



Liverpool
Innovation
Precinct

INVESTMENT

PROSPECTUS

**TRANSFORMING OUR CITY
IMPACTING THE WORLD**



ACKNOWLEDGEMENT OF COUNTRY

The Partners of the Liverpool Innovation Precinct acknowledge and pay respect to the Cabrogal People of the Darug Nation as the Traditional Custodians of the land on which we operate. We acknowledge that this land was also accessed by peoples of the Dharawal and Darug Nations.

CONTENTS

WELCOME TO LIVERPOOL	5
Foreword from the Co-chairs and Mayor	5
Liverpool Innovation Precinct – Vision and Partners	6
<i>Your Centralised Port of Call</i>	8
Liverpool a place to live, work and achieve your business and research goals	10
<i>Liverpool Now</i>	12
<i>Our People</i>	14
<i>Investment and Development for our Future</i>	16
LIVERPOOL INNOVATION PRECINCT – TRANSFORMING OUR CITY, IMPACTING THE WORLD	18
<i>Health - Leaders in Health</i>	20
Liverpool Health and Academic Precinct	21
New Private Hospital	22
<i>Research - Translational Research</i>	24
Ingham Institute for Applied Medical Research	25
Research with Local, National and Global Impact	26
<i>Education - Integrated Education</i>	30
Lifelong Learning	31
<i>Innovation - Collaborative Innovation</i>	32
From Idea to Commercialisation	33
Industry Exemplars	34
<i>Connectivity - Seamless Connectivity</i>	38
Next Generation Transport	39
Proud Member of the Global Network of Innovation Districts	40
Connect With Us Today	44



WELCOME TO LIVERPOOL

FOREWORD FROM THE PRECINCT CO-CHAIRS AND MAYOR



David Borger
*Executive Director,
Business Western Sydney*



Amanda Larkin
*Chief Executive,
SWSLHD*



Ned Mannoun
Liverpool Mayor

Welcome to the Liverpool Innovation Precinct situated in the heart of Liverpool's Central Business District (CBD). We invite you to join established experts, respected academics and pioneers of healthcare and medical research, to build a world-renowned innovation precinct here in Liverpool.

The Precinct is a powerhouse of health, education, research and innovation for the local and national economy. Our proposal offers you and your business a unique pathway to accelerate your business goals and research outcomes through collaborative innovation.

Liverpool is a unique and diverse part of Sydney. In recent years, our city centre has undergone a monumental transformation. We have a culturally and linguistically diverse population and a skilled, educated, and ambitious workforce ready to take business to the next level.

Liverpool is emerging as an international centre of world-leading health and research and is located adjacent to the new Western Sydney Airport, opening in 2026. As part of its wider strategy, the Precinct is expanding its footprint across the spectrum of public and private healthcare services, with significant new investment in health and research infrastructure.

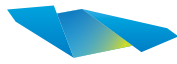
We are delighted to share this ambitious vision for a collaborative and innovative Precinct, and we encourage you to join us on this journey into the future. Investors today have a genuine opportunity to make an impact – to invest in a new era and to significantly contribute to the local, state and national economy.

Liverpool has what you need to power your innovative business.



**Liverpool
Innovation
Precinct**

STEERING COMMITTEE:



Ingham Institute
Applied Medical Research



SUPPORTED BY:

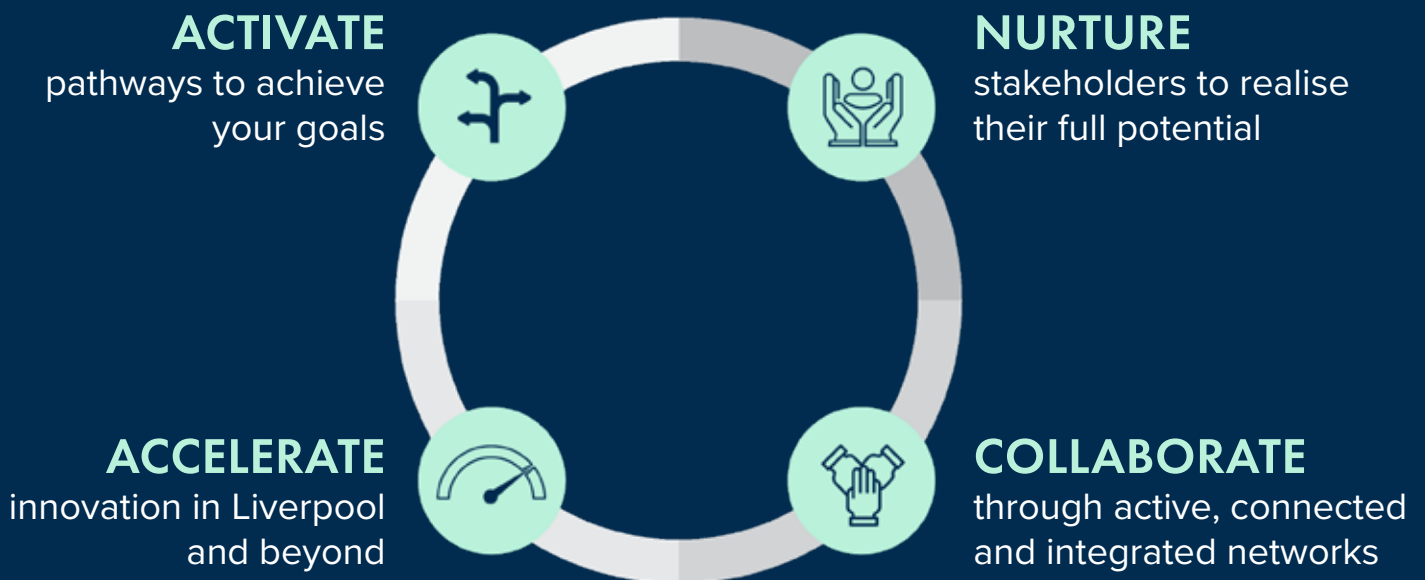


A MEMBER OF:



OUR VISION

Transforming our city and impacting the world through *health, education and research innovation*.



OUR OBJECTIVE

Advance your enterprise goals and research outcomes through collaborative innovation and commercialisation in the heart of the Liverpool CBD.

YOUR CENTRALISED PORT OF CALL

The Liverpool Innovation Precinct can provide you with a one-stop solution to work with our member organisations and partners.

By bringing together key stakeholders from across government, education and business sectors, we are uniquely placed to facilitate your investment into Liverpool.

Through our partner landscape including multinationals, startups, technology development, industry and manufacturing along with our steering committee, the Precinct can facilitate your investment through one door.

