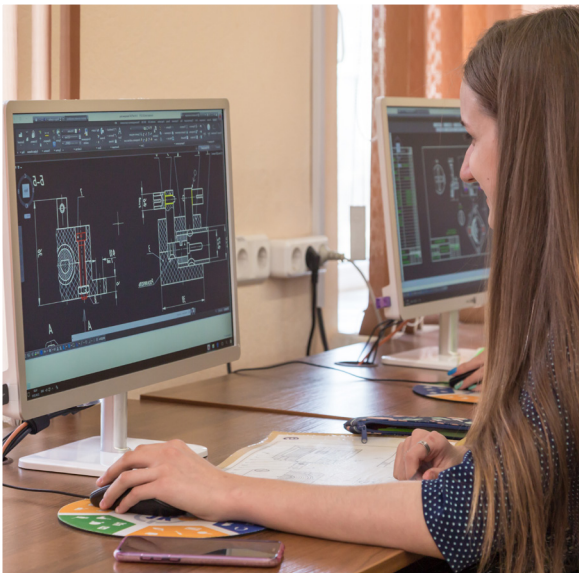


# Unlocking Sydney's Employment Lands: Is Flexibility the Way of the Future?

Research Paper  
June 2020

ETHOS  
URBAN





# Executive Summary

Despite an uncertain start to 2020 with bushfires and the COVID-19 pandemic, there remains a strong opportunity for growth in Sydney over the longer term if we look through the short term impacts to the outlook. Sydney is an economic powerhouse, accounting for around one quarter of Australia's economic output, and is a global city on the world stage. Sydney is also one of the fastest growing global cities and is projected to continue to grow in the longer term, with official forecasts estimating the population of the city could grow by more than 50%, to over 8 million people in the next 20 years (adding almost 3 million additional people during this timeframe). In a growing, global city how does the city continue to support the increased pressure on land availability and employment growth? Is Sydney's industrial and urban services land operating as effectively as it can to support the continued evolution of the city?

*A high-level review of industrial and urban services land across Greater Sydney indicates that an opportunity exists to help these precincts evolve in order to better cater for the future growth and development across Sydney. This includes allowing the precincts to adapt in order to provide a greater flexibility of uses and built form that can respond to the changing needs of the city and better respond to the changing nature of employment and technology.*

In the last few years, the evolution of industrial and urban services precincts has stalled, as an overarching desire to protect employment lands has resulted in a lack of progress through limitations on uses and development in these precincts. While it remains critical to support employment lands in Sydney, not all precincts are created equal, as each industrial and urban services precinct is unique, playing a different role in their local or regional economy, influenced by locational attributes and individual characteristics in each region. As such, a 'one-size fits all' approach to land use and development is not the most efficient approach to managing growth and development in these precincts and across the city.

While several precincts operate well, providing higher-order employment opportunities or serving a critical role in the regional or local economy, other industrial and urban services lands are not operating as effectively as they could be in order to support employment and growth in Sydney as it continues to evolve. This can be identified at a high level through a range of factors including; the number and types of employment being supported in various precincts across the city, varied market metrics which impact tenants and developers, or through the movement of workers across the city - and the misalignment of higher order employment lands in the eastern city despite the majority of residential growth planned in the central and western city.

Technology and employment trends are also changing rapidly, with several fundamental shifts in a direct response to the COVID-19 pandemic. These trends have implications on the way we live and work. Despite these shifts, our employment precincts have not been given the chance to respond and as such, there is an opportunity for our employment lands to be reimagined in order to operate more efficiently and do more to support growth opportunities now and into the future.

This research paper outlines that a more flexible approach to land use could help to unlock additional potential and growth opportunities across existing employment lands in the city. These reimagined precincts would have the potential to deliver more jobs, and to relate more effectively to the local community and workforce, which in turn will support the future growth and development of Sydney as a global city.



# Research Paper 1: Unlocking Sydney's Employment Lands – Is Flexibility the Way of the Future?

Despite the subdued short term economic outlook for the local and broader global economy which has been impacted from the bushfires through to pandemics, the long term growth outlook remains strong for Sydney. Sydney is a global city and is projected to continue to grow substantially in the longer term. The historical growth and success has led to increased competition for land that in turn has placed pressure on industrial and urban services land within Sydney's urban areas. At the same time many industrial businesses have relocated to less constrained and more affordable land in western Sydney. The combination of these effects has created many precincts within Sydney that have become tired and dated and are no longer functioning to their full capacity. There is no doubt that Sydney needs employment land, however the key questions to ask are:

***Could we use the industrial and urban services land that we have more effectively?***

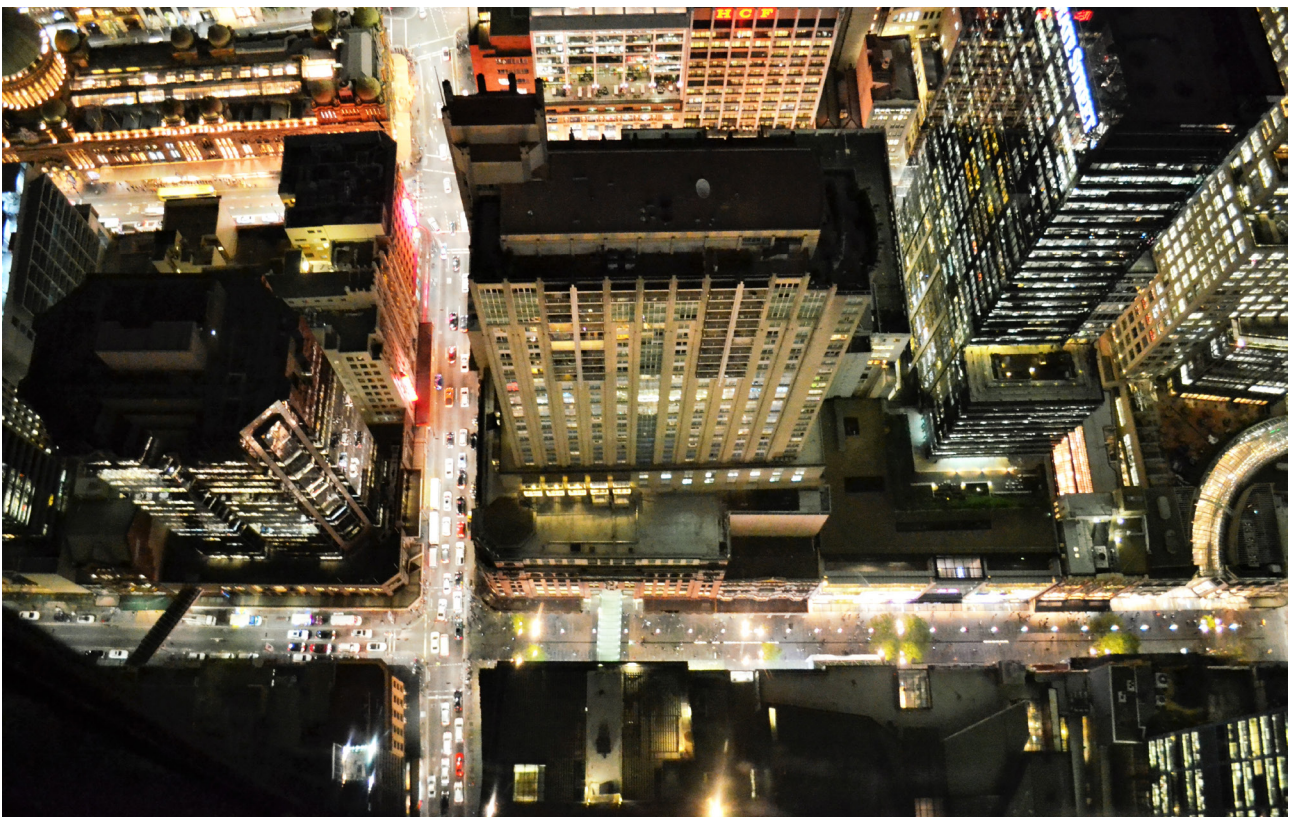
***and***

***Can industrial and urban services employment land better respond to the city's needs?***

Ethos Urban's Economics team explores these questions in the context of future growth and the Greater Sydney Commission's A Metropolis of Three Cities – the Greater Sydney Region Plan.

