Advancing Manufacturing the Fishermans Bend opportunity



Fishermans Bend National Employment and Innovation Cluster (NEIC)

Vision and Strategic Directions

September 2021



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## **Minister's Foreword**



#### **Minister for Business Precincts**

Fishermans Bend, on the doorstep of the CBD, has for generations been a place where Melbourne makes and invents things, a place that has provided quality manufacturing jobs and rewarding work to thousands of Victorians.

As manufacturing evolves, enabled by new technologies and an increasing overlap with world-leading engineering and design research, the Fishermans Bend National Employment and Innovation Cluster (NEIC) presents a once-in-ageneration opportunity to redefine what manufacturing means in 21st century Australia.

Our city's precincts play a critical role in bringing industry, research and entrepreneurs together in locations that promote collaboration and excellence and grow the Victorian economy.

By 2050 it is envisaged that the Fishermans Bend precinct will be home to at least 40,000 jobs and over 20,000 students, and be internationally renowned as a centre for innovation in advanced manufacturing, engineering and design.

To support this vision, the *Victorian Budget 2020/21* included a \$2 billion Breakthrough Victoria Fund to drive investment in research, innovation and the

next great breakthroughs. Initially operating over 10 years, the fund will promote projects delivered in partnership with knowledge institutes and industry stakeholders, focusing on key industries with strengths in Fishermans Bend.

Strong partnerships will be the key to unlocking the full potential of Fishermans Bend and the government-owned former General Motors Holden site that sits at its core. These partnerships must be formed around a shared sense of purpose and optimism for the future of advanced manufacturing, engineering and design in Victoria.

Advancing Manufacturing – the Fishermans Bend opportunity is the first step in establishing and testing that shared sense of purpose with the partners that are essential to its realisation.

It builds on the Fishermans Bend Framework (released in 2018), providing the vision and strategic directions that signal the next step in planning for the precinct.

In the coming months, years and decades the Victorian Government will work with industry, institutions, innovators and investors to reimagine this remarkable place.

On the doorstep of the CBD, we can build a precinct of global renown that produces solutions for the world.

The Hon Martin Pakula MP
Minister for Business Precincts

#### Acknowledgement of Bunurong Land Council Aboriginal Corporation.

We acknowledge the Traditional Owners of lands and waterways encompassing Fishermans Bend, the Bunurong peoples, and pay our respects to their Elders past, present and emerging.

We recognise the intrinsic connection of the Bunurong Traditional Owners and acknowledge their contribution in the management of land water and resources.

We also recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us. We embrace the spirit of reconciliation and their self-determination, working towards the equality of outcomes and ensuring an equal voice.





#### What's in a name?

For the purposes of planning, the geographic area that is the focus of this document is referred to as the Fishermans Bend Employment Precinct or the Fishermans Bend National Employment and Innovation Cluster (NEIC).

Early feedback suggests that the name does not speak to the vision for the area as a hub for advanced manufacturing, engineering and design innovation, nor relate to any historical or geographic reference.

The intention is to engage with key stakeholders, including the City of Melbourne to find a more suitable name in the near future.

#### **Fishermans Bend Framework**

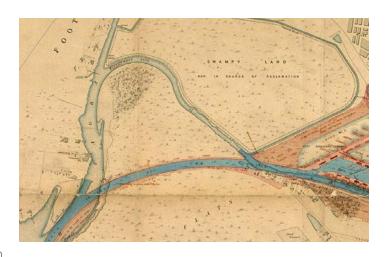
The Fishermans Bend Framework is a long term strategic plan to guide investment and development of Fishermans Bend to 2050.

Introduced in 2018 after extensive community consultation, the framework covers the five precincts of Lorimer, Montague, Sandridge, Wirraway and the Fishermans Bend National Employment and Innovation Cluster (NEIC).

Advancing Manufacturing – the Fishermans Bend opportunity builds on the framework's high-level vision, adding depth to that vision and articulating the strategic key moves that will facilitate transition of the NEIC.