Lance Chia our Director, Investment & Innovation can guide you through investing in innovation right in the heart of Liverpool. You can contact him on (w) 02 8711 7602 (m) 0436 914 551 or ChiaL@liverpool.nsw.gov.au.



Examples of Liverpool Innovation Precinct Partners

MULTINATIONALS

HITACHI
Inspire the Next



SAMSUNG

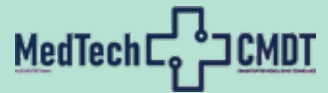
Johnson & Johnson
INNOVATION

Corindus
A Siemens Healthineers Company

PROGRAMS



TECHNOLOGY DEVELOPMENT



INDUSTRY & MANUFACTURING

W&S Plastics



CIRCUITWISE

STARTUPS



LIVERPOOL

a place to live, work and achieve
your business and research goals





LIVERPOOL NOW



A young, growing population

The median age of Liverpool residents is 34 and there are more families with children compared with the rest of Sydney



Education

Leverage from integrated education models across key life stages



Key economy

Health, research, education and manufacturing industries produce significant investment opportunities



Linked transport and logistics

Industries are connected to key markets via established transit and freight networks



Strategic Location

35km from Sydney's CBD 18km from Parramatta. Adjacent to the Western Sydney Airport (22km)



Key sites around Liverpool

-  Moorebank intermodal
-  Advanced Manufacturing Research Facility
-  Liverpool Hospital
-  Woodward Place
-  Liverpool Civic Place
-  Fifteenth Avenue Smart Transit (FAST) Corridor



Land available

Cost-effective and significant greenfield and brownfield real estate opportunities are available in Liverpool and its surrounds



Cultural diversity

More than 150 languages are spoken by residents of Liverpool



Aboriginal community

The median age of Aboriginal residents is 21 and there are more than 3000 residents with Aboriginal or Torres Strait Islander origins

OUR PROFILE - AT A GLANCE

POPULATION



150+
languages spoken in the region

In 2021,
48.8%
of the Liverpool City Council
population were born overseas

compared with
43.2%
in Greater Sydney



Population Estimate

234,917
(ABS ERP 2021)



↑ = 10,000

Population Forecast by 2041

386,646
(ABS ERP 2020)



↑ = 10,000

Population Growth



1.6%
GROWTH
2020-2021

Land Area



30,552 HA
(306 KM²)
(ABS ERP 2020)

**Young population.
Strong Workforce**



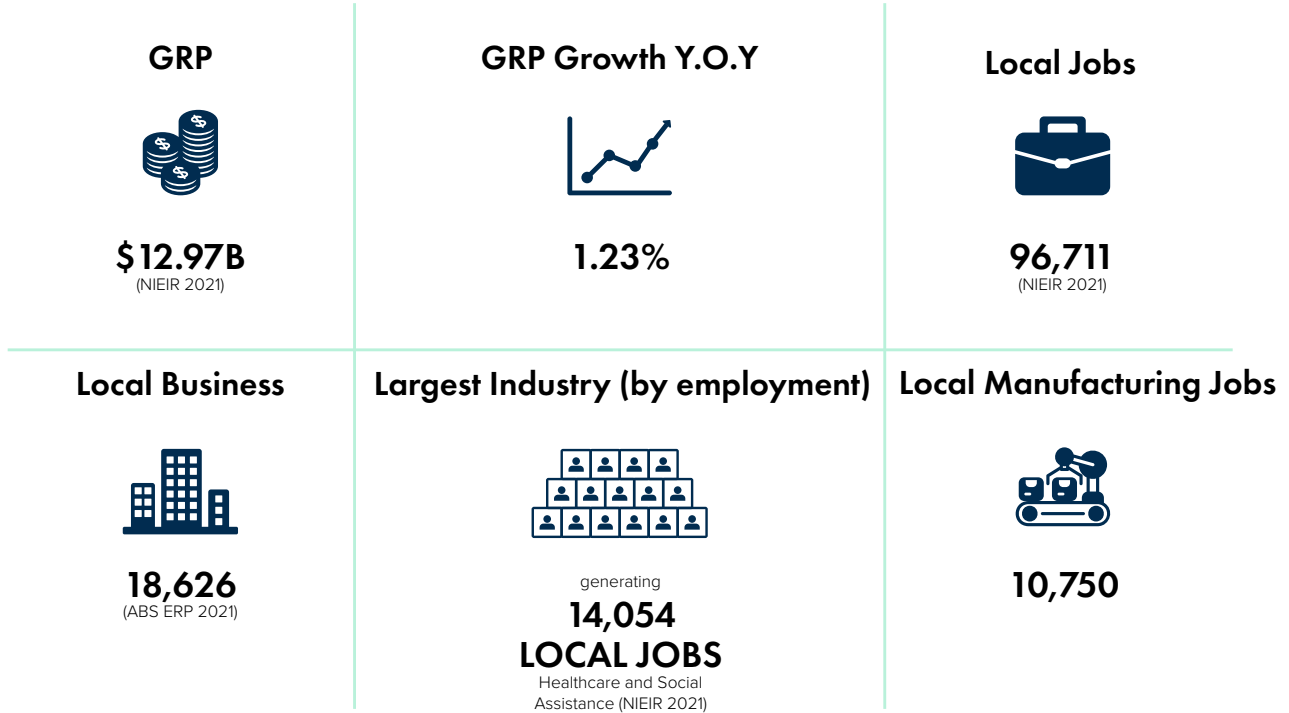
MEDIAN AGE
34
(ABS CENSUS 2021)

Population Density



768.9 PERSONS
PER KM²
(ABS ERP 2021)

ECONOMIC



Employment – Dominant Sectors

	Liverpool	Greater Sydney	NSW
Healthcare & Social Assistance	14.5%	11.9%	13%
Construction	9.6%	9.3%	9.6%
Retail	13.4%	9.4%	9.7%
Manufacturing	11.1%	6.6%	6.7%

Employment – Emerging Groups

Healthcare & Social Assistance



Education & Training



Manufacturing



Construction



INVESTMENT AND DEVELOPMENT FOR OUR FUTURE

Once-in-a-lifetime investment is being made across Liverpool's amenities and infrastructure.

A total of \$20 billion is being spent on major infrastructure projects:

- Western Sydney Airport (WSA)
- Council infrastructure
- Western Sydney Infrastructure plan
- South West Rail Link
- Moorebank Intermodal
- Liverpool Hospital

Some of the exciting community development taking place includes Moore Point, Liverpool Civic Place and Woodward Place.

Significant and cost-effective greenfield and brownfield real estate opportunities are available in Liverpool and surrounds.