This is the first research paper in a series to be published by Ethos Urban which examines an alternate approach to the retention of employment land in Sydney. Through this series of research papers, we will explore the viability and feasibility of genuine employment led mixed use developments in terms of their economics, design and planning requirements. These research papers will seek to set out a practical solution that we believe would assist in addressing many of the challenges currently facing Sydney and helping the city evolve in a post COVID-19 world. This will have regard to improving the efficiency of our employment precincts, creating jobs that maximise the use of our workforce, delivering key services that our communities need and providing new land use opportunities. All of these factors are integral to ensuring the continued success of Sydney as a global city.

***With the above in mind Ethos Urban believes that there is a significant opportunity for employment land to be redefined and reimaged and not just retained, which will help maximise the use of our existing employment precincts and in turn positively drive job growth and improved employment diversity across the metropolitan area.***

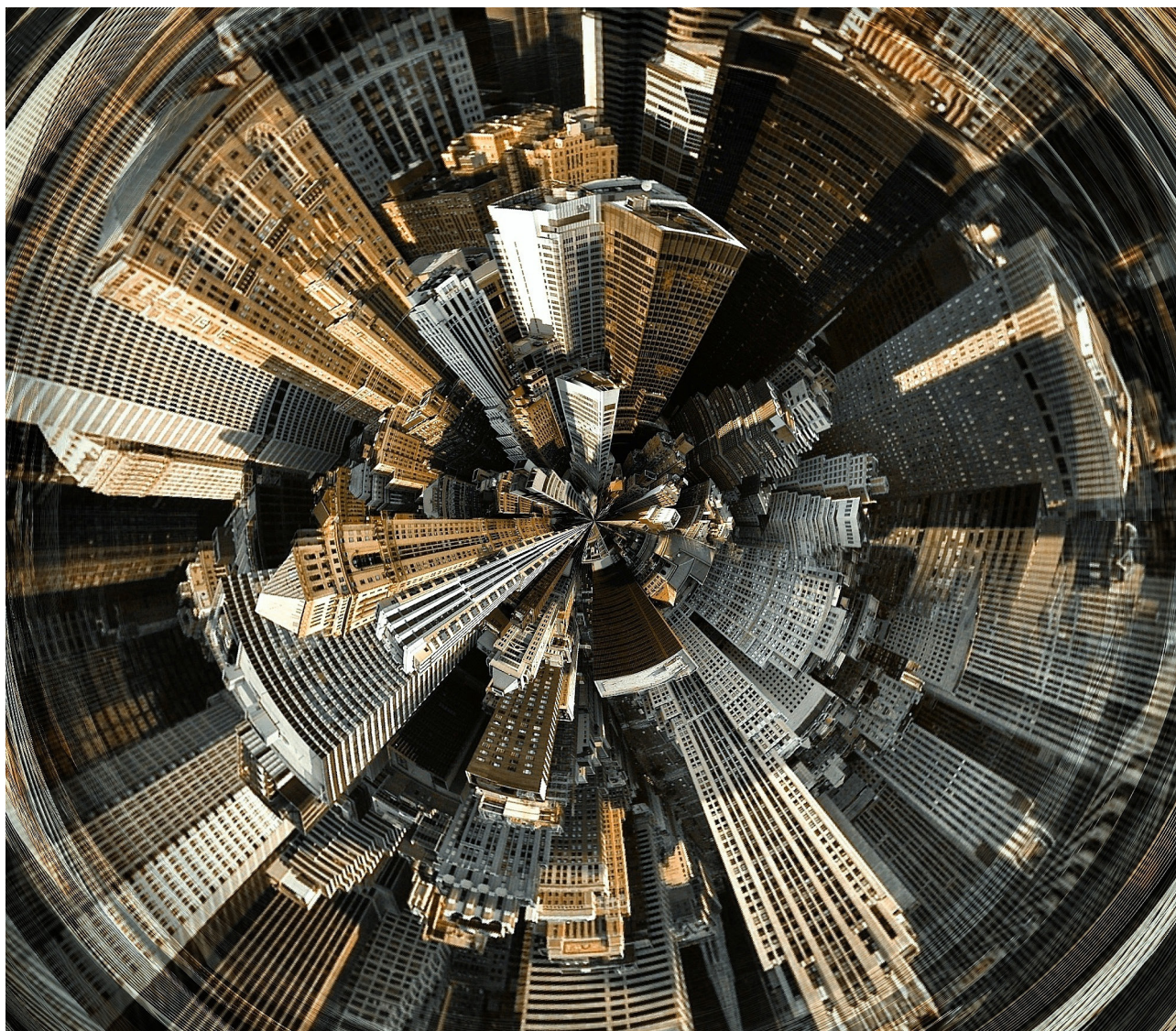




# Flexibility in an Uncertain Environment

While the long-term implications of the COVID-19 pandemic remain uncertain, the short-term impacts have been swift, and are likely to remain for some time. Despite the uncertainty that 2020 has brought to Sydney and the world more broadly, COVID-19 has also likely stimulated long lasting change in key areas and sectors that we are yet to fully appreciate. Shifting processes and technologies that may have taken years, or even decades, to become mainstream have been turbo-charged – occurring in a matter of months. These shifts have implications for Sydney's employment lands, particularly when you consider the immediate growth in trends such as 'work from home' and omni-channel retailing including home delivery and 'click and collect.'

More recent trends that have been stimulated through the crisis could also continue including the importance of 'localism' and live/work/play communities, the growth in 'onshoring' manufacturing, particularly in advanced manufacturing through practises such as 3D printing, or even the desire for a more secure and diversified supply-chain for a range of businesses. We do not know what a post COVID-19 world will look like but we do know that the questions about how Sydney's employment lands adapt and respond in this changing world remain more relevant than ever.





# Sydney as a Global City

Sydney is a global city, recognised the world over for its natural beauty, lifestyle and economic opportunity. As a global city, Sydney has experienced strong population growth and urban development over the last three decades. Today Sydney is home to around 5 million people, and over the next 40 years is projected to increase to over 8 million people.

From a pure population point of view Greater Sydney is now larger than cities such as Berlin and Barcelona, and in the longer term, with a population of 8 million, the city is projected to have a population comparable to many major cities today such as Hong Kong.

Despite the large population, the population density throughout Sydney on average is quite low, reflecting the large geographical area. However, in land constrained areas such as in parts of the eastern suburbs, the lower north shore and the inner west, it can be seen that densities are much higher – in the order of 5,500 to 17,000 persons per km<sup>2</sup> – more in line with average density of larger cities such as Tokyo and Madrid.

