



THE UNIVERSITY OF
SYDNEY

The University of Sydney

Westmead Academic
Strategy 2018-2022



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Cover image: Dragonfly wing detail.

The dragonfly is an important symbol in the culture of many Indigenous communities, including the Dharug people of western Sydney. Dragonflies indicate healthy, vibrant and active environments, and are often regarded as inquisitive sharers of knowledge. Thus, the dragonfly has been recognised as an important symbol for Westmead. This image details the network-like connections of the dragonfly's wings, just as our strategy is one important part of a network of collaborations between the many communities and organisations at Westmead.

We acknowledge the tradition of custodianship and law of the Country on which the University of Sydney campuses stand. We pay our respects to those who have cared and continue to care for Country.

The University of Sydney

Westmead Academic Strategy 2018-2022

May 2018

Our vision

Together with our Precinct partners we will help make Westmead a global centre of excellence in integrated education, research and healthcare to advance the wellbeing of the people of western Sydney.

Our key objectives are:

- High quality and sustainable healthcare
- Improved health and wellbeing in western Sydney and beyond
- The Westmead Precinct creates and attracts new industries and attracts and develops global talent

Strategy 2018–2022

To build on the transformational accomplishments at Westmead and meet the needs of the communities in which we serve, we will create a novel environment for our collaborations: the **Westmead Living Lab**.

This Living Lab will provide a shared environment to co-create implementable and scalable solutions to real world problems. The key enablers will be a combination of research, innovation and design processes together with data analytics and knowledge translation.

The Living Lab will lay the foundations for a western Sydney campus that offers a unique educational experience closely linked to innovation and transformational and translational research.

We have earmarked the Westmead Innovation Centre, which will be built at Westmead by 2020, as the Living Lab's future home base, with structured support provided through our Westmead Operations team.





Artist's impression of the new 14-storey hospital building and Innovation Centre.





The Living Lab

The Living Lab will be founded on four strategic pillars:

1. Collaborative decision making with our community and partners

The University is integrated with our partners at Westmead and beyond, all of which have no shortage of examples of individual excellence. We will focus on building a new framework for our partnerships, which increases the capacity at Westmead to do things collaboratively, and generate innovative ideas that include a range of disciplines and stakeholders.

2. Inter-disciplinary problem solving and knowledge translation

The Living Lab will foster partnerships in which academics and students from a variety of disciplines work with authorities, citizens, practitioners and/or businesses to co-create, explore, experiment and evaluate new ways of doing things in a real-life context.

3. Data Commons: Mobilising data capacity to enable digital transformations in health and wellbeing

We will champion the bringing together of data from a diverse range of sources; a 'Data Commons'. The Data Commons will be developed in partnership with the precinct to support the transformation of health and healthcare through digital health and data enabled education and research.

4. Precinct focused research and education projects

Our research and education projects will be transformational. They will focus on the core themes endorsed by our Precinct partners and form the building blocks of our broadening scope of academic activities at Westmead. Current themes are diagnostic sciences and technologies, person-centred care, and sustainable health. These themes build on the remarkable discovery and translational research outcomes at the Precinct. Our education projects will contribute to the development of a workforce able to shape and deliver health and healthcare systems of the future.

Setting the scene

The Westmead Precinct is undergoing development that will involve expenditure in excess of \$1 billion. This redevelopment will result in Sydney having one of the largest and most integrated precincts focussed on health and wellbeing in Australia. It also provides an opportunity to transform an array of innovative networks that combine excellence in research, education, and practice into a large scale, world renowned Living Lab concerned with health and wellbeing. The Living Lab will build on the University's collaborations in the precinct since its inception.

This Westmead Academic Strategy will guide the University's engagement with other partners involved with the Precinct redevelopment – the hospitals, research institutes, pathology service, and many others including the Western Sydney Primary Health Network. All have committed to developing a new type of partnership over the next three decades, building on long-standing relations. The partnership is driven by a common commitment to ensure impending investments do not just modernise 'business as usual', but rather establish more sustainable and appropriate health and associated services for the populations supported by the precinct partners.

The University has committed to involving all disciplines – not just those that are health related – to contribute to this venture.

In short, this strategy proposes a redefinition of the University's institutional framework to help the Westmead site scale up its interdisciplinary operations into what we call the Westmead Living Lab, and nurture a Living Lab culture amongst all Precinct partners and their associated constituencies.

The academic initiatives in this strategy have been developed from work underway for several years now, and which culminated in a Green Paper developed following a university retreat in 2017.¹

The University has now resolved to embark on a major expansion, based geographically around Parramatta-Westmead. Our presence in western Sydney will build gradually over the coming decades, with initial projections at Westmead to include 6000 students by 2030.