MOORE POINT – BY THE RIVER CITY

Situated just across the Georges River, Moore Point will be connected to the Liverpool CBD by several river crossings offering easy access to transport, shops, health facilities, schools and commercial areas, parklands and riverside recreation.

Moore Point's focus on wellbeing and creativity makes it an exceptional destination for locals and visitors. Work on the first neighbourhoods, the heritage quarter, riverfront walks and open space starts in 2023.

CIVIC PLACE – THE CIVIC HEART OF LIVERPOOL

Civic Place will be one of several major developments in Liverpool's \$1 billion development pipeline, that will anchor and activate the southern end of Liverpool CBD through a mixed-use development.

The new development includes four main buildings connected by plazas and pedestrian links between the new facilities and amenities. The library will be a distinct landmark while a multitude of open spaces provide the community with various public spaces. These allow for a range of activities, from casual interactions to organised public events in amphitheatre-style spaces.



WOODWARD PLACE – FROM PARK TO PLACE

Woodward Place, a 28-hectare site at Woodward Park, will be a catalyst for growth across the Liverpool City Centre.

It will be a place where the community will feel at home, workers will enjoy a parkland setting and residents will have access to a community hub for city life.

Council is developing a masterplan to deliver world-class facilities to support a healthy, connected and diverse population.



TRANSFORMING OUR CITY, IMPACTING THE WORLD

LEADERS IN HEALTH

1. The Precinct is anchored by Liverpool Hospital, a hub of health excellence, research and education
2. \$790 million capital investment to transform Liverpool Hospital
3. Strong clinical training links as a world-class teaching public hospital
4. Established partnerships with eight Australian universities
5. Development of a new academic private hospital



TRANSLATIONAL RESEARCH

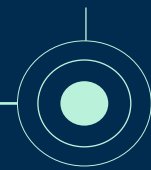
1. The Precinct's Ingham Medical Research Institute is a not-for-profit medical research organisation addressing the needs of Sydney's southwest
2. World-leading medical research conducted in state-of-the-art facilities
3. One institute operating across three integrated centres
4. Significant investment and translational applications of research on local, national and global scales

INTEGRATED EDUCATION

1. The Precinct delivers a unique vertically integrated learning journey
2. 3 world-class universities, 1 TAFE campus, numerous primary and secondary school campuses
3. Active partnerships across educational and training institutions
4. Strong collaboration between industry and educational partners

SEAMLESS CONNECTIVITY

1. The Precinct is growing into a connected seamless transport network
2. Less than 30 minutes to local and international transport hubs
3. Development of fast transport links between Liverpool CBD and the new Western Sydney Airport
4. Connected to major Sydney motorways and freight lines
5. Commitment as a city to be at the forefront of digital technology



COLLABORATIVE INNOVATION

1. The Precinct activates innovative ideas and commercialises opportunities
2. Access to health, education and research networks to support the acceleration of start-up and scale-up programs
3. Partnered or provided mentoring advice to more than 100 industry groups
4. Business growth experts supporting investors with advice and connections
5. An experienced, technologically advanced site for scalable clinical trials
6. Clinical Trials and Phase One Centre inviting and recruiting global partners

LEADERS IN HEALTH



LIVERPOOL HEALTH AND ACADEMIC PRECINCT

A NEW ERA IN HEALTHCARE AT LIVERPOOL HOSPITAL

Liverpool Hospital is one of Australia's largest hospitals and anchors the Precinct as a health and research hub, with industry and academic partners providing world-class translational research, healthcare and training. Liverpool is a teaching hospital of the University of NSW (UNSW Sydney) and Western Sydney University (WSU). The relationship between Liverpool Hospital and university partners allows students to undertake immersive placements as part of their courses. Academic research teams engaged in clinical service delivery are based at Liverpool Hospital as well as undertaking researching as part of the Ingham Institute for Applied Medical Research.

Liverpool Hospital also has very strong training and research links in nursing and allied health through the South Western Sydney Allied Health Research Collaboration (SWSAHRC) and South Western Sydney Nursing and Midwifery Research Alliance (SWS NMRA). Liverpool Hospital partners with eight universities to facilitate opportunities for leading research to embed into clinical practice. This includes: UNSW Sydney, University of Wollongong, University of Sydney, University of Notre Dame Australia, Australian Catholic University (ACU), University of Technology Sydney (UTS), University of Tasmania (UTAS) and Western Sydney University.

The Liverpool Health and Academic Precinct (LHAP) redevelopment is currently underway with an investment of \$790 million from the NSW Government. The LHAP, which sits within the wider Innovation Precinct, represents a significant boost to the local economy and will consolidate Liverpool Hospital's standing as a hub of medical excellence, research and education. Crucially, the investment will allow for expanded clinical services and world-class health services for a population growing at twice the rate of the NSW average. This investment will improve the overall quality of healthcare and enable a more integrated service to the community.

The LHAP project includes:

- An integrated cancer centre (including a dedicated clinical trials and phase one centre, inpatient, ambulatory, diagnostic, outpatient and research facilities)
- Critical care services (larger emergency department, intensive care unit and more theatres)
- Expanded services for women and children (Special Care Nursery and doubled Neonatal Intensive Care Unit capacity)
- Maternity and paediatric inpatient and ambulatory care facilities
- Ambulatory care and outpatient clinical spaces
- Expansion of interventional radiology and day surgery services
- Expansion of haematology services, including bone marrow transplant
- Facilities and capacity for further teaching and research in partnership with industry and higher education partners

NEW PRIVATE HOSPITAL

ADJACENT TO A MAJOR TEACHING HOSPITAL AND RESEARCH INSTITUTES

A planning proposal has been submitted to the NSW and local governments for a new private hospital at Goulburn Street, Liverpool. The proposal is a collaboration to deliver a contemporary private health and education facility across the road from Liverpool Public Hospital, with a pedestrian link bridge connection.

This has the potential to support the existing public hospital and provide A-grade suites for consulting specialists in Liverpool and is a welcome addition to the Precinct and Liverpool itself for the substantial employment opportunities and the amenity it will provide. The health services offered at the site will reflect the services most needed in the region.

The proposed development comprises a 23-storey tower and includes approximately 155 private hospital beds, 9,390m² of consulting and education suites and 353m² for retail uses.





TRANSLATIONAL RESEARCH



INGHAM INSTITUTE FOR APPLIED MEDICAL RESEARCH

The Ingham Institute was imagined and established in October 2012, by business leaders of the Liverpool community to improve health outcomes through translational research.

As a Medical Research Institute, it is unique and enriched by its multiple partners including SWSLHD, WSU, UNSW Sydney, Sydney University, University of Wollongong and UTAS.