This summary document will be accompanied by a longer-form precinct plan that details how the vision for the NEIC will be implemented.

Detailed decisions about the implementation of various actions (including timing, funding and scope) will only be made following careful assessment against budget capacity and project priorities.



The Fishermans Bend NEIC presents a once-in-a-generation opportunity to redefine what manufacturing means in 21st century Australia.

40,000+ jobs

**20,000+ students** 



# Advancing Manufacturing - the Fishermans Bend opportunity

### Fishermans Bend has long been synonymous with innovation and ingenuity in Australia's manufacturing and industrial history.

From the roll-out of the first Australian designed and built production vehicle, the invention of the black box flight recorder, or the development of world-leading carbon fibre technology, Fishermans Bend has a proud legacy of turning bold ideas into tried and tested inventions.

This legacy has endured, and with a range of local and global forces now combining, the Fishermans Bend NEIC is in the midst of its next major evolution.

Advancing Manufacturing – the Fishermans Bend opportunity presents a bold vision for the NEIC and proposes five strategic key moves to guide the Precinct's economic, cultural and place transition over the coming years and decades.

Planning for the Fishermans Bend NEIC's future draws heavily from its past, applying best practice learnings from successful global innovation precincts to promote productivity growth, education pathways and labour force development

to realise good ideas and create more quality manufacturing and engineering jobs for Victorians.

Its proximity to the amenities, jobs, services and housing options of central Melbourne and the development of the wider Fishermans Bend urban renewal area gives the precinct a distinct competitive advantage, allowing it to attract talent by leveraging off one of the world's strongest economies and most liveable cities.

Recognising the opportunity to support and catalyse an advanced manufacturing innovation ecosystem, the Victorian Government purchased the former General Motors Holden (GMH) site.

A key catalyst project, the former GMH site sits at the heart of the 230-hectare NEIC, where planned improvements to public transport and urban amenities are expected to see the precinct grow to support over 40,000 jobs in addition to over 20,000 new students

The University of Melbourne has already committed to the precinct, and with aspirations to grow and solidify its status as one of the world's leading engineering schools, anticipates opening a custom-built Fishermans Bend engineering and design campus in the near future.

With world-leading engineering and design research, global industry partners, entrepreneurs, intermediaries and investors as neighbours, the precinct will further embed collaboration and innovation in Fishermans Bend's DNA.

By supporting a culture that fosters experimentation and learning from doing, the Fishermans Bend NEIC will push design boundaries through a continual process of prototyping, testing and refining ideas. It will be a place that celebrates risk taking - and failure - as essential ingredients to innovation.



# Legacy as a building block for the future

The history of Fishermans Bend runs in tandem with the story of reshaping and transforming the landscape, driven by the changing needs of communities, industry and private enterprise, transport and infrastructure.

Due to its proximity to the point where Port Phillip Bay meets the Yarra River, Fishermans Bend has always been an important place for Bunurong Traditional Owners who have had a significant association to the area, that maintained their traditional practices, lore and use of the area's resources!

Traditional knowledge tells of the time when the Bay was land rather than water, and formed a vast hunting ground where kangaroos abounded and the Yarra River emptied into the ocean at Port Phillip Heads.

With its salt water lagoons, sandy scrubland and dense thickets of tea tree, Fishermans Bend was a rich food source, establishing it as a place long driven by the needs of communities, connection and trade!

With colonisation the beaches along the bend of the river were settled by fisherfolk, providing the basis for the area's name today – Fishermans Rend

From the 1930s industry played a growing role on the south bank of the Yarra, with aircraft production (including two runways) and several automobile factories established at Fishermans Bend. World War II and the decades that followed saw industrial activity intensify, greatly contributing to Melbourne becoming Australia's manufacturing heartland.

General Motors Holden (GMH), Defence, Science and Technology (DST) Group, Bega and Boeing emerged from that proud industrial legacy and remain important contributors to the precinct. More recently they've been joined by the cement and construction industry as well as Siemens and the Australian Road Research Board (ARRB) in the transport sector and the creative tech global success story, Blackmagic Design.