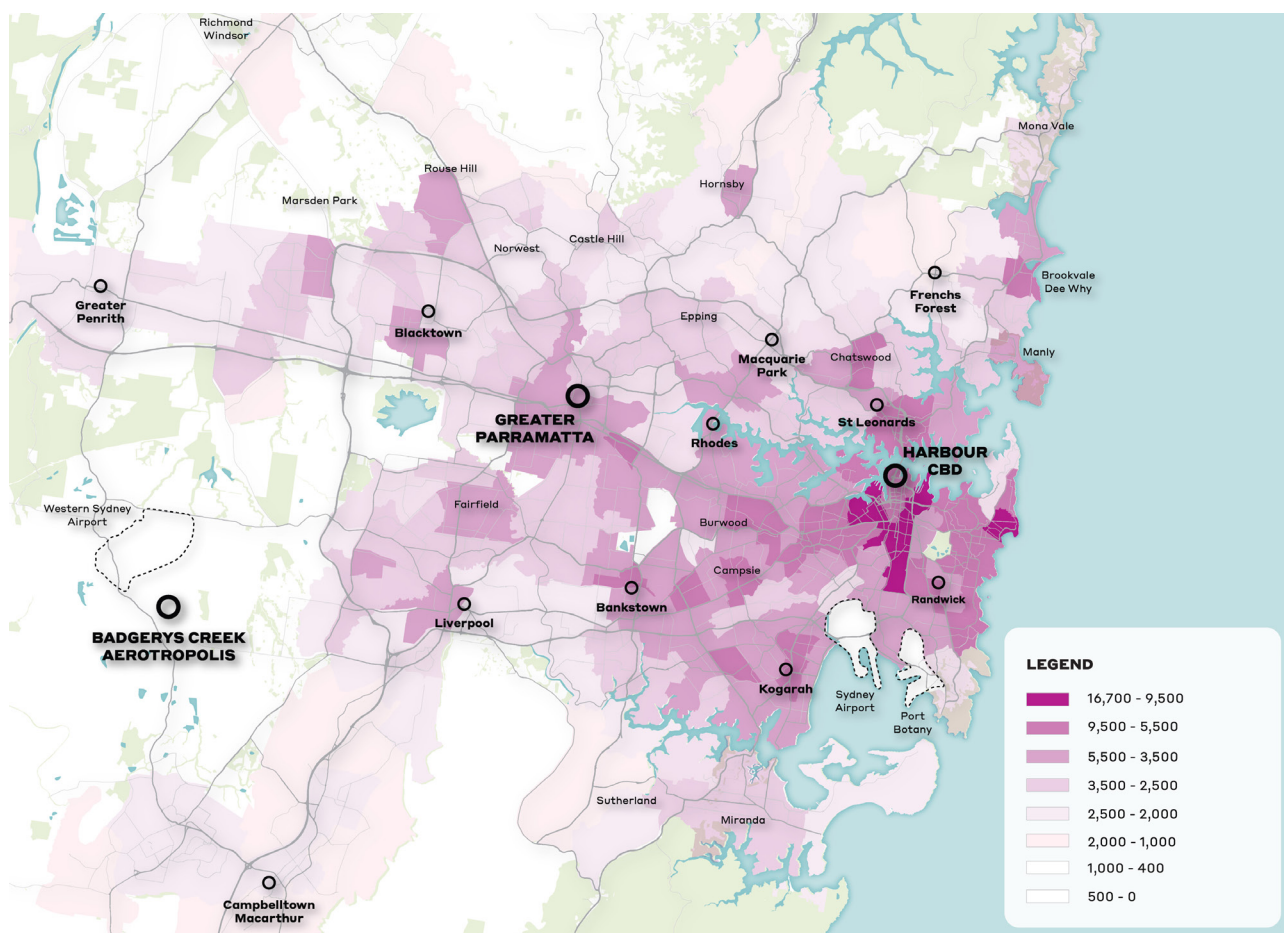
**Table 1** – Population across a sample of major cities (2019)

CITY	POPULATION
Tokyo	38.5 million
Shanghai	22.1 million
New York	21.0 million
Bangkok	16.0 million
Paris	11.0 million
London	10.8 million
Hong Kong	7.4 million
Madrid	6.3 million
San Francisco	6.1 million
Singapore	5.7 million
<b>Sydney</b>	<b>5.3 million</b>
Barcelona	4.8 million
Berlin	4.1 million
Rome	4.0 million

Source: ABS, Demographia World Urban Areas: 2019

\*Based on greater urban areas





**Figure 1** – Greater Sydney Population Density  
Source: ABS (based on SA2 geographies), Ethos Urban

**Table 2** – Population Densities of Major Cities (2019)

CITY	POPULATION
Hong Kong	26,100 km2
Singapore	10,900 km2
London	5,600 km²
Shanghai	5,500 km2
Bangkok	5,300 km2
Madrid	4,700 km2
Barcelona	4,500 km2
Tokyo	4,000 km2
Paris	3,700 km2
Rome	3,600 km2
Berlin	3,000 km2
San Francisco	2,100 km2
<b>Sydney</b>	<b>2,000 km2</b>
New York	1,700 km2

Source: Demographia World Urban Areas: 2019  
\*Based on greater urban areas

The projected population growth in Sydney means more jobs - with employment in the Sydney metropolitan area projected to increase from approximately 2.6 million jobs in 2019 to 3.6 million jobs by 2041 (Department of Transport for NSW)

Sydney's economy consists of many different industries and businesses, which operate at varying scales and contribute differently to local communities. Sydney is primarily a service economy, with major economic activity associated with population serving industries as well as in finance, education and tourism. Sydney also maintains a level of manufacturing, though this has declined significantly over the last two decades.

As a global city, Sydney competes on the international stage, particularly against South-east Asia. As a finance and service economy, Sydney remains smaller than major hubs such as London, New York, Paris, Tokyo and LA however, performs well from an economic growth perspective and therefore remains attractive for global investment. The city competes more directly with other global cities such as Hong Kong, Chicago and Frankfurt. Closer to home, Melbourne is a key competitor in the financial services sector as well as tourism and education.



As Sydney has grown and evolved, so too has its urban and built form. Residential densities have increased, the CBD office market has expanded in scale, and major centres have continued to expand outside of the core CBD including at Parramatta, Macquarie Park and Chatswood. The Government has also made significant investments in infrastructure to support this growth, with this trend projected to continue in the future.

Sydney's geography significantly hampers where the city can expand, with the ocean to the east and national parks to the north, south and west. The Western City is identified as providing the only logical and feasible place for Sydney to expand, but with that comes challenges such as managing access to jobs and infrastructure.

Indeed, as Sydney's population grows the pressures on competing land uses will increase. Land will become increasingly scarce and more highly valued and the trade-off between conflicting land uses will become greater. Managing limited land supply, providing accessible housing and ensuring Sydneysiders have good access to jobs and services, all while maintaining Sydney's role as a global city, will become increasingly challenging.

To meet this challenge, we need to properly and proactively manage how we accommodate future land uses, and be sufficiently flexible in how we approach planning for the city's future in order to enable Sydney to adapt and respond to the demands of being a global city that can compete effectively on the world stage.

The Greater Sydney Commission released a thought leadership paper in 2018 titled 'A Metropolis that Works'. This paper outlined how industrial and urban services land is being permanently lost as alternative uses such as residential have encroached into these areas. On this basis, the Greater Sydney Commission required that Sydney's remaining industrially zoned land within the Eastern City, Central City, North and South Districts be protected and retained in order to prevent further loss of land.

However, while ensuring employment outcomes is important, it is imperative that these areas are able to respond to the evolving needs of the growing population. This means changes in urban services and functionality to cater for future growth but also to allow for technology and built form changes driven by trends such as supply-chain optimisation, mixed-use and co-location of facilities as well as e-commerce and fulfilment methods. This is increasingly important given land availability will only become more constrained.