The Institute is positioned to play a significant role in determining the future of healthcare. It has established globally competitive research units including:

- Neurosciences, Stroke and Neurointerventional Radiology
- Obstetrics and Women's Health
- Centre for Robotics and Health Technologies
- Orthopaedics and Muscular Skeletal Disorders
- Cancer
- Mental Health
- Cardiovascular Diseases

There has been a significant investment in clinical trials (including commercial trials) and the institute is now acknowledged as a leader in automation, digital health, virtual reality, artificial intelligence, robotics, remote interventional diagnostics and therapeutics and remote learning and mentoring programs.

The Institute has also closely partnered with the South Western Sydney Local Health District in ensuring research is embedded in its clinical practice, supporting a wide range of clinical research including Liver and Gastroenterology, Critical Care, Respiratory Medicine and Auto-immune disease, and contributing to Population Health research.

The Institute actively works with business and industry. This is demonstrated through establishment of the commercialisation unit (COMAG).

ONE INSTITUTE - THREE CENTRES

Together with its partners the Ingham Institute is poised to establish a new model, with one institute operating across three integrated centres at Liverpool, Macarthur and Bankstown. This model will streamline research across South Western Sydney and will avoid waste and duplication while accessing the diverse and growing community of more than one million residents.



RESEARCH WITH LOCAL, NATIONAL AND GLOBAL IMPACTS

A challenging and vibrant research culture is at the heart of Liverpool. The significant improvements we have seen in health and healthcare delivery over time have been led by research. Across the spectrum of environmental health, disease prevention, diagnosis and treatment, researchers have transformed the way we, as healthcare providers, care for our consumers and community.

Significant investment in the development of research for SWSLHD has resulted in impacts on a local, national and global scale. SWSLHD has grown into an organisation with an international reputation for health and medical research across diverse fields including:

- Neurosciences, Stroke and Neurointerventional Radiology
- Obstetrics and Women's Health
- Centre for Robotics, Medical Devices and Health Technologies
- Cardiovascular
- Cancer
- Medical Devices





INTERVENTIONAL NEURORADIOLOGY

Professor Mark Parsons, a global stroke researcher and lead neuroscientist at Liverpool Hospital and the Ingham Institute for Applied Medical Research, is leading visionary and impactful research in the mobile and remote stroke care space. This includes:

- Exploring the fastest way of treating a patient with a stroke, which is secondary to a blood clot. It is doing this by developing the plans for a stroke ambulance that has diagnostic and therapeutic potential to bring the patient to the treatment centre as soon as possible. This includes partnering with Technion in Israel to design the specialised stroke ambulance of the future.
- Pioneering the use of 5G technology for remote diagnostic and interventional therapeutics to allow the patient to be treated remotely from a specialist centre.

Importantly, the unit has links to the Centre for Robotics and Health Technologies to incorporate the use of machine learning and artificial intelligence in assessment and diagnosis of the stroke patient.

OBSTETRICS AND WOMEN'S HEALTH

The SWS Obstetrics Research Unit is managed by a world renowned multi-disciplinary team, led by Professor Jon Hyett. This unit is making significant improvements in obstetrics with an extensive range of research projects and clinical trials focusing on:

- Early, innovative diagnosis and assessment at 12 weeks gestation with personalised predictions of risk to facilitate earlier risk-stratified access to antenatal clinics. This helps with the prevention of common and serious pregnancy complications such as pre-eclampsia, fetal growth restriction and pre-term complications that can cause pregnant women to experience high blood pressure and liver or kidney damage. The research will be done in a multicultural and patient-centred way using the latest smart-phone technology.
- Investigating how to address iron deficiency in pregnancy.
- Testing whether a new mobile phone application can help women identify risks to their pregnancy and seek earlier referral to antenatal services.
- Understanding, managing and preventing pre-eclampsia through research by the Women's Health Initiative Translation Unit (WHITU).





CENTRE FOR ROBOTICS, MEDICAL DEVICES AND HEALTH TECHNOLOGIES

Business has led the way in the commercial application of automation, robotics and technologies in diverse industries such as manufacturing, cargo handling, hospitality and agriculture. By comparison, medicine and health were relatively slow adopters.

It is now acknowledged that health can benefit from this approach to improve consistency in quality, output, productivity and cost effectiveness. Liverpool Hospital was one of the first public hospitals in Australia to develop a program evaluating and assessing Robotic Surgery. This has led to the establishment of the Ingham Centre for Robotics and Health Technologies in 2019.

One of the Centre's main objectives is to break down the silos that exist in health technology research. The Centre is unique in bringing together a growing number of clinicians, engineers, scientists, academics and industry partners, to develop and evaluate potential health technologies.

The evaluation process includes assessing cost-effectiveness. The key areas of focus include robotics, remote interventional procedures, remote imaging and sensing devices for diagnostics, remote interventional therapeutics (stroke and cardiac), connectivity and telehealth, machine learning, virtual and online learning, tele-mentoring, artificial intelligence (AI), virtual skills acquisition and automation in health services.

The Ingham Institute has recently expanded the Centre to include Medical Devices. This Centre will utilise existing expertise and capabilities in areas such as clinical trials, robotics, and digital health technologies to support the development and evaluation of medical devices. The Chief Scientist identified such a gap in the Australian medical device market.

The Centre for Medical Devices provides a unique opportunity to develop a vital global centre for medical devices in Australia. The Centre will draw on its many collaborations and partnerships with researchers, start-ups, universities, and multinational companies to bring the best minds together with the common purpose of improving health through the development of medical devices.

To ensure these medical devices translate into everyday solutions, the Centre will use its commercialisation partners and internal skills.