With these building blocks in place, the University of Melbourne has committed to develop a world-leading engineering campus on the site where the first Holden rolled off the production line over 70 years ago.

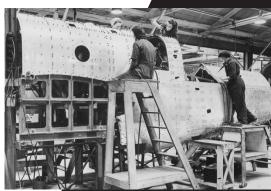
This commitment, coupled with the catalyst redevelopment of the former GMH site and planned infrastructure upgrades represent the next step-change in Fishermans Bend's evolving landscape.





Aboriginal camp on the banks of the Yarra. John Cotton c.1845

Source: Accession no: H252, Pictures Collection, State Library of Victoria





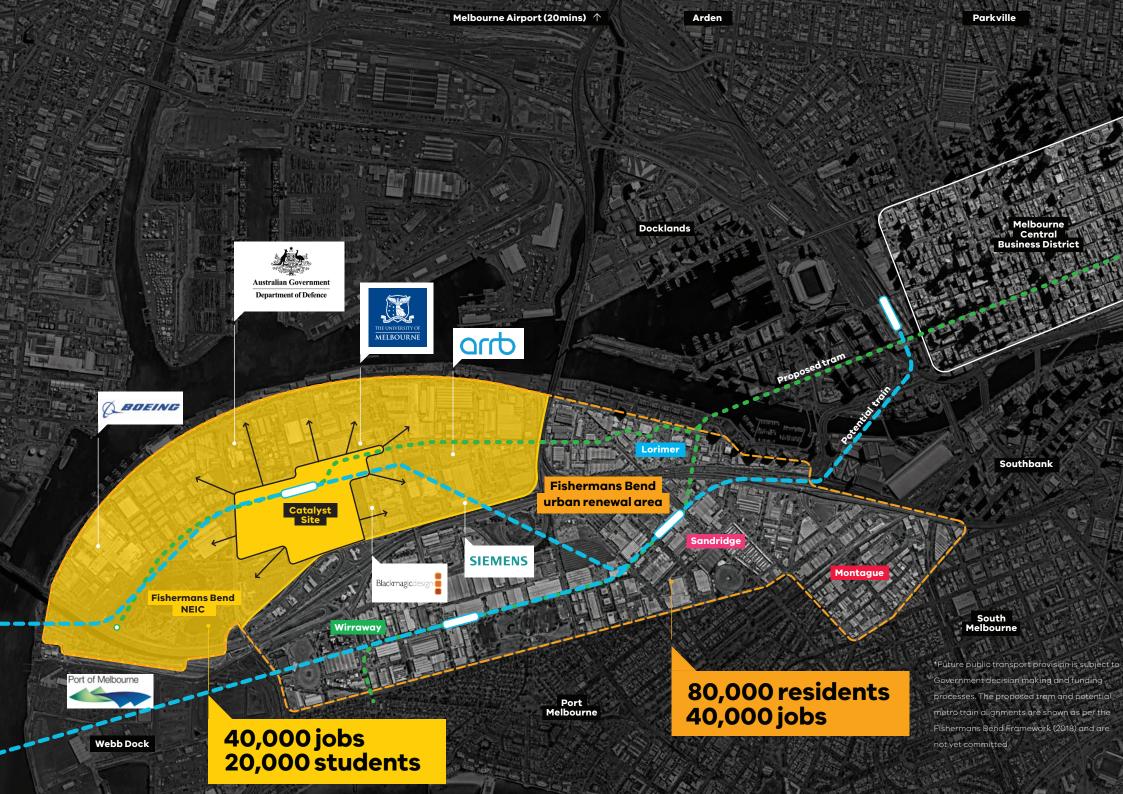
Women workers at the Commonwealth Aircraft Factory during World War II

Source: Australian War Memorial, Ref. no. 045372





Source: GM Holden Collection



# Evolving a proud manufacturing legacy into a 21st century innovation precinct

Manufacturing remains a cornerstone of the Victorian economy and a catalyst for jobs growth and prosperity. Enhanced local capabilities will provide greater supply chain and labour force resilience.