***Restricting the flexibility of development in employment areas is likely to limit the ability for these precincts to evolve and adapt to the needs of the growing global city. These precincts should be able to evolve in order for new businesses and services to be able to locate in these precincts and unlock existing underutilised parts of Sydney. If this could be achieved, growth in jobs and urban services would be enhanced to the benefit of a growing global city.***

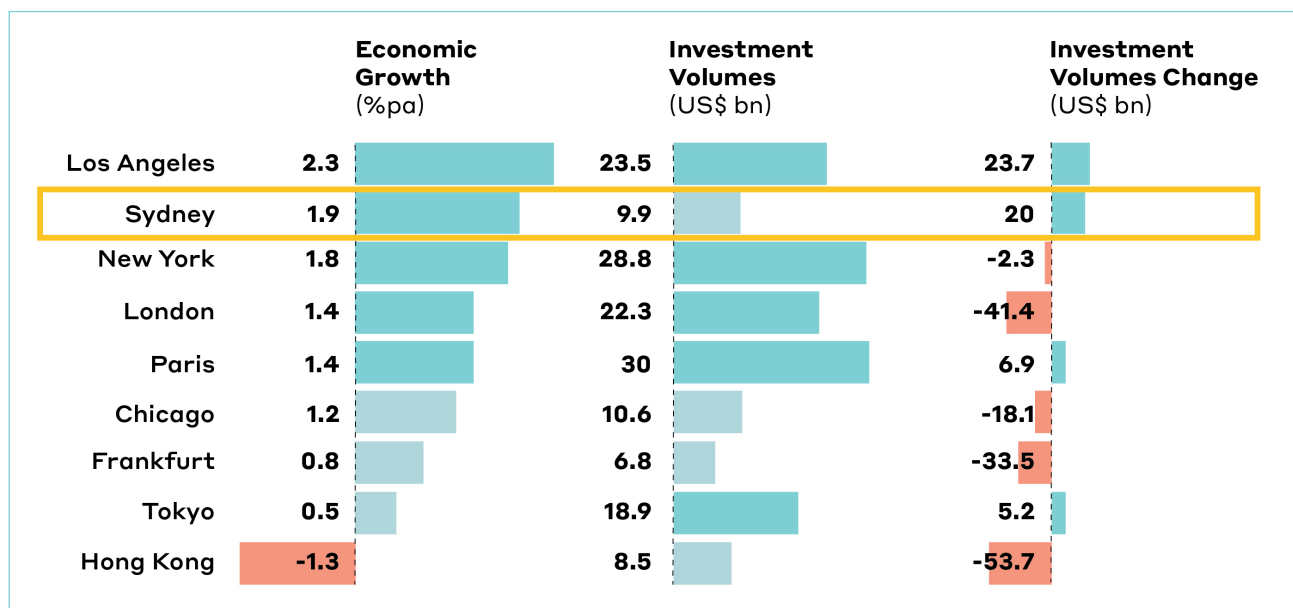


Figure 2 – Global cities economic growth and investment



# Sydney's Economic Precincts

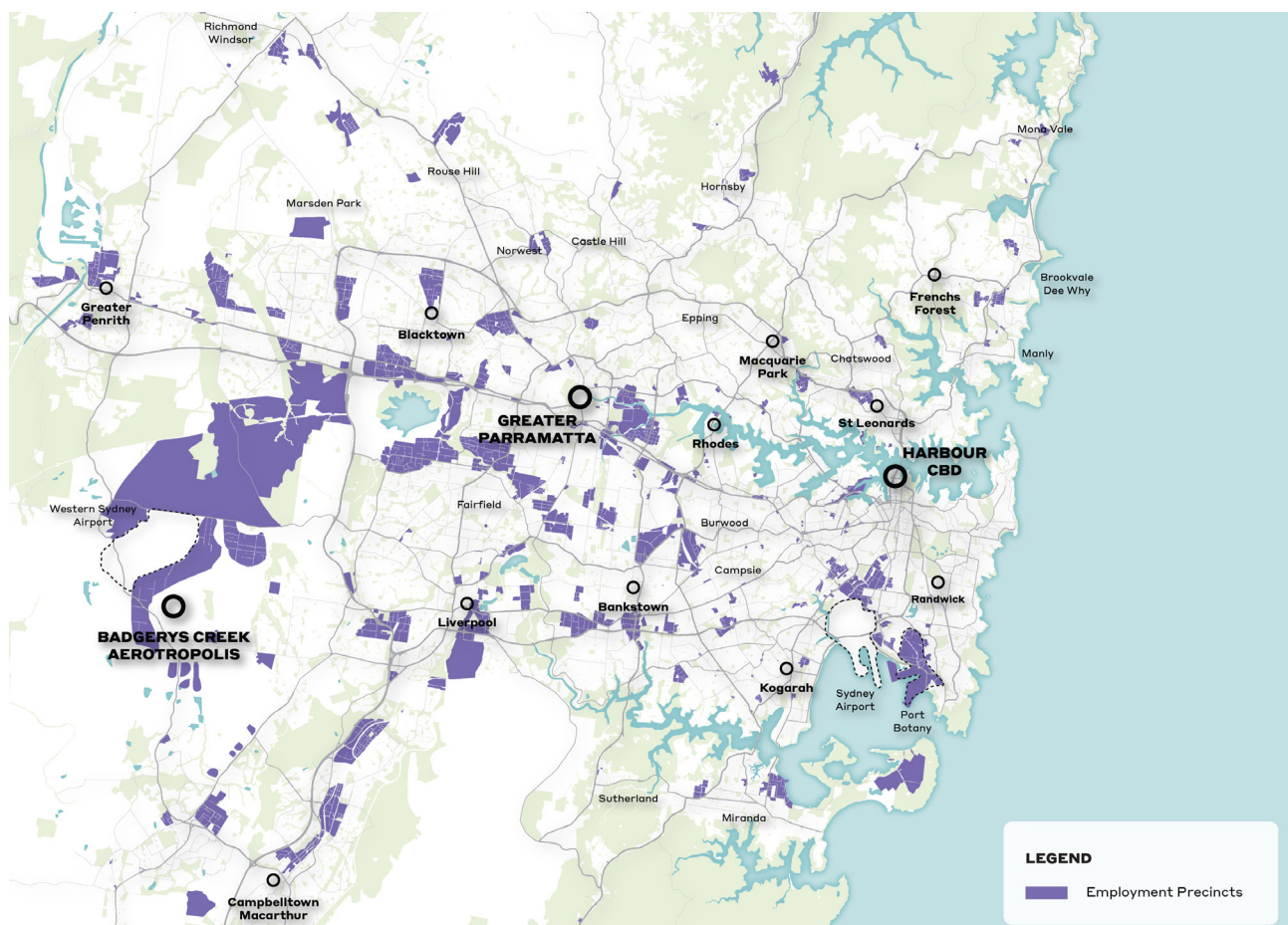
Accounting for 24.5% of Australia's total economic output, Greater Sydney is the economic engine room of the nation. Its estimated that Greater Sydney's \$460 billion economy supports some 500,000 businesses and over 2.6 million workers. Currently a significant share of the city's employment is located within the Eastern City. (ABS, City of Sydney, Department of Transport for NSW).

## Description of employment lands

Sydney's industrial and urban services lands are outlined in **Figure 3**. These are the key employment precincts outside of the traditional commercial office zones such as the Sydney CBD, North Sydney and Parramatta etc. As such, these precincts represent the areas that service Sydney, providing employment opportunities and supporting industries that serve the local, regional and international markets.

These employment precincts are primarily industrial lands and comprise a variety of land uses, including logistics, heavy and light manufacturing, wholesale and urban services, as well as ancillary retail and office uses. The largest employment precincts tend to be in the Central and Western City, however, the Eastern City also has some significant precincts around Alexandria and Port Botany.

Urban services are uses such as waste recycling and transfer, printing, motor vehicle repairs, construction depots, and utilities (electricity, water, gas supply). These services are well suited to serve local residents and the immediate community.



**Figure 3 – Sydney's Employment Precincts**

Source: Ethos Urban; Department of Planning Industry and Environment



## Drivers for employment locations

Different employment precincts have different attributes that can impact on the operation, functionality and market demand from tenants all of which ultimately define the success of the precinct.

Key drivers supporting growth and development in employment lands include:

- **Close to end user:** Businesses want to locate close to their customers
- **Clustering:** Businesses want to locate close to major suppliers as well as benefit from the co-location with other businesses and industries to form a critical mass and a key destination
- **Close to labour force:** Businesses want easy access to a large workforce
- **Proximity to infrastructure:** Access to key infrastructure such as major arterial roads, rail, ports and airports can be a key advantage to businesses reliant on these facilities for their business as well as for ease of distribution and fulfilment.
- **Commercial viability:** Depending on the business and industry, a range of factors can influence the commercial viability and therefore the appeal of one location over another. Some of these factors include:
  - land availability and vacancy
  - land values
  - rents
  - restrictions on land use or built form
  - legacy uses and costs associated with change of use/redevelopment (such as remediation)

These attributes vary between precincts, and this has resulted in varying levels of success and development across Sydney's employment precincts over time.