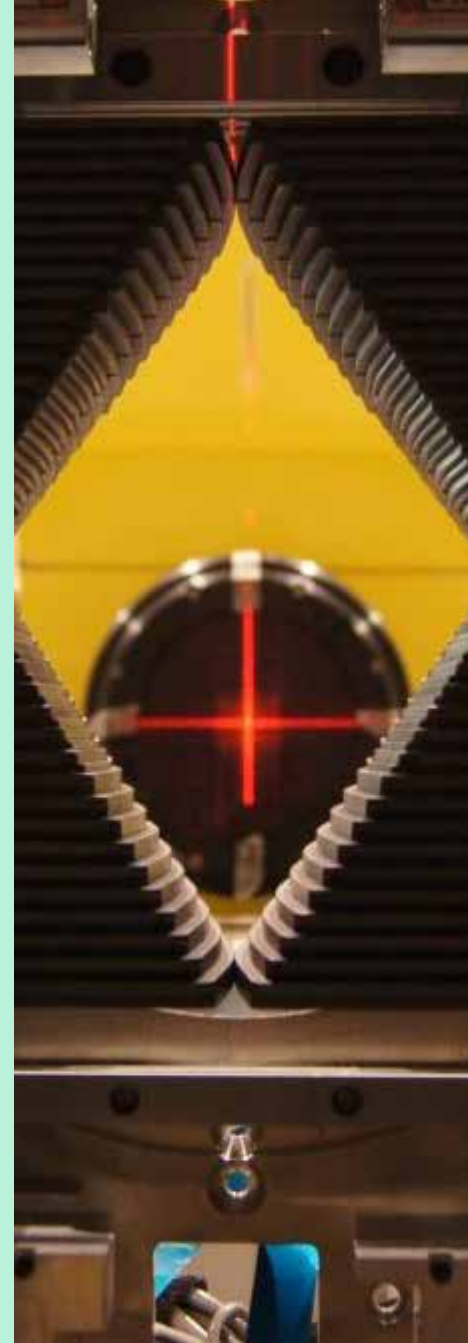


CANCER

Liverpool Hospital Cancer Centre is one of the largest of its kind in Australia and is acknowledged for outstanding clinical services and innovative research. The Centre enjoys partnerships with some of Australia's leading universities and the Ingham Institute. The redeveloped Liverpool Hospital will have a new cancer centre with a 16-bed clinical trials centre.

Significant research outcomes have been achieved in both radiation and medical oncology.

- Importantly, a leading psycho-oncology research unit has been established. PROMPT-Care, the first Australian fully integrated eHealth platform utilising patient reported outcomes to inform real-time clinical care and self-management of cancer survivors, has been implemented in four cancer centres. There are plans for further district rollout across all public cancer centres in NSW.
- The circulating tumour cell laboratory at the Ingham Institute has been involved in cutting-edge research to identify cancer cells in patients' blood. This new technology has both diagnostic and therapeutic implications.
- The Australian MR-Linac Program has led the way in understanding the basic science required for the precise delivery of radiotherapy with magnetic resonance. Clinical trials of this new technology are about to commence.
- The medical oncology arm of the Cancer Centre has been involved in numerous researcher and commercial-led clinical trials and developing an understanding and potential use of immunotherapy.
- New drugs are being developed and trialled for both pancreatic and prostatic cancer.
- The Centre has developed protocols for real-time monitoring of eHealth records



CARDIOVASCULAR

Cardiovascular disease is a major health burden in Australian men and women. Liverpool Hospital is expanding its research in cardiovascular diseases with cutting-edge technology, including remote interventional technology (5G connectivity), in partnership with leading cardiac research institutes, and universities.

Over the past 18 months, negotiations have been undertaken between the Victor Chang Institute, Ingham Institute, UNSW and SWSLHD to appoint a Professor of Cardiovascular Research, which will enhance research capacity and potentially have a significant impact on health outcomes in South West Sydney and beyond.

As part of the establishment of this academic unit, there are significant plans for a major expansion of cardiovascular research.

INTEGRATED EDUCATION



LIVE, LEARN, WORK LOCALLY

LIFELONG LEARNING

Our Liverpool Innovation Precinct partners collaborate to bring you the next generation of skilled, knowledgeable, local talent. Together, we are poised to redefine, accelerate and model the new standard of education.

The Precinct is different because we:

- **Leverage a unique vertical model of education**, where early learning, schools, universities, as well as vocational and tertiary education, work in partnership to enable innovative local study pathways that meet future workforce needs of the region.
- **Ensure greater partnership between industry and educational providers** so we can meet local workforce needs and address new and emerging skill requirements.
- **Commit to lifelong learning, career development and person-centred learning** for Precinct staff and our collaborating partners.
- **Offer transformative and innovative models of education** made possible by the unique clustering and collaboration of leading education providers.
- **Create unprecedented opportunities for co-development of educational offerings and shared infrastructure** through the co-location of educational partners within the LIP.
- **Make entrepreneurship a key part of learning** ensuring research translates to clinical practice and commercialisation.

The Precinct is a home for students at any stage of their educational journey. As part of our Precinct, we have:

- **Three world-class universities** – Western Sydney University, UNSW Sydney and University of Wollongong.
- **A research institute** – The Ingham Institute for Applied Medical Research.
- **A TAFE NSW campus**
- **Numerous primary and secondary schools** – All Saints Catholic College K-12 Liverpool and Casula, Liverpool Public School, Liverpool Girls' High School and Liverpool Boys' High School.
- **Several early childhood facilities**
- **Vocational and tertiary training** delivered by Liverpool Hospital and the Clinical Skills and Simulation Centre.

OUR IMPACT

By uniquely clustering leading educational institutions in the Precinct, we work together to deliver a lifelong model of educational excellence.

We aim to build skills and careers, inspire innovation, entrepreneurship and translate research to help our patients and community.

Ultimately, we will deliver the next workforce of Western Sydney.

