learning emphasises the importance of academics who can interact with students and work with teams of professional staff to support learning. This new approach raises important questions about programs to develop teaching capability and better career development for University staff.

The University will improve its capacity to evaluate learning, recognise teaching excellence and target more effective course delivery through an emphasis on learning analytics. New delivery modes generate a wealth of data about what and how students learn. This can help us to better understand student motivation and learning behaviour. We know students learn most when they take responsibility for learning. Analytics can highlight, support and reinforce those teaching practices that best foster student involvement, student initiative and outstanding learning outcomes.

'WITH ACCESS TO THE BEST STUDENTS IN THE NATION AND FROM THE REGION, THERE ARE OPPORTUNITIES TO LINK TOGETHER BODIES OF KNOWLEDGE IN AN INNOVATIVE SET OF DISTINCT OFFERINGS THAT PRODUCE GRADUATES WITH INTERDISCIPLINARY PERSPECTIVES AND AN UNDERSTANDING OF BUSINESS NEEDS.'

3.3

Experiential learning

For students, the riches of university life extend far beyond the classroom. Many will experience community life in colleges, benefiting from rewarding friendships and the participation that flows from living on campus. Even more students will participate in interest groups, sports, the arts and campus politics. Countless rewarding and fulfilling careers begin by pursuing such interests while studying.

Some students arrive ready to seize these opportunities, others need to be guided to take the initiative and build networks through support services that respect student agency. New technologies have a role here. Better use of technology can allow students to be more self-directed through self-service options, self-help resources and social networks, and simultaneously enable staff interactions to focus on the provision of higher quality, more individually relevant advice to students.

As the University develops new teaching technologies, it must also think constantly about student life on campus. There is scope to work with existing colleges on new accommodation options. Amid academic buildings there is opportunity to design more outdoor and informal spaces where students move between study and leisure, and between digital and physical interactions. The timetable should allow scope for shared work and play outside the classroom. A great university is a place where people grow into their potential.

Alongside the personal aspects of study, students also have career goals. The Melbourne Curriculum encourages breadth at undergraduate level but also exposure to disciplines that lead to employment outcomes and inform future professional study.

At graduate level, the University must increase opportunities for students to expand career horizons. Melbourne now has the capacity to offer distinct pairings of subject areas to prepare students for new employment niches. The Master of Engineering (Business) will commence in 2014 and there are countless professional programs that include exposure to management and leadership skills. With access to the best students in the nation and from the region, there are opportunities to link together bodies of knowledge in an innovative set of distinct offerings that produce graduates with interdisciplinary perspectives and an understanding of business needs.

We must also enable students to experience first-hand a range of professions. As the University builds its industry and professional engagement capacity, it has a chance to embed experiential opportunities — such as research projects, industry and work-relevant projects, entrepreneurship, volunteering, and career guidance as well as domain-specific experiences — in all student pathways. Such activities can bridge learning and practice, and improve graduate employment outcomes.

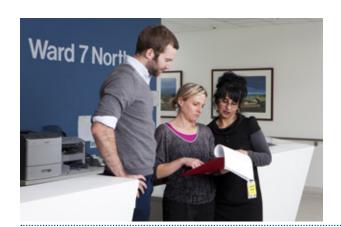
'BY INCREASING EXPERIENTIAL LEARNING OPPORTUNITIES, BOTH ON CAMPUS AND BEYOND, THE UNIVERSITY HAS THE OPPORTUNITY TO BOOST THE QUALITY AND RELEVANCE OF ITS DEGREES.'

There should be increased access to the support required to source, select, exploit and articulate these experiences in ways that further professional aspirations. Students would benefit also from more opportunities to link curricular and co-curricular learning with the many research and engagement opportunities the University offers. Co-curricular programs, third-year electives or Masters programs that speak directly to the research Grand Challenges, for example, could offer students rewarding experiences beyond the classroom with possible impact on employability.

More broadly, academic activities should build deeper links between graduate schools and the professional communities they serve through research linkages and the involvement of professionals in advisory boards and teaching. These links ensure the relevance of programs, while enabling richer experiential opportunities for students preparing to enter the workforce. As with research, the learning and teaching agenda will benefit from clearer engagement with industry.

The University also has a part to play in the nation's response to the Asian Century. We aspire to provide an internationally informed and globally relevant education for all students. A mix of international and domestic students encourages a global outlook for all graduates. Students should be taught by academics who are global leaders in their fields and are engaged with international peers. If graduates are to navigate geographic frontiers with confidence, there is no substitute for experience. The University will seek to extend and embed opportunities for global mobility in undergraduate pathways, taking full advantage of possibilities arising from the New Colombo Plan.