## Industry of employment clusters

Reflecting the global nature of Sydney's economy, a range of different industries and businesses exist, which operate at varying locations, sizes and scale, and as such, contribute differently to their local communities.

**Figure 4** (below) presents a breakdown of the key industries accounting for the majority of employment within each of the urban services employment lands in Sydney. A focus on the industry breakdown across key precincts has been undertaken.

For the purposes of this paper, businesses have been classified based on the ANZSIC Level 1 (Divisions) used by the Australia Bureau of Statistics (ABS). The industry of employment data has been calculated using the aggregated results of the Destination Zones (DZN) that are incorporated within each of the identified employment precincts.

A comparison of the top three industries represented within each of the key employment precincts across metropolitan Sydney is also presented.





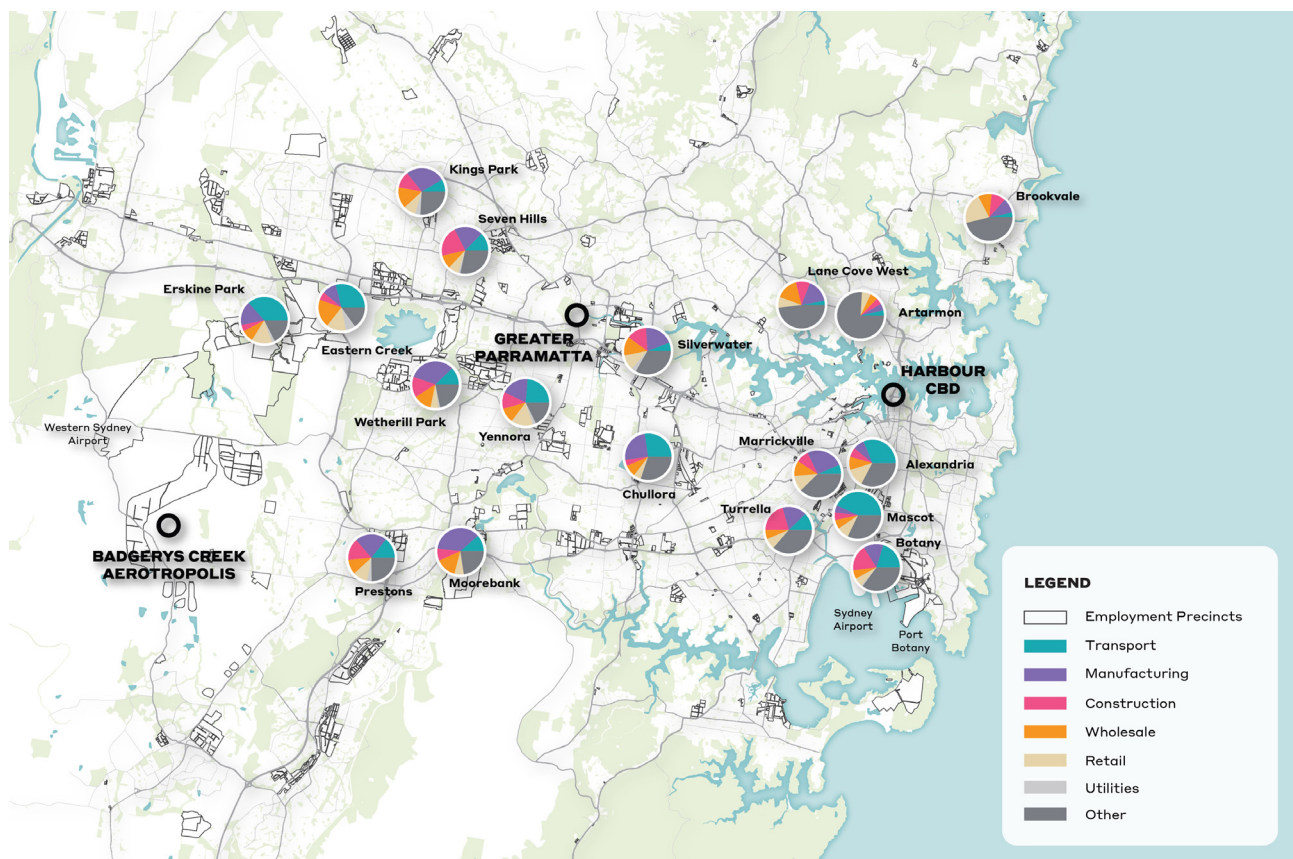
A review of the breakdown of industry and uses within the Sydney employment lands reveal a significant variation across the precincts. For example, several precincts within the East (such as Alexandria and Botany) have a greater diversity of industry representation within each employment precinct, with major industries including transport and logistics as well as retail trade operators.

By contrast in the Western employment lands, there is less industry diversification and a larger concentration of employment within the transport and logistics and manufacturing industries. While transport and logistics employment is significant across Sydney, these uses will vary, with the Eastern markets focused on last-mile and business to consumer delivery, whereas in the Western precincts

this is focused more around regional and metropolitan business to business distribution and fulfilment.

What this analysis confirms is that different geographies, and subsequently, different employment precincts, play different roles in serving the city and their local communities. As a result, there is no specific mix of businesses that defines all precincts as all are unique from one another. With Sydney expected to grow to a city of more than 8 million people there will be a need to support a further 1 million plus jobs in the future. In order for the city to support this growth we need to ensure that these employment precincts are operating in an efficient and viable way that supports growth and needs of the overall community.

*The key question is therefore how do we maximise the productivity of our employment precincts to ensure they support this future growth?*



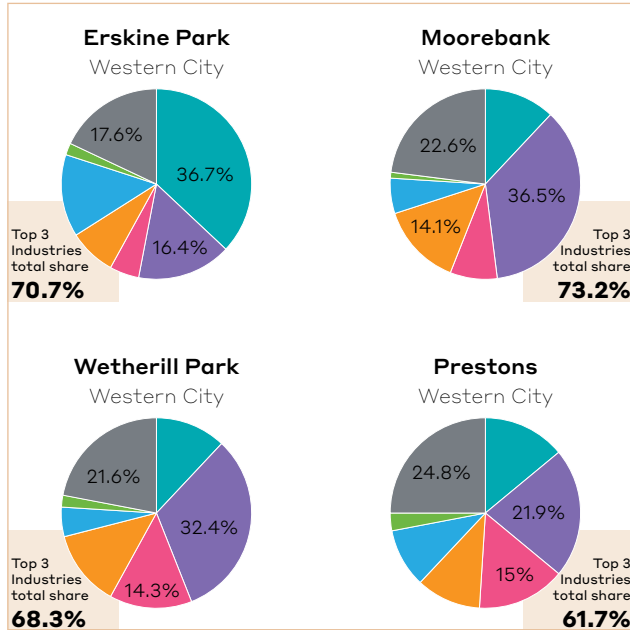
**Figure 4 – Industry Breakdown within Select Employment Precincts**