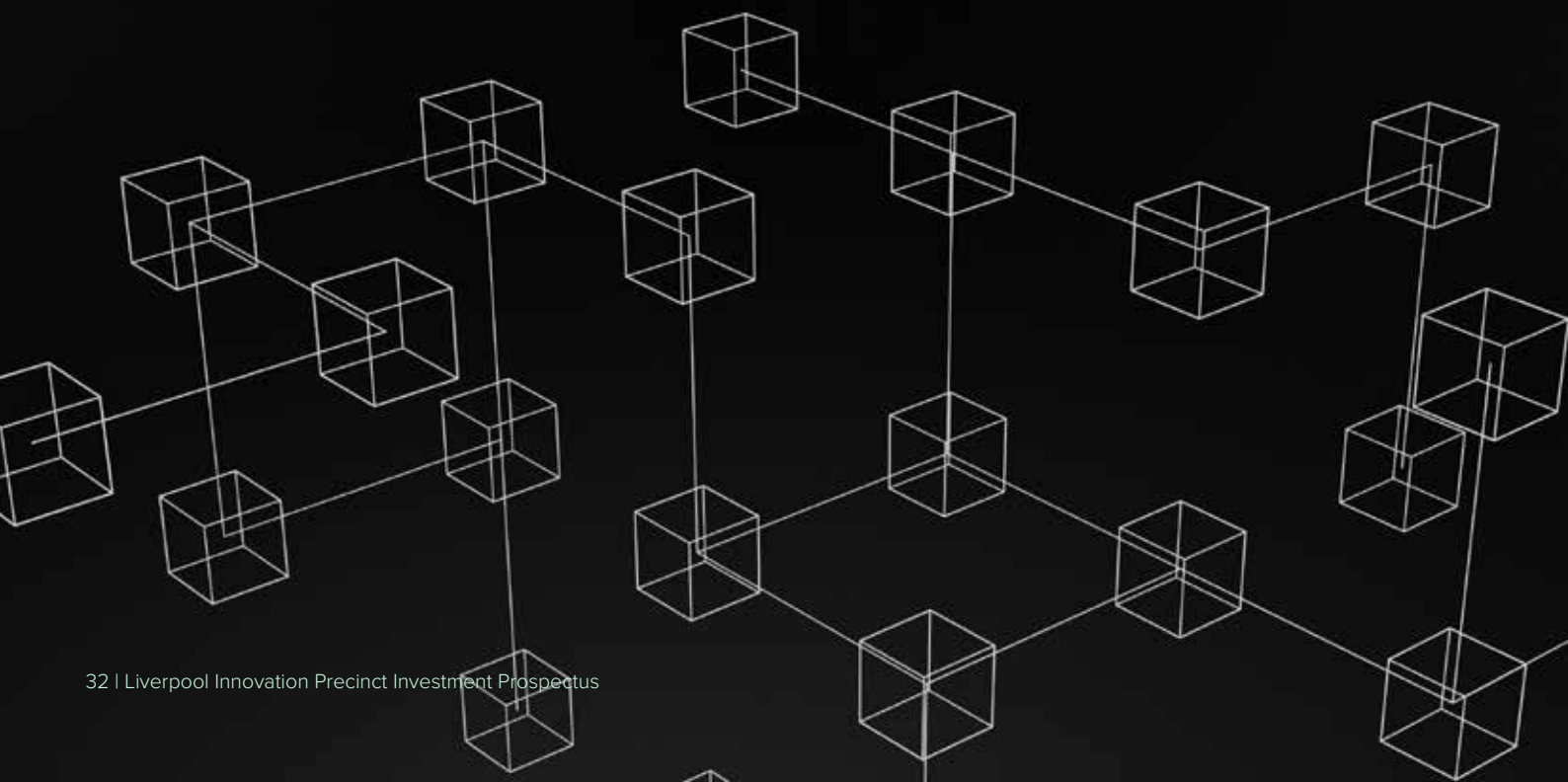
COLLABORATIVE INNOVATION

FROM IDEA TO COMMERCIALISATION

The Liverpool Innovation Precinct is here to help you, whether you're a start-up founder who is already well progressed with your new venture, a researcher deciding to take your first tentative steps to turn your idea into standard clinical practice, or industry striving to deliver technologies that advance healthcare.

Examples of some of the Precinct's many commercial collaborations include:

- **Samsung** development and testing of remote cardiac sensing devices
- **GE Healthcare** radiopharmaceutical production and cyclotron operation
- **Siemens/Corindus** robotic surgery
- **Johnson & Johnson** use of augmented reality for surgical training
- **Atmo Biosciences** clinical trial of ingestible gas-sensing capsule
- **Technion** (Israel Institute of Technology) designing the stroke ambulance of the future



COMMERCIALISATION - CONCIERGE

The Commercialisation Advisory Group (COMAG) has been established to assist companies and individuals to seamlessly work with the Liverpool Innovation Precinct partners. Consisting of clinical, surgical and research director, start-up mentors and experienced ex-multinational industry executives, COMAG provides innovators the support and connections they need on their commercialisation journey. Many start-ups, innovators, small-to-medium enterprises (SMEs), and multinationals have already worked with Liverpool Hospital, the Ingham Institute and other Precinct partners to undertake clinical trials and have tapped into the many areas of experience and expertise that exist among the Precinct partners.

To further support innovators, researchers and industry, the Precinct has formed partnerships with many important third parties to provide advice on quality and regulatory requirements, market assessments, intellectual property, finance and business planning and R&D Tax Incentive (R&DTI) opportunities. The Precinct also has partnerships with a number of well-known venture capital funds.

Partnering with Cicada Innovations, Australia's award-winning deep technology incubator, the Precinct has access to the most experienced, knowledgeable and connected programs in the country for ventures grounded in complex science. The Precinct university partners also provide a broad range of programs such as Founders Health 10X (UNSW), Launch Pad (Western Sydney University) and iAccelerate (University of Wollongong).

THE AUSTRALIA NEW ZEALAND BIOBRIDGE

Established in 2020, the Australia New Zealand Biobridge is a 10-year agreement between the Liverpool Innovation Precinct and New Zealand's Consortium for Medical Device Technologies (CMDT). It is a collaboration that connects 13 university, hospital, independent and Crown research institutions to benefit both countries by:

- advancing innovative medical technologies and the economic contribution of the medical technology sector
- sparking conversations and building anchored science partnerships for long-term strategic benefits regarding health technology translation and research
- supporting and growing connections by providing workshops and delegation exchanges to connect researchers, clinicians, start-ups and businesses.



CLINICAL TRIALS WITH GLOBAL IMPACT

The Ingham Institute and South West Sydney Clinical Trials Centre is founded on global experience and industry knowledge, complemented by commercial capability and cutting edge technology. The Clinical Trials Centre delivers local and global trials, led by researchers, clinicians and industry partners alike.

Led by an Executive Director with commercial, multinational expertise, the Centre's 65 coordinators and 150 investigators actively work across 500+ clinical trials with 2,500 participants. Current Trials span cancer, stroke, diabetes, palliative care, autoimmune and inflammatory diseases.

Trial participants are drawn from large multicultural populations with European, South-East Asian and Middle Eastern Heritage. This unique regional ethnic diversity provides clinical researchers with a population pool reflecting some of the world's most significant health challenges and global markets.

The redevelopment of Liverpool Hospital includes a dedicated Clinical Trials Centre in addition to the existing Phase One Centre, to allow for its rapid growth.

INDUSTRY EXEMPLARS

W&S PLASTICS – LOCATION, LOCATION, LOCATION

W&S Plastics is an industry-leading, award-winning Australian-based manufacturer of plastic injection-moulded products specialising in components and assemblies for medical devices. It is the largest and most advanced custom injection moulder in NSW, providing an end-to-end service underpinned by the highest quality standards.