By increasing experiential learning opportunities, both on campus and beyond, the University has the opportunity to boost the quality and relevance of its degrees. Melbourne graduates will be ready to make strategic choices, to think creatively, to innovate and to forge new connections — in short, to be leaders.



Proposals

- > The University will build innovative, blended learning opportunities into all programs to improve learning experiences and learning outcomes. The University will implement a suite of high quality online graduate programs, returning substantial net revenue to the University and building capacity in online curriculum delivery and development.
- The University will refresh its approach to professional development for learning and teaching, and focus on developing approaches that provide richer and more immediate feedback on learning and teaching to students and staff through better use of technology and learning analytics.
- > Building on the considerable attractiveness of the University's existing atmosphere, we will provide physical and virtual infrastructure on our campuses to enrich the student experience. This must include additional student accommodation (See Chapter 6) and learning spaces that reflect the reality of digital education.

> The University will support a range of opportunities for students, including international exchange, work placements and internships, research projects, and volunteering and entrepreneurship schemes. For undergraduates, the learning experience will extend beyond campus through global mobility. For graduates, the focus will be on increasing access to more structured work experience.

CHAPTER 4 ENGAGEMENT AND TYING THE STRANDS TOGETHER

The discussion of research in this paper began with the proposition that impact requires research which speaks to industry and community concerns. Likewise, the future of teaching is bound up with greater opportunities for students to engage with the world and future employers so that experiences in the classroom are understood as important and relevant.

In short, engagement draws together the three strands of the Triple Helix. By addressing the wider world, Melbourne can be ranked among the finest universities, with research, learning and teaching and engagement strands that are tightly bound and mutually reinforcing.

To date, integration of the three strands at Melbourne has occurred somewhat sporadically. We have wrestled at times with the diffuse suite of activities encompassed within the Engagement strand, employing resources to better define each part of the Triple Helix but often in ways independent of each other. As a consequence, research, learning and teaching and engagement have not worked together as coherently as possible. Through industry, international and public engagement, Melbourne now has the chance to lead the way in integrating all three strands.

4.1

A three-dimensional approach

There are many examples across campus where the benefits of linking research, learning and teaching and engagement have been only partially realised. The University supports a vast number of research collaborations worldwide, for instance, but these are mainly between individual academics or small groups of researchers.

Only occasionally are international research collaborations linked to learning and teaching, although it is not difficult to see opportunities around the research and teaching nexus. Similarly, international recruitment and study abroad programs are often driven by individual students, rather than linked to partner institutions with strong ties across academic disciplines. The University interacts closely with organisations, hospitals and schools about work placements but rarely talks to the same managers about potential research collaborations.

2.4

"... ENGAGEMENT WITH INDUSTRY
SHOULD BE A DISTINGUISHING FEATURE
OF THE STUDENT EXPERIENCE AT
MELBOURNE. OPPORTUNITIES FOR
PLACEMENTS AND INTERNSHIPS
SHOULD BE AN ESSENTIAL PART OF
ALL OUR PROFESSIONAL EDUCATION
OFFERINGS."

Yet there are encouraging examples which show what can be achieved. The Faculty of Science's research collaboration with the Indian Institute of Science (IISc) in Bangalore, for example, has evolved into a further arrangement with the Indian Institute of Science Education and Research (IISER), and a commitment to work together with the IISER on a blended Bachelor of Science. The longer-term goal is to share supervision of doctoral students and to strengthen disciplinary links between the researchers at all three institutions, with an eye to a three-way industry partnership.

The Faculty of Science and the Melbourne School of Engineering also recently launched a \$3 million partnership with the IISc, and the Indian Institutes of Technology in Madras and Kanpur. Known as the Melbourne–Indian Postgraduate Program, this initiative involves joint supervision of doctoral students, student mobility programs, potential research opportunities, and linkages outside the university sector.

These examples illustrate the advantages of linking research ambitions with learning and teaching, and with engagement. It also suggests the benefit of bringing academic and professional staff together — whether their portfolio is research, curriculum development, international engagement, eLearning, marketing, financial modelling or advancement — to form rich and robust partnerships. When we reach out, we also encourage new links within.

4.2

Industry engagement

Industry engagement is a key strategy for achieving greater integration between the strands. Melbourne currently engages with industry in a dispersed and uncoordinated manner. With this in mind, in 2013 the University conducted a review of its industry engagement.