Ventures such as this are rare and formulating a strategy that engages and inspires the largest possible range of people and organisations is difficult. The initiatives are proposed over the next four years, but importantly aim to establish the partnerships and operating model for the next thirty years or more.

Changing with western Sydney

The University recognises the immediate and longer-term growth trajectory in western Sydney and the demands confronting services including health, employment, transport and accommodation. In particular, Westmead must plan to help serve an additional million people in the next 15 years². Australia's health system faces serious challenges to quality and financial sustainability due to growing consumer expectations, increasing costs, the ageing of the population and its growing burden of chronic diseases. These challenges can only be overcome if the University in collaboration with health providers, industry and government explores different approaches to health and wellbeing.

The Westmead Precinct serves western Sydney which has one of the most culturally diverse populations in Australia including the largest urban Aboriginal and Torres Strait Islander population. The co-location of four hospitals at Westmead, linking with other hospitals and primary health care sites in Sydney and regional NSW, along with diverse communities and provision of education and research inputs, provides an unparalleled opportunity to integrate workforce education and knowledge creation with all aspects of health care in new ways. Greater Sydney Commission's vision is to transform Parramatta CBD and Westmead into an Education and Health Super Precinct that is a "proud health city and international innovator"³

If the University, in collaboration with our Precinct partners and the community, can commit to pursuing a clear academic strategy, then outcomes of truly global significance are achievable.

² Westmead Innovation District: Building western Sydney's jobs engine. Strategic Vision 2016-2020, Westmead Alliance 2016
³ GPOP Greater Parramatta and the Olympic Peninsula, Our true centre: the connected, unifying heart, Greater Sydney Commission, Oct. 2016

Strategic Initiatives

Pillar 1. Collaborative decision making with our community and partners

We have already begun the first steps to strengthen partnerships, building on the University's involvement in establishing Westmead Hospital 40 years ago, the Westmead Research Hub 14 years ago, and the Westmead Precinct Education Hub in 2017.

The University is one of the principal partners in these hubs. Throughout their existence, these hubs have fostered the sharing, coordination, creation, implementation and evaluation of new education and research approaches. They also enable the sharing of facilities at Westmead. The University is also part of the recently established Westmead Alliance, formed by Westmead Precinct partners to drive investment and deliver on the government's policy to transform Westmead into a globally competitive Innovation District by 2036.

The coordination of the diverse and multiple activities associated with the Westmead initiative will be facilitated by an overarching Workforce Development, Education and Research Agreement. This agreement will ensure Precinct operations continue whilst the precinct explores far-reaching reforms to funding models, models of care and associated workforce reform. This agreement will emphasise inter-disciplinary solutions to complex problems, including a focus on prevention and community engagement; and be reviewed at least annually. Its success will be demonstrated by the success of the initiatives in this strategy.

We will also continue to build on the strong links we have established between our existing multidisciplinary initiatives and Westmead, including the Charles Perkins Centre, the Marie Bashir Institute, Westmead Applied Research Centre, the Centre for Translational Data Science, and the Brain and Mind Centre each of which already has a presence at Westmead.

Key initiatives for 2018-2022 include:

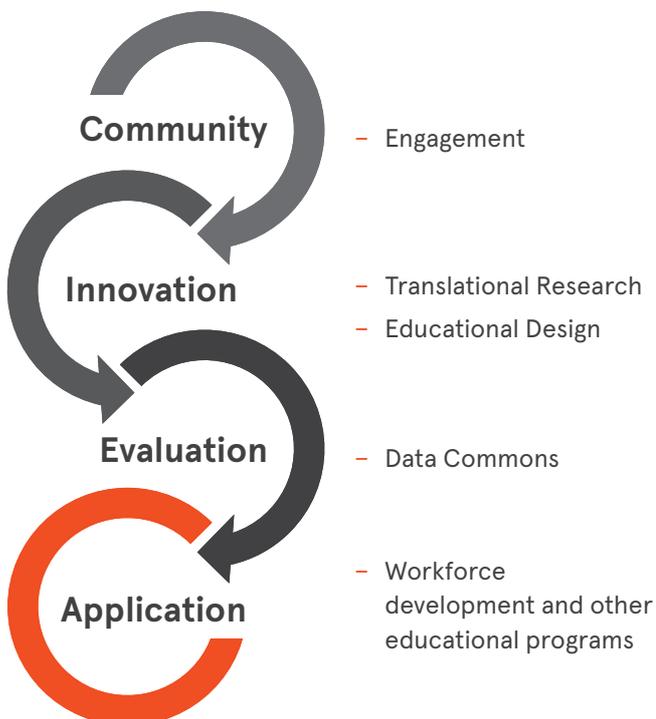
- 1.1 Convene a Living Lab taskforce to establish the academic framework and business model for the Westmead Living Lab
- 1.2 Appoint a Director of Research and Innovation, Westmead to lead the Living Lab
- 1.3 Work with our partners to establish partnership agreements for the Westmead Precinct
- 1.4 Support and explore the academic and business model of the Westmead Fertility Centre as a new model for integrated research, education and healthcare
- 1.5 Work with the local Aboriginal and Torres Strait Islander communities, Precinct partners and our Indigenous Strategy and Services portfolio, to develop and implement education and research activities to improve health and wellbeing.