Victoria hosts Australia's largest manufacturing workforce and leads the nation in expenditure on manufacturing research and development<sup>2</sup>. With its heavy research and development investment, manufacturing is closely tied with innovation and driving new product and process developments that improve productivity across the economy.

Manufacturing has evolved, and today the industry in Australia is characterised by intricate connections across global value chains, with value creation progressively shifting towards pre- and post-production activities such as design, engineering, supply chain management, logistics and after-sale service.

The rise of new digital industrial technology, or 'Industry 4.0', is combining traditional manufacturing with automation and the ability to gather and analyse large quantities of data. Industry 4.0 aims to unlock faster, more flexible and more efficient processes and produce higher quality goods at reduced cost.

These advancements have the capacity to greatly improve manufacturing performance and competitiveness and if embraced can provide a leap forward in local manufacturing capabilities.

Nowhere is this opportunity more true than at Fishermans Bend.

Across the world 'innovation precincts' are emerging as the engines of economic growth, drawing on and revaluing the intrinsic qualities of cities: proximity, density, authenticity, and vibrancy<sup>3</sup>.

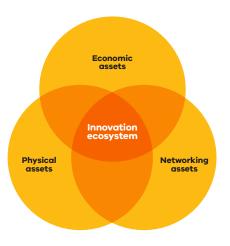
Innovation precincts promote collaboration and the convergence of talent and ideas, building an innovation ecosystem that brings together economic, physical and networking assets:

- Economic assets are the companies, institutions and organisations that drive, cultivate or support an innovation rich environment.
- Physical assets are publicly, or privatelyowned places including streets, open spaces and other infrastructure, designed and organised to stimulate new and higher levels of connectivity, collaboration and innovation
- Networking assets are the relationships between people, companies and places that facilitate ideas generation and advances in commercialisation.

The vision for the Fishermans Bend NEIC celebrates the precinct's proud manufacturing legacy, applying innovation precinct thinking to build broad economic and social benefit for Victoria, grow manufacturing and engineering jobs, and expand the global reach of innovations and ideas developed at Fishermans Bend.

At the core of the economic vision for the precinct is that it remains a place centred around physical production, a place where the best of what Melbourne makes can be showcased and celebrated.

The long established industrial sectors of aerospace, transport and defence will remain focus sectors, complemented by the emerging industrial sectors of clean technology and creative technology. These focus sectors will be supported by world-leading education and design, and enabled by advanced technology capabilities.



<sup>2.</sup> Victorian Government (2017), Advancing Victorian Manufacturing: A blueprint for the future

'Clean technology' encompasses practices that reduce negative environmental impacts and include renewable energy, waste and recycling, sustainable building materials and techniques.

'Creative technology' is a broad interdisciplinary field that combines production with computing, design and art.



#### The vision for the Fishermans Bend NEIC is supported by pillars and objectives.

5 Key Moves are proposed to promote spatial transition and bring the vision to life.

# Vision:

The Fishermans Bend NEIC will be internationally renowned as a centre of innovation in advanced manufacturing, engineering and design.

A critical mass of world-leading industries and research institutions that give Fishermans Bend global prominence and unparalleled capabilities.

A healthy and inclusive innovation ecosystem that drives competitive advantage and supports a diverse range of people to turn ideas into new products.

#### **Objectives**

- → Encourage a critical mass of advanced manufacturing and engineering industries including in the key sectors of aerospace, transport, defence, clean tech and creative technologies.
- Support the critical mass of industry with world-leading education and design institutions.
- → Enable innovation through access to unparalleled advanced technology capabilities.
- → Support the precinct growing to over 40,000 jobs to complement the economic and jobs growth of the greater Fishermans Bend urban renewal area.
- → Encourage the greatest intensity of activity around proposed and potential high capacity public transport services and universities.