The review concludes that a new framework for industry engagement holds the best prospects for the University to develop effective partnerships with industry across the three strands. For research, a more coherent approach to engagement and appropriate incentives would see more of the University's academics and research higher degree students working closely with industry. This approach should see growth in executive education, technology transfer and staff exchanges with industry. It should also lift the University's Category 2–4 research income.

Likewise, engagement with industry should be a distinguishing feature of the student experience at Melbourne. Opportunities for placements and internships should be an essential part of all our professional education offerings. More broadly, industry engagement should attract more joint appointments, opportunities for teaching, mentoring and supervision, and more shared projects.

Such a level of coordination will require the University to rethink present structural arrangements around partnerships, commercial activities and research contracts. Previous experiments in introducing high level leadership in this domain have been unsuccessful.



'OVER THE LAST 15 YEARS, OUR STRATEGIC PARTNERSHIPS WITH INSTITUTIONS ABROAD HAVE PROVIDED AN IMPORTANT VEHICLE FOR ACCESSING RESEARCH FUNDS, ENCOURAGING RESEARCH PUBLICATIONS, AND PROVIDING MOBILITY OPPORTUNITIES FOR STUDENTS.'

4.3

International engagement

Developing an operating model that can deliver leadership in the devolved structure of the University remains the challenge. One simple way to start could be to require industry boards for all graduate schools, recognising this has already occurred spontaneously across campus in recent years.

Alongside rethinking our approach to industry engagement, there is a need to consider incentives. Though in theory industry engagement is recognised in academic appointments and promotions criteria, in practice institutional culture places a high premium on traditional research activities, such as publication in learned journals. The challenge is to value existing forms of scholarship while providing space to reward engagement. This may require faculty-based senior engagement professionals who can work alongside academics around shared engagement goals. Other initiatives could include professorial appointments for a number of industry experts. This is a model that already works well for clinicians working in hospitals and could be extended to other industries.

As with industry engagement, the University's international agenda represents an opportunity to explore more fully how Melbourne can combine all three strands of the Triple Helix to achieve its overarching goals.

International engagement is pivotal to the University's research, and learning and teaching goals. Over the last 15 years, our strategic partnerships with institutions abroad have provided an important vehicle for accessing research funds, encouraging research publications, and providing mobility opportunities for students. These links have led to the development of a number of joint degrees, joint subjects, and summer school programs with prestigious universities globally.

To build scale, profile and impact, one option is to consolidate academic activities into a small number of focused offshore initiatives. In the past, the University has been justifiably cautious about establishing offshore campuses. Academic staff and students based offshore can sometimes feel less connected to the core of the university, and financial returns remain modest. There is also limited evidence to suggest that a physical research presence offshore has any immediate influence on increasing high quality collaborative research output, although there may be long term benefits. ¹⁷

¹⁷ The Observatory on Borderless Higher Education has published reports on trends in overseas campuses since 2002. The most recent report found that at the end of 2011 there were 200 degree-awarding international branch campuses (IBCs) in operation worldwide, with 37 more to open over the next two years. However, the nature of IBCs is changing. New trends include more intra-regional IBCs, niche campuses, 'study-away' sites and portals, and a link between IBCs and the drive by governments to establish 'education hubs' for national economic goals. Global reputation has become a greater motivating factor than revenue. Universities and governments are seeking to build longer-term partnerships driven more by research and longer term benefits, rather than immediate financial returns. See William Lawton, and Alex Katsomitros, 2012, 'International branch campuses; data and developments', The Observatory on Borderless Higher Education. The quality and reputational issues associated with establishing an offshore presence can be substantive and should not be underestimated. For a summary of these issues see Rachel Aviv, 2013, 'The Imperial Presidency', Annals of Education, The New Yorker, pages 60-71.

'THE UNIVERSITY OF MELBOURNE HOSTS HUNDREDS OF CONFERENCES, SEMINARS, LECTURES AND OTHER COMMUNITY ACTIVITIES THROUGHOUT THE YEAR, PROVIDING AN IMPORTANT MECHANISM FOR THE DEBATE OF PUBLIC ISSUES AND SHARING OF EXPERTISE.'

4.4

Public engagement

While acknowledging these constraints, the University is exploring the model of an international joint research centre (IJRC). Many elite universities in the United States have established impressive IJRCs in Asia and the Middle Fast.

At their best, IJRCs provide flexibility to partner with the highest performing research groups in the region, sharing disciplinary expertise and infrastructure. An IJRC can also provide a platform for greater involvement by a broader range of industry partners and therefore opportunities for additional collaborative or contract research.