Pillar 2. Inter-disciplinary problem solving and knowledge translation

The Westmead Living Lab will be modelled on the concept of an Engagement-Innovation-Evaluation-Application cycle to foster engaged and innovative translational and transformational research and its application and upscaling through educational activities. The Living Lab will foster partnerships in which academics work with authorities, citizens, practitioners and businesses to co-create, explore, experiment and evaluate new ways of doing things in a real-life context.

The Westmead Living Lab will become a hallmark of the University's overarching education strategy. The University aims to create a distinctive Sydney education with opportunities across the student lifecycle to work in interdisciplinary settings that are integrated with our Precinct partners. These initiatives will transform our campus at Westmead into a contemporary, innovative and flexible learning environment. Initiatives include a new interdisciplinary applied medical science stream and multidisciplinary project offerings that draw on expertise across a breadth of disciplines and develop new workforce capability.

The Westmead Living Lab



Key initiatives for 2018-2022 include:

- 2.1** Establish a core facility in innovation technologies at Westmead to support research and education projects in health and wellbeing on the Precinct
- 2.2** Work with our Precinct partners on interdisciplinary transformational research and educational projects, that link with industry and community and, that are based on real issues in line with the new curriculum and desire to make an impact
- 2.3** Develop postgraduate, post-registration and continuing professional education at Westmead to meet local industry and community needs
- 2.4** Create a Westmead campus experience for students and staff across the Precinct that supports collaboration across disciplines
- 2.5** Appoint a Director of Multidisciplinary Education to lead development of curriculum offerings including in the areas of applied medical science, engineering, design, arts, law and business that support a multidisciplinary approach to health and wellbeing
- 2.6** Appoint a Professor of Clinical Education to work in partnership with the local health districts to develop a culture of innovation, with a focus on filling future needs in the health professional workforce

Pillar 3. Mobilising data capacity to enable digital transformations in health

There is a global priority to transform healthcare and promote wellbeing to counter the unsustainable growth in health expenditure, manage the rising burden of chronic disease, provide a person-centred approach and improve consumer outcomes and experience as well as staff satisfaction. There is growing evidence that digital health can significantly contribute to the required transformation, but there are few examples of how this can be achieved at scale and across services and communities. Digital health refers to the impact of communication technologies, mobile applications and devices, data science and informatics on health and wellbeing and healthcare delivery.

We have already begun with the establishment of a Westmead node for the Centre for Translational Data Science and will continue through the establishment of formalized digital health collaboration frameworks, academic appointments in digital health, and the creation of education programs to support the upskilling of health students and existing workforce. This will include the creation of foundation or entry level digital health courses as well as advanced qualifications for emerging digital specialists from both health and IT backgrounds. Such courses will articulate with masters and PhD programs.

Key initiatives for 2018–2022 include:

- 3.1** Work with our health and research partners to create an accessible data commons to support the Living Lab and broader research projects
- 3.2** Develop interdisciplinary education and research in eHealth and data analytics