“Our base in Moorebank allows us to have transport links to service all of Sydney. Andrew Wiseman, Director of W&S Plastics

The Precinct and W&S Plastics are perfectly positioned to:

- openly collaborate, serve and actively support a new era of medical manufacturing and Australian innovation
- offer advice to start-ups on product design and prototyping tooling to develop proof of concepts and initial commercialisation
- scale up and smoothly transition concepts and ideas to fully automated commercial production
- access an agile, accelerated pathway to commercialisation
- create a unique ecosystem built on strong commercial experience and an agile mindset

“We want to see these businesses succeed because it impacts everyone. We bring that ‘collaborate to innovate’ philosophy to all our clients to help them successfully bring their concepts and ideas to life. Andrew Wiseman, Director of W&S Plastics



W&S Plastics

SAMSUNG SDS – INNOVATION USING WEARABLE TECHNOLOGY

Samsung SDS, a subsidiary of the Samsung Group of South Korea, is a global software solutions and IT services company that leads health innovation to drive business in a hyper-connected environment.

Samsung SDS has partnered with the Precinct to co-design an Australasia-first trial of the ultra-light S-Patch device to collect and store electrocardiogram (ECG) data from a group of stroke and cardiac patients. The high-tech smart technology is a wearable device that detects abnormalities by measuring the patient's heart rate, oxygen saturation, temperature, emotional response and movement 24 hours a day.

“With cardiovascular disease claiming one life every 12 minutes in Australia, we want to detect any abnormal heart rates as soon as possible to allow the patient to receive the care they need.

Professor Josephine Chow, Principal Investigator

The Precinct's collaboration with Samsung helps:

- facilitate clinical, research and technology knowledge exchange
- show the ability for national and international biotechnology manufacturers, medical technology corporations and logistics and supply chain management companies to trial innovations
- deliver data required to achieve marketing authorisation and capability in Australian and international markets



SAMSUNG SDS

ATMO BIOSCIENCES – CLINICAL STAGE DIGITAL HEALTH START-UP

The journey for any start-up can be a difficult one and even more so for a medical start-up that has to navigate all the complexities of clinical trials and meet the tough but necessary regulatory requirements before launching into a market. When funds are tight, it is vital that all this is done efficiently, effectively and economically and that's what Atmo Biosciences was seeking when they first met with the Commercialisation Advisory Group (COMAG) at the Liverpool Innovation Precinct.

Located in Sydney and Melbourne, Atmo Biosciences is a clinical-stage, digital health start-up addressing an unmet need to interrogate and monitor microbiome function, allowing better diagnosis and management of personalised therapies for gastrointestinal disorders, resulting in improved gut health and wellness.

“The investigators outperformed what was expected in terms of their recruitment rate; they just got on with it. They underpromised and overdelivered and it was all done during COVID. Malcolm Hebblewhite, CEO Atmo Biosciences

Working firstly with COMAG, Atmo Biosciences was introduced to the relevant clinical specialists and the dedicated clinical trials team. Together they established their trial protocol and initiated their clinical trials at the optimum site for their particular technology.

“For anyone looking to do a clinical trial for early-stage technology, I'd say talk to the team at Liverpool. They'll identify the clinicians and investigators in their network and it'll be done quickly, efficiently, inexpensively and successfully. That's been my experience. Malcolm Hebblewhite, CEO Atmo Biosciences



TATA CONSULTANCY SERVICES – FIT-FOR-PURPOSE DIGITAL DEVELOPMENTS

Tata Consultancy Services (TCS) is an Indian information technology service that is a global leader in the delivery of digital and business solutions through its large network of innovation expertise. The Precinct helped form a partnership between TCS and South Western Sydney Local Health District (SWSLHD) to develop an application that supports parents' ability to care for premature babies.

“It’s part of our commitment to providing the right information to parents and carers at the right time and to further support families during this special time in their child’s growth and development.” Amanda Larkin, Chief Executive of SWSLHD

Experienced clinical and technology experts across South Western Sydney collaborated with TCS, to co-design, develop and test the application. The free application, known as ‘Neonatal Care and Me’, can be used as a tool by parents and carers at any time to provide practical and accessible content, helping parents to care for their baby in a developmentally sensitive way. This includes content on how to take temperature, tube feed, bath, cuddle, change an oxygen probe and track age and weight.

“Access to consistent and high-quality neurodevelopmental care is essential to the baby’s immediate and long-term development.” Sarah Deeth, Campbelltown Hospital Paediatric Occupational Therapy Team Leader

The Precinct’s partnership with TCS has facilitated:

- development of a fit-for-purpose application
- innovation that complements and aligns to local needs
- delivery of relevant advice to inform parents
- positive improvements in parent’s delivering care



SEAMLESS CONNECTIVITY



NEXT GENERATION TRANSPORT

Liverpool of the future is a fast, efficient and productive city connected by rapid and frequent transport and high-speed digital networks.

TRANSPORT LINKAGES

24-HOUR CURFEW-FREE AIRPORT OPERATIONS

The multi-billion-dollar investment in the Western Sydney Airport (WSA), formally the Western Sydney International (Nancy-Bird Walton) Airport, will provide seamless, 24-hour, curfew-free flight operations and stress-free travel. The latest technologies will drive the customer's experience and support state-of-the-art meeting spaces for business travellers. Liverpool will have integrated smart rail and road connectivity to WSA and Sydney's CBD, making it one of the most strategically positioned cities in Australia.

Liverpool is the gateway city. It is situated in close proximity to both the Western Sydney International (Nancy-Bird Walton) Airport and Sydney International (Kingsford Smith Airport) and is less than 30 minutes to local and international transport hubs.

FIFTEENTH AVENUE SMART TRANSIT (FAST) CORRIDOR

Liverpool City Council's flagship project, the Fifteenth Avenue Smart Transit (FAST) Corridor, is a visionary city-shaping project to deliver a high-quality, technology-driven, public transport link between the Liverpool CBD and WSA. The NSW Government has also committed to a rapid bus connection between the airport, the new Aerotropolis and Liverpool's CBD in time for the airport's opening in 2026 - bringing people closer to jobs.

Liverpool Council is committed to the transport links being rapid, affordable, high quality and sustainable.

ENHANCED LOGISTICAL FREIGHT DISTRIBUTION

The Precinct is connected with the M5, M7 and M31 Motorways as well as the future M12 Motorway (currently being built) which will have direct links to WSA from M7. This provides the Precinct with access to one of Australia's fastest growing freight logistics hubs directly linked to national, regional, and global markets.

An intermodal freight terminal is being established at the Moorebank Logistics Park, located next to the Southern Sydney Freight Line (SSFL). The SSFL forms part of a dedicated freight-only corridor between Port Botany and Macarthur. These distribution, logistics and warehousing facilities will streamline rail and road movements of shipping containers in Sydney and eastern Australia.