Melbourne is considering IJRCs with a small number of international partners, allowing co-badging of existing facilities or laboratories at each of the partner institutions. The intent is to maximise access for Melbourne researchers, research higher degree candidates and postdoctoral fellows to international disciplinary expertise and infrastructure, as well as to provide greater international profiling for the University. A first step may be to develop an IJRC in China, building on existing research collaborations with Tsinghua University.

Assuming the University can foster over time IJRCs in its five focus countries — China, India, Germany, Brazil and Chile — there is an interesting question about integration. Though the IJRCs are centred on research and research training, the partnerships established might also support joint academic programs such as joint subjects, online or blended learning, and joint degrees. They might help to build linkages with government and industry partners, and generate opportunities for student recruitment, alumni and advancement.

The University's engagement with its local and international community is an important platform through which the institution can demonstrate the impact or social value of its research and teaching programs. Like industry and international engagement, public engagement can bring together the University's research and teaching activities in a mutually-reinforcing way, integrating the strands of the Triple Helix.

The University of Melbourne hosts hundreds of conferences, seminars, lectures and other community activities throughout the year, providing an important mechanism for the debate of public issues and sharing of expertise. Many of our research programs are established as resources for government and community organisations, both in terms of research findings and practical application in the community.

There is an opportunity to encourage greater public engagement and public debate through an emerging precinct around public policy. A number of significant partners have set up around the University's Parkville campus in recent years. These include the Australia and New Zealand School of Government, the Centre for Advancing Journalism, The Conversation, the Grattan Institute, the LH Martin Institute, the Melbourne Institute of Applied Economic and Social Research. and the Melbourne School of Government. These organisations could form part of a larger public policy precinct encompassing the nearby Faculty of Business and Economics, the Melbourne Business School, the Melbourne Graduate School of Education, the Melbourne Law School, the Faculty of Arts, and Melbourne University Publishing.

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Finally, building relations with the University's many alumni and supporters is a key part of our engagement strategy. Alumni support the University in a myriad of ways, acting as ambassadors, mentors, volunteers, career advisors and donors. The demographic of our alumni body is becoming more interstate-based and more international. The nature of student experience, and therefore the strategy for alumni interaction, is being transformed through the delivery of the Melbourne Curriculum. MOOCs have the potential to change significantly the scale and the experience of alumni. The University will need to review and refine its alumni relations strategy.



Proposals

- > The University of Melbourne will adopt a new framework, structure and incentives scheme to support and enhance industry engagement across the institution. Incentives to encourage industry engagement may include strengthened academic career indicators for engagement, an internal education program to promote professional development, and professorial appointments for industry experts.
- > The University will introduce a requirement that all graduate schools have industry boards, recognising this has already occurred spontaneously across campus in recent years.
- > The University will develop a number of joint research centres with international partners, allowing co-badging of existing facilities at each partner institution.
- In the spirit of integration, the University will link more strategically its ambitions for research, learning and teaching and engagement. It will pursue opportunities to integrate research, research training, curriculum offerings, eLearning, international engagement, student recruitment, and advancement when forming partnerships.
- > The University will encourage greater public engagement through an emerging precinct around public policy.
- > The University will review and refine its alumni relations strategy.



CHAPTER 5 WHO DO WE TEACH?

The composition of our student community shapes the University's character and ambitions, and reflects the wider policy environment. In 2013, some 40,504 equivalent full-time students (EFTSL) studied at the University of Melbourne.

Of these students, 55 per cent studied undergraduate programs, while 45 per cent undertook graduate studies. Five years ago, approximately 72 per cent of our students were enrolled in undergraduate programs, and 28 per cent were in graduate programs. By 2015, undergraduate and graduate students will be roughly equal in number across the campus.

The University's international student profile has remained broadly constant over recent years, comprising 29 per cent of EFTSL in 2013. Given a downturn in international student enrolments at Australian institutions over this time, this resilience affirms the University's standing abroad. International student fees nonetheless remain a vital contributor to university revenues. Inherent in the Australian higher education system, therefore, is the pressure for every institution to remain internationally focused.

The size and composition of our student community
— undergraduate and graduate, domestic and
international — significantly influences the University's
operating model and our ability to remain competitive.
It is predicted research universities that fall below a
particular size will face challenges in the future. ¹⁸

Recognising the need to grow the University's research endeavour in order to compete with global peers, the Research at Melbourne strategy set the ambitious goal for Melbourne to become a billion dollar research enterprise by 2025. Our research expenditure, however, is derived partially from teaching revenue because research overheads and infrastructure are not always provided by research funding agencies or through block grants. Hence we cannot research without considering additional revenue through teaching.