#### Objectives

- → Promote innovation through collaboration that fuels the adoption and commercialisation of ideas at scale.
- → Support the attraction and retention of start-ups, scale-ups, entrepreneurs and small to medium enterprises that complement large industrial and institutional anchors.
- → Provide employment and education pathways for people from diverse backgrounds and skill levels, from apprenticeships to PhDs.
- → Encourage the sharing of facilities, infrastructure and capabilities wherever possible.
- Provide a highly accessible, vibrant and inspiring physical home for precinct partners to collaborate and work with new industries, organisations and innovators.





A high-quality place that attracts and inspires talent, promotes collaboration and integrates with the natural environment.

A highly accessible precinct that draws people, products and ideas from across the world, across the city and across Fishermans Bend.

Leadership and governance that advocates for the precinct and gives it a strong sense of purpose and prominent public face.

#### **Objectives**

- → Recognise and celebrate industrial, architectural, cultural and Aboriginal heritage to strengthen a sense of place and identity.
- → Create an open space network that supports a diversity of recreation uses, enhances connectivity, supports sustainability and biodiversity and mitigates flood risk.
- → Promote a high amenity, creative and vibrant urban environment, with a range of day and night time uses.
- → Develop a people focused street network of active boulevards and finer grain supporting streets.
- → Encourage a diversity of land parcel sizes and built-form outcomes that meet the requirements of an advanced manufacturing and engineering innovation precinct, now and into the future.

#### **Objectives**

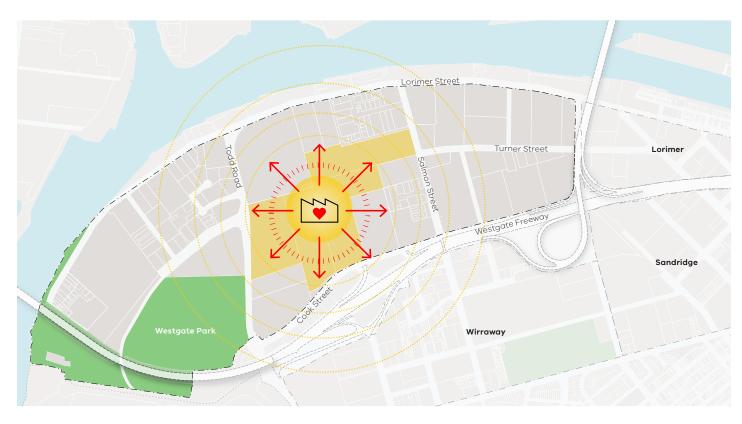
- → Ensure the precinct embraces diversity and opportunities are inclusive and accessible to people of all backgrounds and abilities.
- → Deliver public transport services that are accessible from all workplaces and connect to the broader transport network.
- Establish a high quality and safe pedestrian and cycling network that promotes connections to the Melbourne CBD, Yarra River and neighbourhoods south of the Westgate Freeway.
- → Support the ongoing operations of the Port of Melbourne and the construction industry.
- → Integrate digital technology across Fishermans Bend via fast, reliable and high capacity infrastructure that enables living lab opportunities.

#### Objectives

- → Showcase the precinct's proud industrial legacy and celebrate the successes of existing precinct partners.
- → Develop a distinct global profile for the precinct to guide talent and investment attraction.
- → Demonstrate excellence and innovation in all aspects of precinct planning, delivery, management and financing.
- → Provide a forum for precinct partners to connect, test ideas and form collaborations.
- → Develop a robust governance model to support the realisation and evolution of the precinct vision over time.

# **Key Move 01: Catalyst Site**

Use the government land holding to catalyse economic, cultural and place change across the Fishermans Bend NEIC.



In the advancement of industrial innovation in Australia, the General Motors Holden (GMH) site at Fishermans Bend has played a prominent and proud role.

While mass production may have left the site, the purchase of this 32-hectare site by the Victorian Government and the attraction of the University of Melbourne as its first new tenant provides the catalyst for the precinct's next evolution.

The site's redevelopment will epitomise the vision, seeding and promoting the positive transition required to realise a thriving innovation precinct focused on advanced manufacturing, engineering and design excellence.

Sitting at the heart of the precinct, the site will be the precinct's pulse and the point that connects students, industry, institutions, thought leaders, and venture capital in an inspiring environment.