PROUD MEMBERS OF THE GLOBAL NETWORK OF INNOVATION DISTRICTS (GNID)

Drawn together by transit, powered by clean energy, wired for digital technology and supported by a high-quality hospitality sector, innovation districts are ambitious in their efforts to strengthen local and regional competitiveness, grow new jobs with living wages, create new firms, and strengthen inclusive growth and equity across the region. In late January 2022, The Global Institute on Innovation Districts (The Global Institute) formally launched the Global Network of Innovation Districts (GNID).

The GNID, facilitated by The Global Institute, is an independent, research network, committed to designing strategies and solutions to accelerate growth of innovation districts worldwide.

A multi-disciplinary team of influential researchers, policymakers, practitioners, and leaders at The Global Institute have nurtured that vision for the past 15 years.

The founder of The Global Institute, Julie Wagner, elevated the growing role of innovation districts worldwide in the 2014 Brookings Institution report, “The Rise of Innovation Districts”, and has subsequently authored additional research to codify this evolving model of place-based innovation.

“The Liverpool Innovation Precinct was an inaugural member of The Global Institute on Innovation Districts’s global network, one of only three in Australia and the only one in NSW. It continues to be an active member of the exclusive, invitation-only GNID, further expanding its international connections and accelerating its development as an effective, global innovation precinct.”

We are proud to be considered the epitome of an ambitious innovation district by The Global Institute as we seek to create a multiplier of growth; to accelerate the development and scaling of advanced R&D clusters, grow new firms and jobs, catalyse inclusive growth, spur new waves of strategic investment, and create magnetic and inviting places.

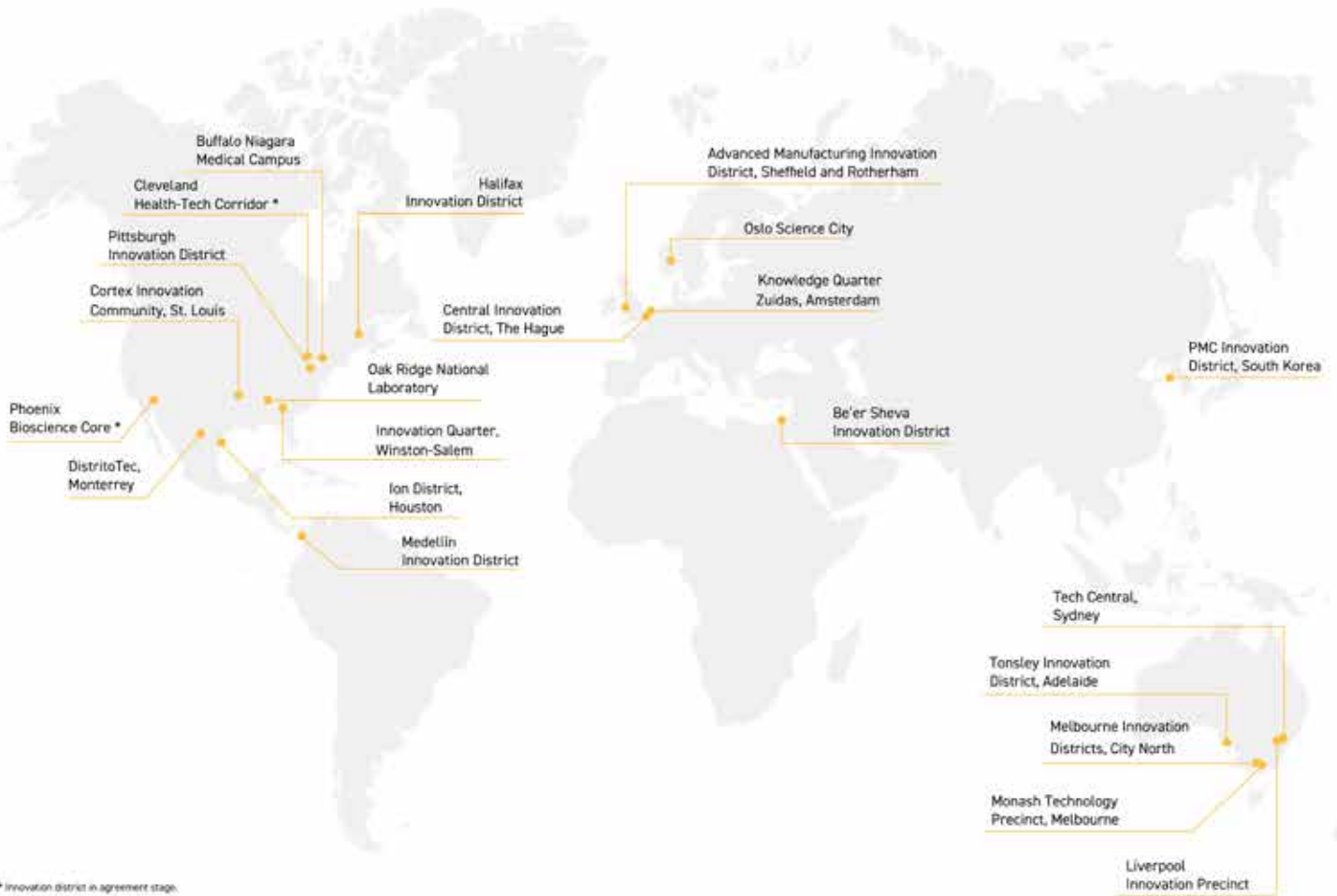
Liverpool works closely with innovation districts here in Australia and others across Europe, North America, Latin America and Asia. Each district, facilitated by The Global Institute, collaborates and shares lessons, research, analysis and processes that others in the network can access and benefit from. In addition, the network provides in-depth research, cutting-edge analysis and consultation on innovation and facilitates deep dive sessions to strategise systems to catalyse and accelerate growth.

A key point of difference within the GNID is the philosophy of open innovation. Districts actively advance a “collaborate to compete” agenda to solve some of our world’s most complex challenges and drive business growth for all.



THE GLOBAL INSTITUTE
ON INNOVATION
DISTRICTS

Global Network of Innovation Districts



* Innovation district in agreement stage.





**WE LOOK FORWARD
TO WORKING WITH
YOU TO TRANSFORM
OUR CITY AND
IMPACT THE WORLD.**

CONNECT WITH US TODAY

For further information please contact:

Lance Chia

Director, Investment & Innovation

PHONE 02 8711 7602

MOBILE 0436 914 551

EMAIL ChiaL@liverpool.nsw.gov.au



**Liverpool
Innovation
Precinct**

DISCLAIMER: Every effort has been made to ensure the accuracy of the information provided, however, the Liverpool Innovation Precinct does not accept responsibility for any consequences resulting from changing data or inadvertent errors. Information contained in this document is based on available data at the time of production, but we recommend individuals and organisations confirm data for accuracy and currency.

©2023 Liverpool Innovation Precinct