¹⁸ Nigel Thrift predicts, for example, that research universities that fall below a particular size (in Britain, those with budgets of about £300– £500 million, or roughly \$494–\$823 million) and that do not focus on specialised academic fields will face challenges. Thrift argues that while size is no guarantee of success, it seems likely that in the future size will become a necessary condition for major research programs. See '2014: a Year of 'Consolidation' in Britain', The Chronicle of Higher Education, 23 January 2014.

'... RESEARCH UNIVERSITIES THAT FALL BELOW A PARTICULAR SIZE WILL FACE CHALLENGES IN THE FUTURE.'

Yet the University of Melbourne elected not to grow its student numbers under *Growing Esteem 2005*. The original strategy was introduced before the demand driven system and worked within the logic of a system of highly constrained growth and fewer opportunities to meet demand.

With overall student numbers now relatively stable and, as the only institution the Commonwealth Government has restricted from further growth, the University must explore other avenues for securing market share in order to reinvest resources in research excellence and the student experience. This raises two important questions as we look to the future: 1) How best can the University engage internationally to gain a greater proportion of the international market? and 2) Is the scale of the University's current student load consistent with its aspirations?

5.1

International visibility

In 2013, the University earned almost \$400 million through revenue from international students. With the economic expansion occurring in the Asia–Pacific region — notably in China and India — this number could grow substantially in the future.

Other universities have been more aggressive in attracting international students, using offshore agents and first-year accommodation guarantees to attract interest. The University relies heavily on rankings to outweigh these factors, but will need to be more strategic to secure a greater proportion of international student load in the future.

Along with targeted recruitment, a broader strategy for international engagement — with a focus in our region — is required. Few campus-based institutions around the world enrol as many onshore international students as the University of Melbourne. The University has long held the ambition to be, and is currently ranked, among the top five universities in Asia.

Despite the ranking, the University has low visibility in parts of Asia compared to some other Australian universities. Indeed, our teaching and research reputation in Asia appears to be declining. Melbourne's research reputation scores in Times Higher Education rankings, as perceived by respondents from Asia, dropped from 48.3 per cent in 2008 to 35.8 per cent in 2011. The teaching reputation score fell from 45.3 per cent to 42.2 per cent in the same time period.

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'IT IS PERHAPS EVEN MORE
IMPORTANT THAT OUR STUDENTS
KNOW ASIA, AND ARE ABLE TO WORK
AND MOVE THROUGH THE REGION
WITH SKILL.'

The presence of University offshore agents in situ is low compared to the national average. ¹⁹ More targeted marketing and profiling of our research and teaching activities may go some way to addressing this issue. Yet nothing works more effectively than a local presence. The University's investment in IJRCs will thus be central to a broader international profile.

It is perhaps even more important that our students know Asia, and are able to work and move through the region with skill. The recent establishment of the Melbourne Asia Research Network — a package of initiatives which build Asia-relevant capabilities through curriculum and enable students to study with partner universities — is a contribution to this ambitious goal.

Online learning adds another dimension to international engagement. The earlier discussion in this paper about online learning identified opportunities for fee-paying professional courses to be offered using the University's new digital platform. This is a new form of international education, since large markets are offshore. Online or blended learning thus presents a viable alternative to creating offshore campuses.

In time, it may become necessary to establish local centres in international locations to support the large number of students who are showing interest in distance study with the University. These centres, in addition to IJRCs, could form the basis of more strategic international engagement. They could position the University to access the best research and industry opportunities, the most talented students, international alumni and donors while promoting Melbourne's brand and profile.

5.2

The question of scale

Notwithstanding the new forms of international education, there remains the question of whether to grow the number of students on campus. The drive to increase scale is a recent national and international phenomenon. The Universities of Queensland, New South Wales and Monash have increased student numbers dramatically in the last five years. UNSW and Monash have each grown by almost 7,000 EFTSL since 2008.

Universities in the United States are now growing quickly, as are universities in China. Even in Britain, long the home of very small universities, success of the University of Manchester since it merged two institutions to form the largest British university is a reminder that long-held assumptions can change quickly.

As an Australian university competing internationally, Melbourne needs significant additional income to lift research expenditure to the level of leading universities in the United Kingdom, for example. Our scale is vital to maintaining our competitive position.

Our campuses have the capacity to expand geographically, but we have limited resources to pursue new capital projects. The University has a healthy balance sheet and potential to borrow if required, but the economics of taking additional Commonwealth Supported Places in large numbers are not obvious.