Source: ABS, Ethos Urban

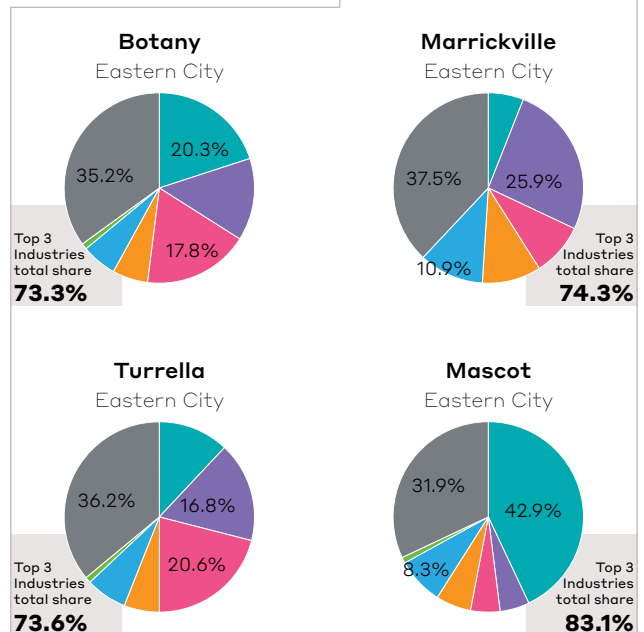
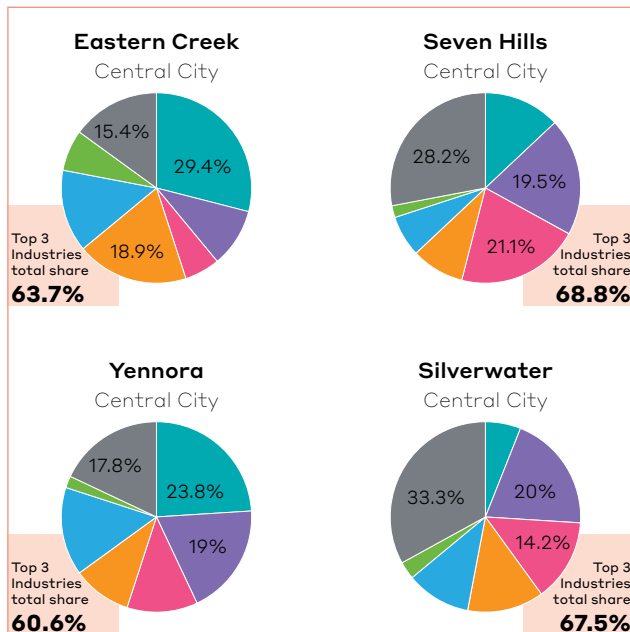
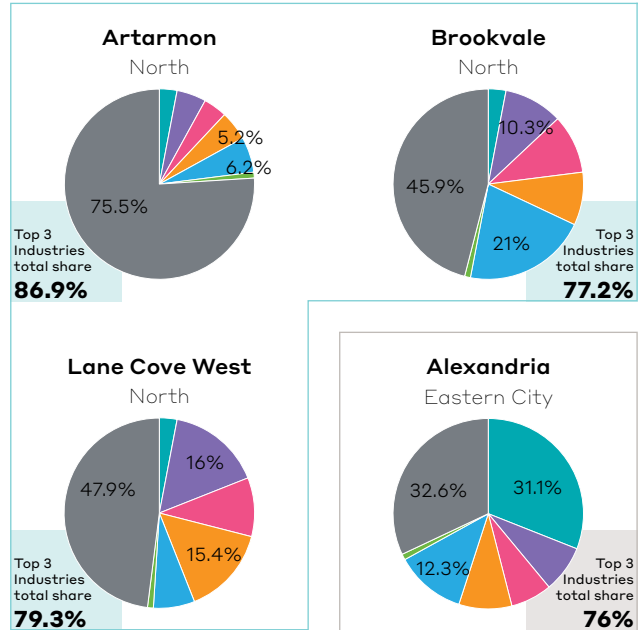
Notes: This map uses destination zones (DZN) that contain an employment precinct to approximate employment densities of these precincts. A limitation of this analysis is that precincts and destinations do not line up exactly as such, certain precincts, may overestimate employment densities due to spill effects, of capturing employment outside the employment lands but inside the destination zone.

## Top Industries within Selected Precincts

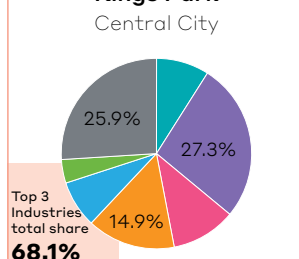
### WESTERN CITY



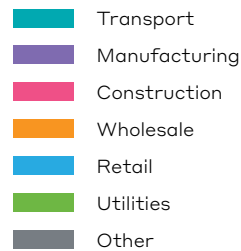
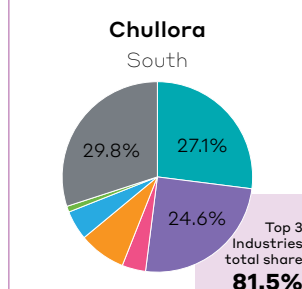
### NORTH



### CENTRAL CITY



### SOUTH



Source: ABS, GSC, Ethos Urban

### EASTERN CITY

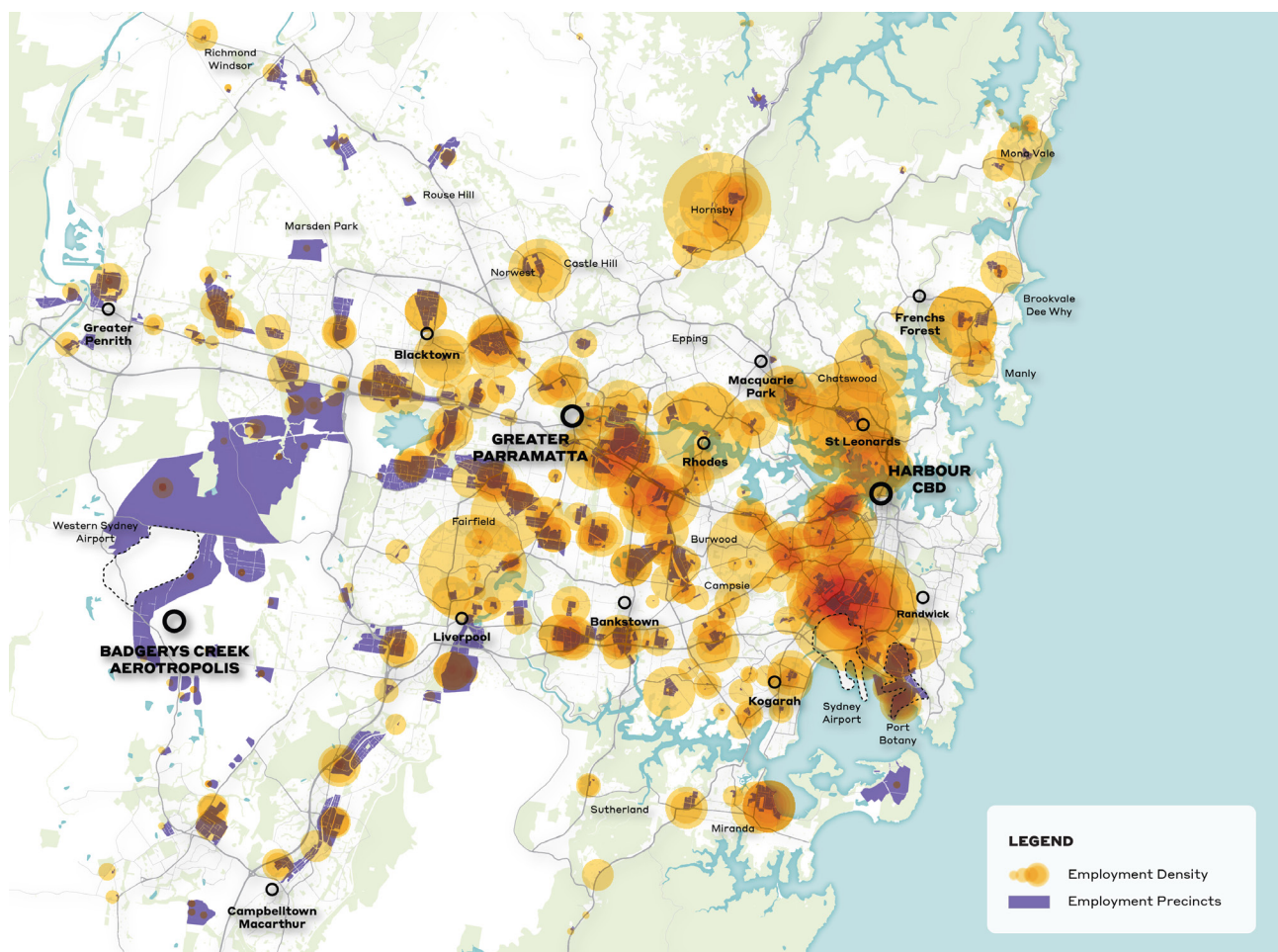


## Employment lands could operate more efficiently and do more to support growth opportunities

As part of this research we have investigated the adaptability and effectiveness of the various employment precincts across Sydney and show that there are several factors that suggest more can be done to support growth and development in these areas and therefore, ultimately support the continued growth of Sydney as a global city.