The site presents opportunities to attract vision aligned tenants from global names to high potential start-ups. This potent mix will support bold ideas through to commercialisation at scale.















NExT Lab, Melbourne School of Design / University of Melbourne VIC.



Stomping Ground / Collingwood VIC.



Tonsley Innovatior District / South Australia.



Centre Pompidou / Paris France.



Australian Centre for Innovative Manufacturing, Tonsley Innovation District / South Australia



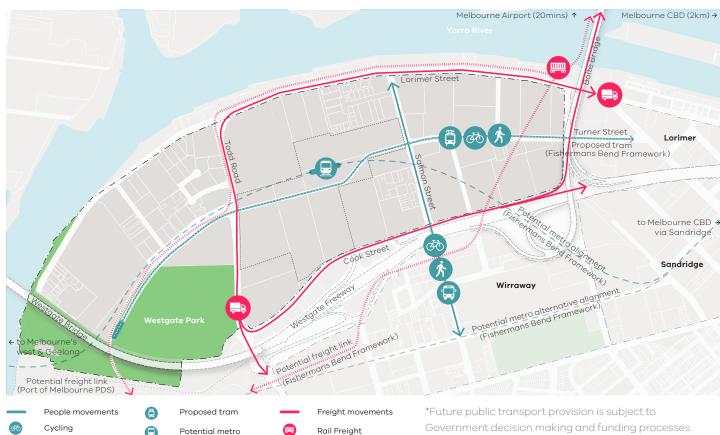
The Nantes Saint-Nazaire Higher School of Fine Arts / Nantes France.



EcoCampus Burbank Park / California USA.

## **Key Move 02: Connectivity**

#### Connect Fishermans Bend to the city and the world.



Walking

Vehicular Freight

Public transport alignments are shown as per the Fishermans Bend Framework and are not yet committed. Fishermans Bend has always been close to the city yet challenging to access. The precinct's street network and access routes were largely planned to support the movement of trucks and freight rather than people.

While the movement of freight remains vitally important, as the precinct transitions its street network will also need to support human scale movements. In supporting multiple transport needs the following is proposed:

- → Turner Street and Salmon Street provide a human centred spine supporting safe and reliable public and active transport movements.
- → Lorimer Street, Todd Road and Cook Street are proposed as an industrial backbone, supporting road freight movements to the freeways and rail freight connections between the Port of Melbourne and the broader Victorian freight rail network.

In all instances transport infrastructure presents an opportunity to improve the place qualities of Fishermans Bend and utilise under crofts and spaces between large infrastructure assets.

In addition to physical connectivity upgrades, improving digital connectivity will enable innovation and take the ideas of Fishermans Bend to the world.

















Caulfield to
Dandenong Level
Crossing Removal
Project /
Melbourne VIC.



Bicycle Snake / Copenhagen Denmark.



London Bridge Station / London UK



Malop Street Green Spine / Geelong VIC.



Anzac Station, Metro Tunnel / Melbourne VIC.



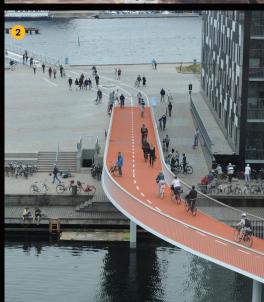
Green tram tracks
/ Frankfurt
Germany



Tanderrum Bridge / Melbourne VIC.



New Academic Street, RMIT University / Melbourne VIC.



## **Key Move 03: Green Network**

Give the precinct lungs, to provide a new and expanded green network that supports the changing economy and biodiversity.



Transition presents the opportunity to redefine the precinct's relationship and connection with the natural environment to enhance amenity for workers, support greater sustainability and biodiversity outcomes and mitigate water management challenges.