Yet scale on campus could be expanded by growing domestic fee-paying load, by boosting executive education and by introducing multiple terms. The success of Executive Masters programs in the Faculty of Arts has shown that it is possible to lift enrolments significantly by offering attractive graduate courses.

19 According to the 2012 International Student Barometer (ISB) Survey.

'Online programs and blended Learning offer a more rapid way of Raising Scale, but the delivery of Online education is not without Its own issues of quality and Student satisfaction.'

With a competitive advantage in offering professional education at graduate level, the University also has the opportunity to expand its executive education offerings, linking courses to online programs to secure revenue growth. Building on the University's collaboration with Melbourne Business School, we are exploring closer ties around executive education. This has the potential to strengthen Melbourne's position as a provider of the region's best executive education, while adding to scale.

Multiple terms would provide greater flexibility for teaching all year round and, like executive education, would suit online or blended learning models. A three or four-term year for some courses, for example, could allow graduate schools to align with the Northern Hemisphere academic year.

Some faculties and graduate schools, notably the Faculty of Veterinary Science and the Melbourne School of Engineering, plan for growth in student numbers. Others are keen to explore online and off-campus alternatives. Most of this growth would occur in fee-paying programs, providing a useful revenue stream.

Finally, the quality of the student experience remains central to the question of scale. Without careful planning, increasing scale on campus would put pressure on teaching resources and facilities, and challenge our ambition to provide a transformative student experience. Online programs and blended learning offer a more rapid way of raising scale, but the delivery of online education is not without its own issues of quality and student satisfaction. We have work to do to improve the student experience. Any increase in scale would need to be achieved without a loss of quality to learning and the university experience.

Proposals

- > The University will undertake more targeted marketing and profiling of research and teaching activities to raise its visibility in Asia and internationally. It will explore opportunities for more strategic international engagement through online education.
- To provide the resources to reinvest in research excellence and the student experience, the University will investigate increasing scale, particularly in areas that create net revenue.

CHAPTER 6 MAKING IT ALL POSSIBLE

6.1

People

How does the University achieve its aims to deliver greater impact through research, offer an outstanding student experience in a digital world, and better integrate the strands of the Triple Helix?

The answer lies not just in the goals we set for the institution, but in how we support our people, organise infrastructure, and align resources.

The University of Melbourne is exceedingly fortunate that so many high quality staff choose to work at the institution. Vacancies are keenly contested and many staff dedicate their careers to the students, research and engagement at the heart of campus life. The large number of academic and professional staff who remain with the University on a voluntary basis after retirement illustrates a sense of fulfilment and contribution possible through working at this University.

With some 9,000 staff, a wide array of disciplines, ventures and allied functions, and rapidly shifting technology platforms, it is a constant challenge to find organisational forms suited to such a complex institution. This is particularly the case as new tasks break down old personnel classifications. Online courses, for example, typically involve teams of academics, teaching experts, technicians and production staff. Existing human resources categories struggle to keep up.

A number of challenges follow. For academic staff, career structures have become more complicated as people move across research, learning and teaching and engagement. Creating navigable pathways through career possibilities will require more mentoring and professional support.

'MELBOURNE WILL SEEK TO FOSTER A CULTURE OF INCLUSION, PROVIDING MODERN PLACES ON CAMPUS THAT INVITE PARTICIPATION AND USE WHILE RESPECTING THE SANDSTONE TRADITIONS CHERISHED BY GENERATIONS.'

There is a need to reduce the administrative workloads of teaching and research staff. Mechanisms to address this include creating teams of teaching and research staff, and having more teaching-focused and professional staff to allocate more effectively the load associated with teaching.

Academics also need clear guidelines on acceptable performance and recognition for outstanding achievement. An internationally competitive university must hire the best available staff, and must assess them against global standards. A new confirmation process that rewards successful staff through promotion offers a chance to achieve this clarity of expectations and recognition of performance.

A university is a partnership between academic and professional staff. As academics and students navigate new geographic, disciplinary and institutional frontiers, they walk alongside professional staff who must master the same domains. Ensuring career mobility and progression for professional staff, regular professional development, and clarity on performance expectations, all matter.

A graduate development program for professional staff, a standing recruitment program, and more opportunities for rotation at senior level are possibilities for expanding professional opportunities at the University. A small commission will explore these and other options to support our talented professional leadership.

Finally, the University needs a range of specialist skills not normally found on campus. To develop our industry engagement program, for example, it may be necessary to devise new categories of employment that allow those outside traditional academic and professional cohorts to contribute to the work of the institution.