## Varied employment densities suggest opportunity for growth

**Figure 5** investigates the level of employment density across each of the Sydney employment areas (excluding traditional CBD areas).



**Figure 5 – Employment Densities within Employment Zones**

Source: ABS 2016; Ethos Urban; department of Planning Industry and Environment; nsw.gov.au

Notes: This map uses destination zones (DZN) that contain an employment precinct to approximate employment densities of these precincts. A limitation of this analysis is that precincts and destinations do not line up exactly as such, certain precincts, may overestimate employment densities due to spill effects, of capturing employment outside the employment lands but inside the destination zone.

A review of the employment precincts outlines that some precincts have high levels of activity, with relatively high employment densities. This is particularly evident around Alexandria, Mascot and Artarmon as well as to a lesser extent the inner west around Silverwater. However, what is also evident is that there are a number of employment precincts that have low employment densities. This is particularly true in the western suburbs around Erskine Park and Eastern Creek and reflect that while markets like Alexandria and Artarmon have a strong focus on serving the local community, the focus of the precincts in western Sydney are generally dominated by large, modern warehouses focused on transport and storage/distribution. These precincts are therefore less focused on the local community, but instead play a broader role in the economy serving regional, interstate and even international markets.

The variation in employment densities across precincts is quite pronounced, with precincts in Sydney's east significantly greater than precincts in the Sydney's West. For instance, Artarmon and Alexandria have employment densities over 8,500, while precincts such as St Marys and Eastern Creek having employment densities below 500. (See **Table 3** below)

The precincts with the highest employment densities also reflect the areas with the greatest diversity of industries and are also in the most land constrained parts of the city. These areas have had to evolve over time into urban services precincts, as is evident with examples such as Artarmon which have evolved to include retail and healthcare uses to complement surrounding facilities such as the North Shore health precinct and automotive facilities.

Other employment precincts across Sydney, however, record low employment densities which may indicate that these precincts no longer satisfy the key drivers of success. In some cases, this can be attributed to fragmented ownership or legacy structures or uses that are costly to change, however, the result are precincts that may not have not evolved. Other factors that can limit development in these precincts include land use amenity constraints from encroaching residential development, local roads are congested or otherwise not suitable for larger industrial trucks.

The result of this analysis indicates that all employment precincts serve different roles and that not all employment precincts are created equal.

There are many different employment precincts that have evolved over time to serve a range of different functions. In precincts with high employment densities these areas have typically moved up the value chain to higher paying, higher order jobs more associated with urban services, innovation and technology based jobs. However, while not all precincts need to evolve, others that are well placed to do so have not evolved. This includes emerging opportunities in centrally located precincts with low employment densities, as several precincts present positively for industrial drivers - being adjacent to major transport nodes and key existing and future transport infrastructure or residential growth areas. There is the opportunity for these precincts to also evolve and move up the value chain to support growth and development in the city and their local communities.





**Table 3** – Employment Densities by Precinct

PRECINCT	EMPLOYMENT (NO.)	EMPLOYMENT DENSITY (PER SQM)
Artarmon	19,120	11,090
Alexandria	37,340	8,760
Marrickville	9,100	4,420
Mascot	35,810	3,930
Silverwater	15,670	3,440
Seven Hills	10,880	2,910
Lane Cove West	9,890	2,450
Botany	6,880	2,280
Kings Park	8,920	2,150
Wetherill Park	17,810	1,840
Brookvale	14,400	1,670
Chullora	12,030	1,330
Prestons	8,360	1,110
Yennora	5,550	1,040
Moorebank	8,140	860
Erskine Park	5,680	680
Turrella	1,080	500
Eastern Creek	8,010	300

Source: ABS, Ethos Urban, Department of Planning Industry and Environment

Note: Precincts employment figures are calculated using the destination zones that intersect with the precinct. Employment and area figures are defined as the aggregation of the destination zones. As such, there are instances where precincts and destinations do not line up exactly and as such this analysis should be treated as a guide only.



## Longer travel times in the western parts of the city

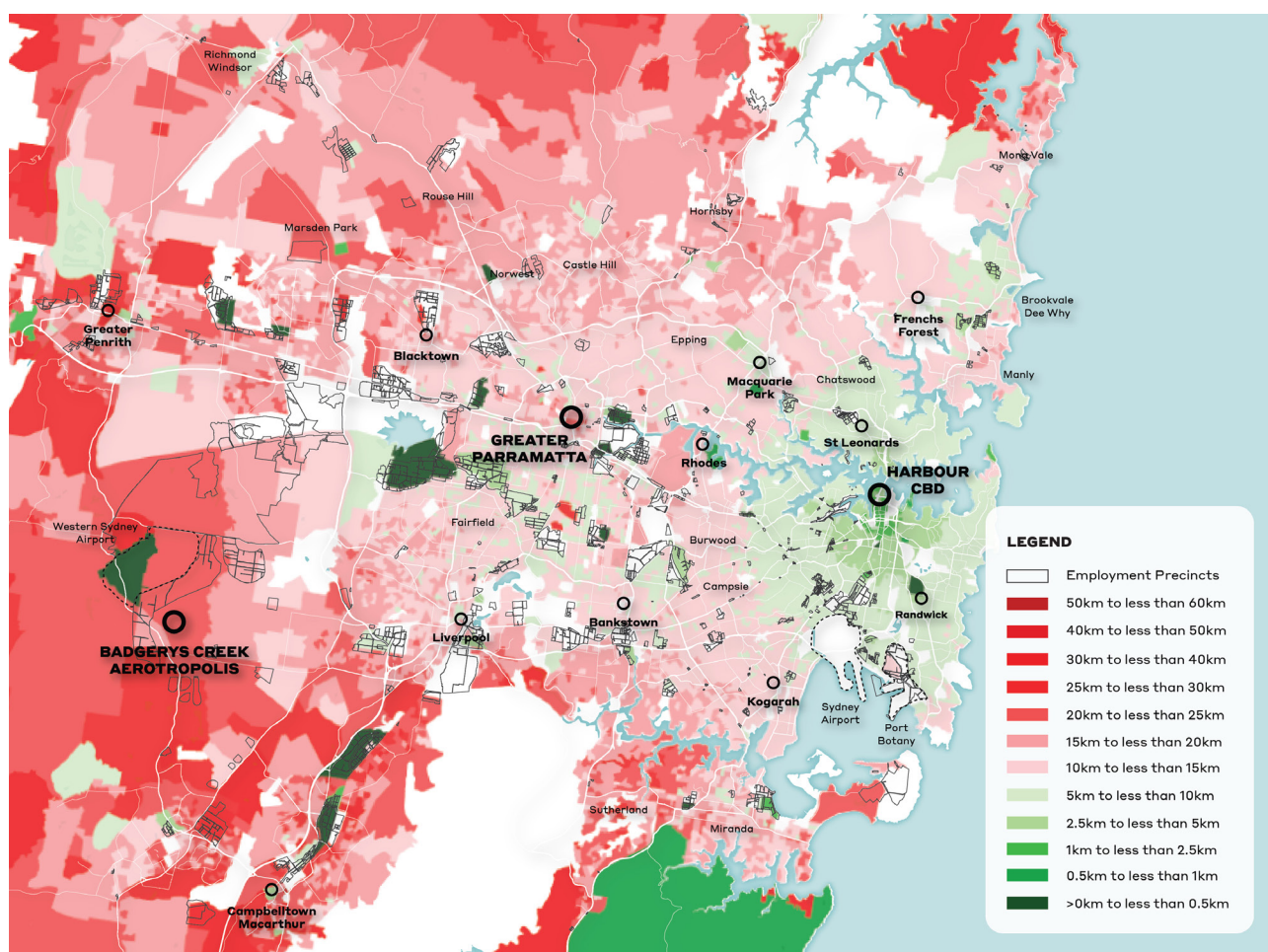
Is employment across the city distributed in an efficient manner? A strategic priority as outlined in the Metropolis That Works is the desire to establish 30 minute cities. One way to look at this is to examine the distance from a worker's place of residence to their place of work. The map in **Figure 6** below shows the distance travelled to work by the median resident at a statistical level 1 area (as defined by the ABS).