Pillar 4. Precinct focused research and education projects

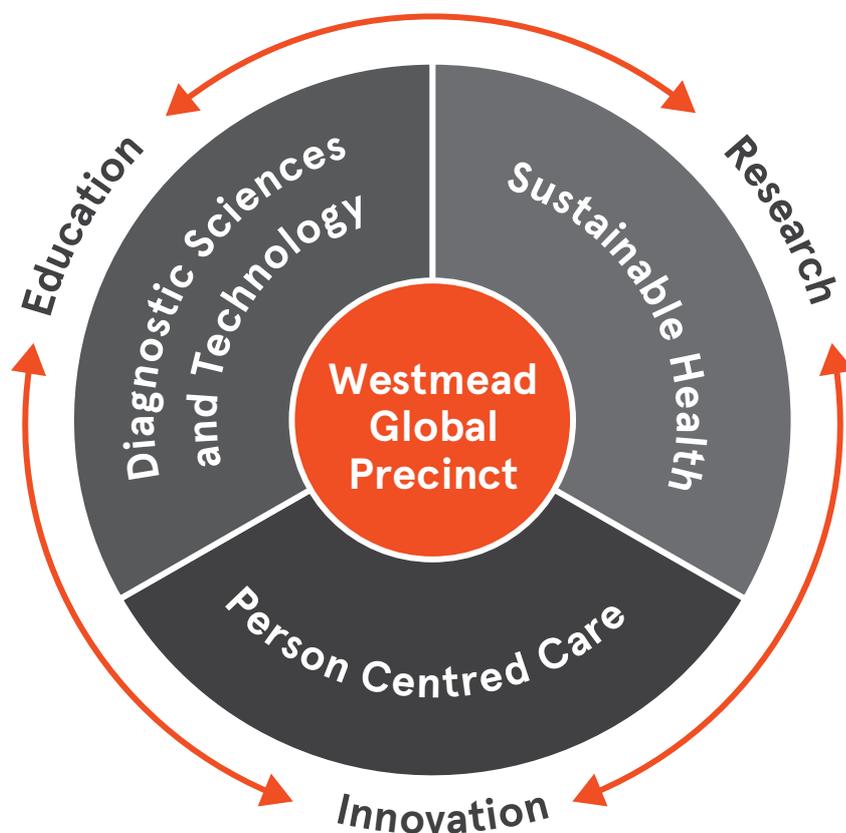
The core themes endorsed by our Precinct partners on which the Living Lab will focus in 2018–22 as the building blocks towards our broadening scope of academic activities at Westmead are diagnostic sciences and technologies, person-centred care, and sustainable health. There is capacity and capability in these areas and it continues the Precinct's outstanding transformational and translational research activities. We will focus on projects that provide a pilot for scalable health and wellbeing solutions in the community and evolve into sustainable education programs embedded in the Precinct.

Diagnostic Sciences and Technologies

The goal of ensuring that every person is offered “the right care, at the right time and in the right place” requires that the patient and the health practitioners who are advising them have access to all the data that are relevant to making the right decision. Achieving this goal requires major technical advances that will necessarily involve the collaboration of patients, health professionals, scientists, engineers, public health experts and experts in the data sciences. The Westmead Living Lab provides the framework to advance diagnostic sciences and technologies and to disseminate and promote outcomes that will enhance patient care.

Person Centred Care

The development of the capacity to ensure that health care decisions are optimal given the biological, social and environmental aspects of the patient and the disease(s) being treated is at the core of the person-centred care agenda. The person-centred care agenda also requires the capacity to analyse and restructure the health system so that its default mode of operation is to support optimal person-centred care, rather than optimising other care models. Achieving this will require innovative changes in the ways in which hospital services interact with patients and health professionals in the community. It will also require significant changes in the ways in which the various health professions are trained and interact, as well as greatly expanding the range of people and professions involved in innovation in the health system.



Sustainable Health

To promote health in its broader community, a tertiary referral hospital needs to expand beyond its traditional role as the location for procedures that are not appropriate in other settings. It must develop the capacity to support the development of interventions at a population level within its community to enhance equity and value for money in the support of good health. Developing such interventions will require building on the knowledge gained through the diagnostic sciences and technologies and person-centred care initiatives. It will also require the application of expertise in health literacy, health services research, engineering and the social sciences such as organisational science, network theory and systems theory to achieve its objectives. Importantly, we will work with community based organisations to support and implement sustainable health.

Key initiatives for 2018-2022 include:

- 4.1 Establish a Multidisciplinary Initiative in Healthcare Engineering
- 4.2 Establish a Design Innovation Lab at Westmead
- 4.3 Establish a Centre for Advanced Diagnostics and Prognostics
- 4.4 Establish a Prevention Unit to design and test models for keeping people healthy and out of hospital to reduce the burden on western Sydney's tertiary health system

Beyond 2022

By 2022 the University's Westmead Campus will have expanded into a truly multidisciplinary campus, with researchers and students from all faculties working in unique interdisciplinary projects that focus on addressing community and health challenges.

Our infrastructure will support new programs embedded in the Precinct, and provide the foundations for continued expansion of our research and educational activities and student numbers in a contemporary learning environment. In line with the University's overarching strategy, our campus will be for the benefit of the local community and wider world, with students and researchers playing an integral role in the development of new ideas for health and wellbeing.

Our Academic Strategy focuses on what will happen over the next four years. This, however, is only a prelude. The key objective is to ensure that by the end of this period all partners – and a host of new ones – are prepared to embark on more far reaching experimentation and change. The Westmead Living Lab will provide a platform for ongoing testing of new approaches to partnerships, education and research – as well as academic organisation and administration associated with supporting these core activities. It will be a key component and foundation for the University's Western Sydney Strategy.



“Together we will make Westmead a global centre of excellence in integrated education, research and healthcare to advance the wellbeing of the people of western Sydney.”

Westmead Initiative

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