6.2

Place

If we are to provide inviting campuses amid technological change, life on campus must be vibrant and engaging. The current design of the University reflects an earlier mode of teaching. In the future, there will be less need for large lecture theatres, but much call for multi-use spaces, accessible facilities and a sense the world is welcome inside the University gates.

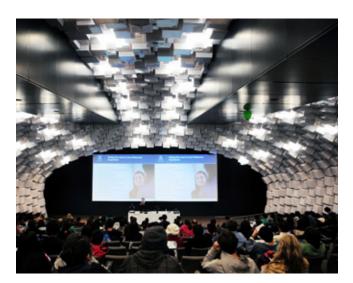
There is potential for our campuses to become more lively '24-hour communities' by harnessing student life, extending the span of operations and creating better linkages between town and gown. The dynamic small business, cafe and laneway culture in Melbourne is in part due to the energy that students bring to the city. We need the same sense of life on campus. This means expanding the range and number of student housing options close to the Parkville campus, working with and drawing from the experience of our residential colleges.

In time, the aim is also to introduce student accommodation for the VCA and the Melbourne Conservatorium of Music on the Southbank campus. Nothing brings a precinct to life like young people and the energy of proximity.

Over the next five years, the University will implement a campus development framework that embraces good design and planning for the digital realm. As a leading university, Melbourne will seek to foster a culture of inclusion, providing modern places on campus that invite participation and use while respecting the sandstone traditions cherished by generations.

Resources

One way to support the integration of knowledge and to promote a culture of inclusion is through precincts. Precincts reach across and beyond organisational boundaries in ways the University could not achieve alone, and form the basis of innovation systems. As described in Chapter 2, the University has an opportunity to contribute to the global reputation of the Melbourne biomedical precinct. Working with foundation partners such as IBM, we aim to build a globally-significant innovation precinct through Carlton Connect. At Southbank, the University is working with the State Government, and arts and cultural organisations to create a nationally significant arts precinct. A precinct around public policy (Chapter 4) would help to raise the University's public engagement profile.



In 2014, the University budget will approach \$2 billion. The test for the University strategy will be to determine whether these considerable resources are dedicated as effectively as possible to the core goals of the tightly bound strands of the Triple Helix. A focus on business procedures, therefore, is about how best to direct maximum resources to research, learning and teaching and engagement.

To achieve this strategic focus, the University adopted the Business Improvement Program (BIP) in late 2013. The Program is predicated on four important objectives: to support academic performance; to improve the student experience; to enhance professional excellence; and to increase efficiency. The aim is to transform the way the University does business by simplifying processes and systems, and freeing up resources to focus on core strategic goals for research and teaching.

There are major gains possible from standardising processes and removing duplication. This requires work across two dimensions — relations between the centre and faculties, and operations within faculties. BIP will address both, seeking to implement fully the philosophy of Responsible Division Management so that decisions are made as close as possible to those they affect.

BIP is part of a larger picture for the University in which a combination of process improvement and new income will generate resources to support the strategic directions of *Growing Esteem 2014*. This picture includes the question to increase scale. It involves financial strategies that respond to the changing environment and are less reliant on government funding.

Philanthropy will serve as another vital plank in realising the strategy. There is recognition across the sector that philanthropic revenue is essential to support more and better research and teaching. Relative to international competitors, the endowment of most Australian universities is modest. As one of Australia's oldest universities with a significant number of prominent alumni and linkages in the wider community, the University's capacity to build a revenue stream from philanthropic activity is greater than that of many of our competitors. The Campaign for the University of Melbourne is off to a promising start, but will require sustained effort over a number of years.

Proposals

- > The University will review all aspects of its academic career framework, including confirmation and promotion procedures. Outstanding academic achievement will be recognised through an expanded academic honours and awards framework.
- > The University will provide better career development opportunities for excellent teachers, PhD students and early career academics to address the challenge of equipping the emerging academic workforce for future careers on campus. It will develop incentives and administrative processes to encourage academics to engage with industry and other sectors.
- > We will seek to reduce the administrative workloads of teaching and research staff by investigating mechanisms such as creating teams of teaching and research staff, and by engaging more teaching-focused and professional staff to allocate more effectively the load associated with teaching.

- The University will introduce a graduate development program for professional staff with more clearly articulated career pathways.
- > A new campus development framework will support a digitally-enabled environment, increased student accommodation (up to 2,000 additional beds) and more community engagement.
- Melbourne will implement the recommendations of a comprehensive business improvement program which aims to transform the way the University does business.
- > The University will build philanthropic support to increase the scale and breadth of endowment funds to support institutional priorities and excellence.