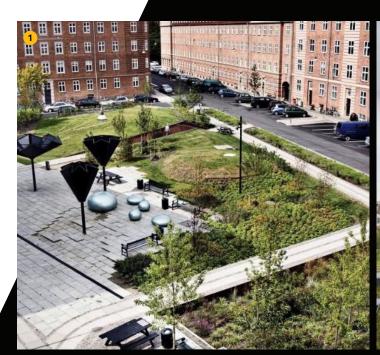
A network of diverse green spaces is proposed to complement cycling and pedestrian corridors and intertwine with built form and industrial heritage.

Utilising wide road reserves, Turner Street and Salmon Street will form the primary green corridors, providing a network for publicly and privately delivered green spaces to connect to.

Westgate Park is a regional asset with the potential to play an expanded role and a destination for workers and visitors.

Wherever possible the edges of Westgate Park will be softened and connectivity to and from the park improved, via biodiversity corridors for humans, animals or plant life.

The long-term role and function of the site currently utilised as a Go-Kart track at the corner of Cook Street and Todd Road will be reviewed to maximise strategic benefit.

















Tasinge Plads / Copenhagen, Denmark.



Tonsley Innovation District / South Australia



Chippendale Green / Sydney NSW.



Campus Green / Monash University Caulfield Campus VIC.



CLEC Docklands Park / Melbourne VIC.



Central Park / Sydney NSW.



Industry City Courtyard 5-6 / New York USA.

# **Key Move 04: Civic Boulevards**

Support pedestrian life and activity along re-imagined boulevards.



Turner Street and Salmon Street are identified as providing a human centred spine that facilitates public and active transport movements to and through the precinct.

To support this changing function, the urban form that fronts Turner and Salmon Streets will be re-oriented over time to create high amenity, attractive and active civic boulevards.

These boulevards (and 200 metres back from them) will be highly permeable walking environments, providing vibrant and engaging places for people to socialise, collaborate and create.

Buildings fronting the boulevards will have active ground floors, and wherever possible, showcase to the street the innovations being developed inside.

These boulevards will be embedded with world-leading telecommunication technologies, such as 5G WIFI and Internet of Things sensors to collect data and allow the precinct to operate as a living laboratory.















National Centre for Synchrotron Science / Clayton VIC.



New Academic Street, RMIT University / Melbourne VIC.



Science Gallery, Trinity College / Dublin Ireland.



UTS Central Broadway / Sydney NSW



Embodied Computation Lab, Princeton University / New Jersey USA.



Darling Quarter / Sydney NSW.

# **Key Move 05: Urban Design**

Encourage development that improves amenity, delivers advanced manufacturing, engineering and design jobs, and safeguards long-term flexibility.

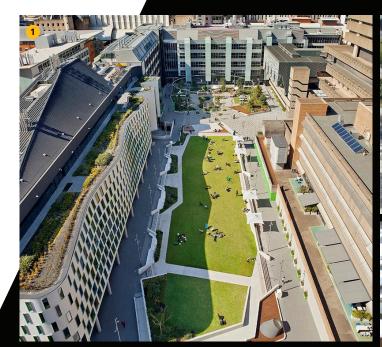


Fishermans Bend will be a destination for global talent, with its strong economic offer supported by an inspiring, well-designed built environment.

Unlike the other four precincts of Fishermans Bend, the Fishermans Bend NEIC will not host large scale residential development.

New development will strike a balance between improving amenity, celebrating the area's heritage, promoting activity and increasing job density in key locations while also protecting opportunities for advanced manufacturing floor plates in other areas.

Planning controls will be explored to ensure design excellence, allow flexibility in how floorspace is delivered, protect larger land holdings from fragmentation, encourage transport mode shift, and provide the opportunity to realise broader precinct benefits, such as embedding affordable commercial and industrial workspaces in the precinct.



















UTS Alumni Green / Sydney NSW.



The Nantes Saint-Nazaire Higher School of Fine Arts / Nantes France.



Biotope Building / Lille France.



800 Bourke Street Docklands / Mebourne VIC.



Melbourne Connect, University of Melbourne / VIC.



Robotic FabLab, Arch-Tec-Lab / Zurich Switzerland.



International House, Barangaroo / Sydney NSW.



Safran Aircraf Engines.

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