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Conclusion

In perhaps the most famous of his poems, *Tu ne quaesieris*, Horace cautions his young companion to 'carpe diem' — seize the day. He warns that the future is unknown. One should not leave tomorrow to chance, but rather take action for the future today.

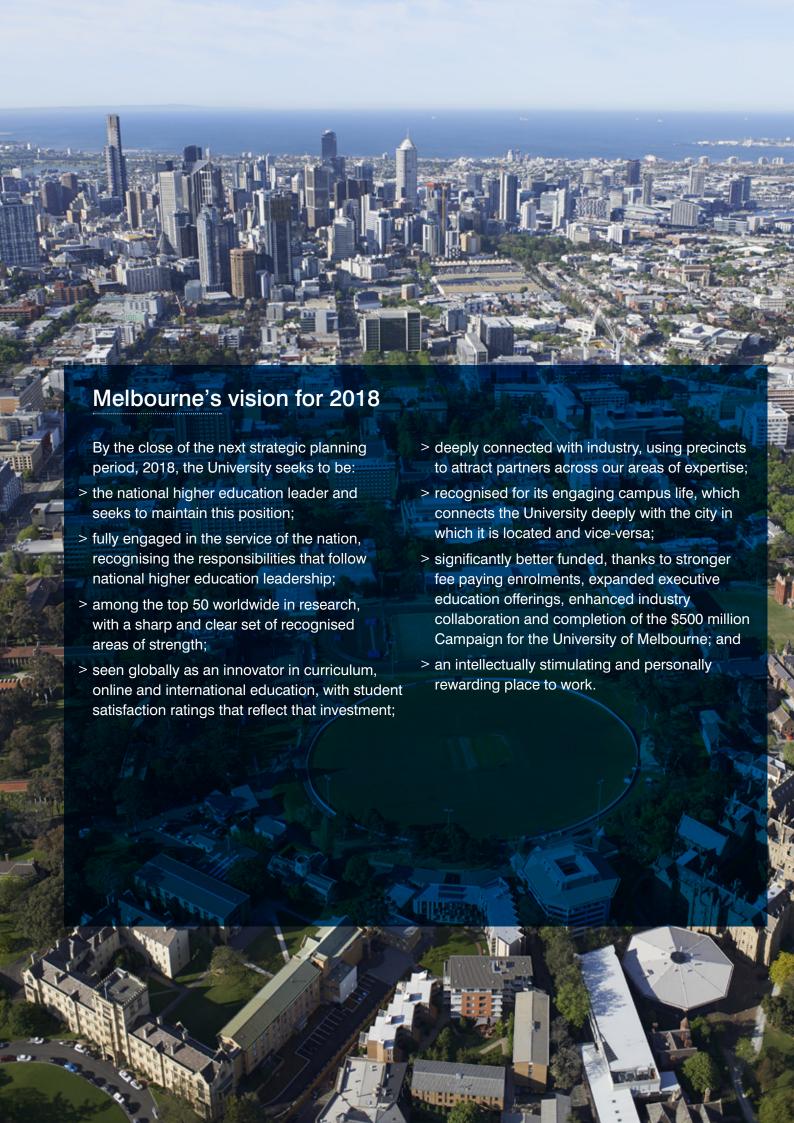
The University of Melbourne has been following Horace for 160 years, and his advice seems more pertinent than ever. The future may be difficult to predict, but we can plan on the basis of reasonable assumptions.

First, this public-spirited research-intensive institution will continue to generate knowledge that addresses the greatest challenges of our time. We will do so by balancing research strengths against the need to demonstrate the social, economic, environmental and cultural outcomes of investment in new ideas.

Second, we will embrace the possibilities of the digital evolution, yet ensure there remains a place for campus-based education. A great student experience will combine the best of blended learning with time spent alongside teachers and peers. As lively places of innovation, international diversity and the latest thinking, our campuses will model the attributes we look for in each graduate.

Finally, all of the University's activities will seek to engage with our city, our peers, fellow researchers and the community that we serve.

Growing Esteem 2005 and Growing Esteem 2010 both stressed that an impressive strategic document without follow-through is meaningless. Strategy is action, not paper. The significant change that followed both documents show the University of Melbourne is prepared to make major change in pursuit of its goals. The same must be true for Growing Esteem 2014, so the University of Melbourne continues to grow further in the esteem of future generations.



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