As shown in **Figure 6**, a significant proportion of residents living in the Eastern City typically live within 10 kilometres of their place of work – illustrated by the green shading in the map. This broadly implies that a significant share of residents live within 30 minutes of work. By contrast, fewer residents within the Central City live within 30 minutes, and even fewer in the Western City.

It is also clear that although the majority of employment lands are within the Central and Western City, they don't appear to be providing enough high quality job opportunities for residents as reflected in the lower employment densities and limited diversity of industries represented in these western parts of the city.

This indicates the disadvantage that residents in these areas have in terms of access to their place of work, and the need for these residents to travel long distances to access higher quality jobs. As Sydney's population continues to increase this is particularly important because over two-thirds of Sydney's future population growth is planned to be accommodated in the Central and Western Cities in the next 40 years.

With the Central and Western Cities accommodating the majority of employment land in terms of area, there is an opportunity to increase employment density to support jobs growth and better align local employment zones with needs in these areas.



**Figure 6 – Distance to Place of Work for the Median Residents**

Source: ABS, Ethos Urban



### **Varied performance across precincts is restricting the distribution of businesses and uses**

While the various industrial and employment precincts within Sydney show a range of employment density and industries, there is also varied performance and therefore overall appeal to key tenants and occupiers across the city.

As outlined previously, the success of employment precincts is determined by key drivers including:

- Demand drivers for occupiers – derived from locational attributes such as proximity to the major motorways, or the port/airport, and
- Supply drivers – including land and stock availability within the preferred market.

A review of the State Government Employment Lands Development Monitor 2019 indicates that the current industrial and urban services land available in Sydney represents less than five years forward supply (based on undeveloped, zoned and serviced land).

Despite the limited amount of land available, there remains significant variation across the employment areas which is evident when investigating the existing industrial market indicators such as rents, vacancy and land values (refer to **Table 4** below).

Precincts in the western parts of the city show lower average rental levels as well as greater land availability (at cheaper land values). On the other hand, inner city precincts, and particularly in South Sydney and North Sydney, there is limited availability with rents 40-50% higher than the western precincts and land values more than double.



While some of these variations are driven by market fundamentals, other factors restricting the growth and evolution of some precincts is resulting in an inefficient distribution of occupiers and development - with a large proportion of new industrial development having to occur further west due to the lack of supply or commercial viability in inner city markets. In some cases, this is despite the demand pressure from the local community and tenants.

***Inner city markets are suffering from the lack of flexibility and consequently some underutilised facilities remain while growing or new occupiers, who are better suited to these areas, are forced into other locations and as such, the distribution and depth of employment and uses in some inner city markets is being restricted.***

The result is some well-located precincts being left to older, underutilised employment uses and operations, rather than evolving and responding to higher order uses and opportunities.

The lack of flexibility can result in legacy uses in key precincts with the financial and environmental constraints acting as a barrier to relocation. Depending on the success of the owner and the maturity of the on-site business the investment required to relocate to more suitable premises is not always possible. As such, a more flexible approach in some precincts can help to optimise employment and business viability.

***Western Sydney accounts for the majority of employment land take-up in Sydney: recorded at 89% in 2018 (State Government Employment Lands Development Monitor 2019).***

**Table 4 – Industrial Market Key Indicators – Q4 2019**

	NORTH	SOUTH	INNER WEST	SOUTH WEST	OUTER WEST
<b>Vacancy</b>					
Prime	N/A	42,823 m <sup>2</sup>	52,791 m <sup>2</sup>	121,196 m <sup>2</sup>	191,831 m <sup>2</sup>
Secondary	N/A	0 m <sup>2</sup>	22,221 m <sup>2</sup>	29,623 m <sup>2</sup>	22,693 m <sup>2</sup>
<b>Land value</b>					
<5,000 m <sup>2</sup>	\$1,200–1,600 m <sup>2</sup>	\$2,750–3,000 m <sup>2</sup>	\$900–950 m <sup>2</sup>	\$700–750 m <sup>2</sup>	\$700–800 m <sup>2</sup>
1-5 ha	\$900–\$1,300 m <sup>2</sup>	\$1,800–2,200 m <sup>2</sup>	\$750–850 m <sup>2</sup>	\$500–575 m <sup>2</sup>	\$600–700 m <sup>2</sup>
<b>Rents</b>					
Prime	\$200 m <sup>2</sup>	\$201 m <sup>2</sup>	\$129 m <sup>2</sup>	\$112 m <sup>2</sup>	\$121 m <sup>2</sup>
Secondary	\$165 m <sup>2</sup>	\$176 m <sup>2</sup>	\$111 m <sup>2</sup>	\$98 m <sup>2</sup>	\$105 m <sup>2</sup>

Source: Knight Frank



# Evolution of Employment Precincts

As the city continues to grow, competition for land will increase which will further exacerbate the current market conditions (such as pressure on existing built form and uses, adding upward pressure on rents and land values) that act as a barrier to entry for new businesses looking to locate in some of Sydney's employment precincts. Given Sydney's forecast population and jobs growth, it is now more important than ever that we look to provide an environment that provides opportunities for new businesses to start-up and flourish in an economically viable manner. This raises the question of whether Sydney's employment lands could be doing more and whether a blanket approach that treats all employment lands the same is the most effective strategy for maximising the productivity of these lands.

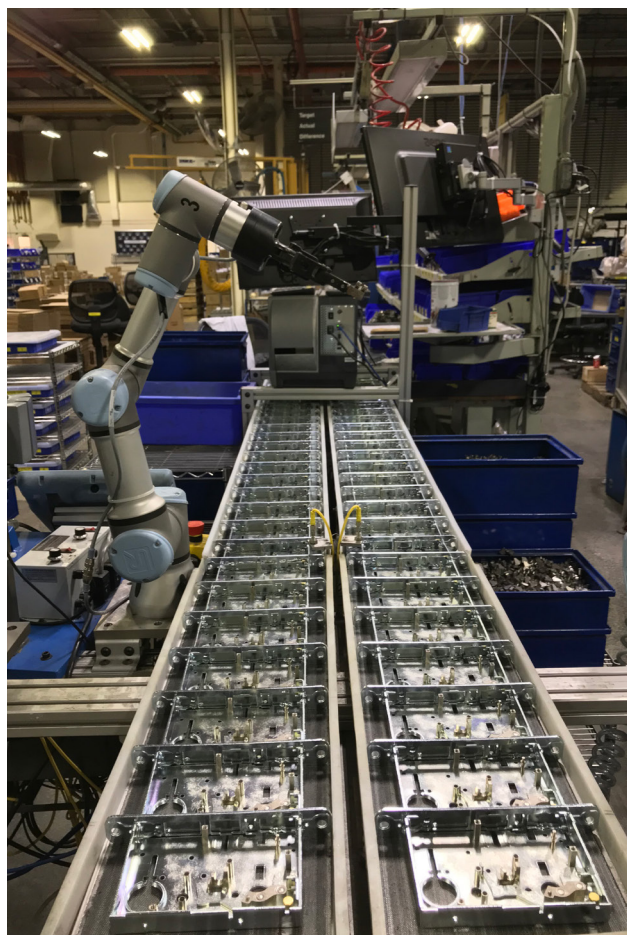
The role and function of Sydney's employment precincts varies just as their size and strategic importance varies. Different geographies play different roles within Greater Sydney and as a result, a standardised approach to all precincts does not reflect the different role of these precincts.

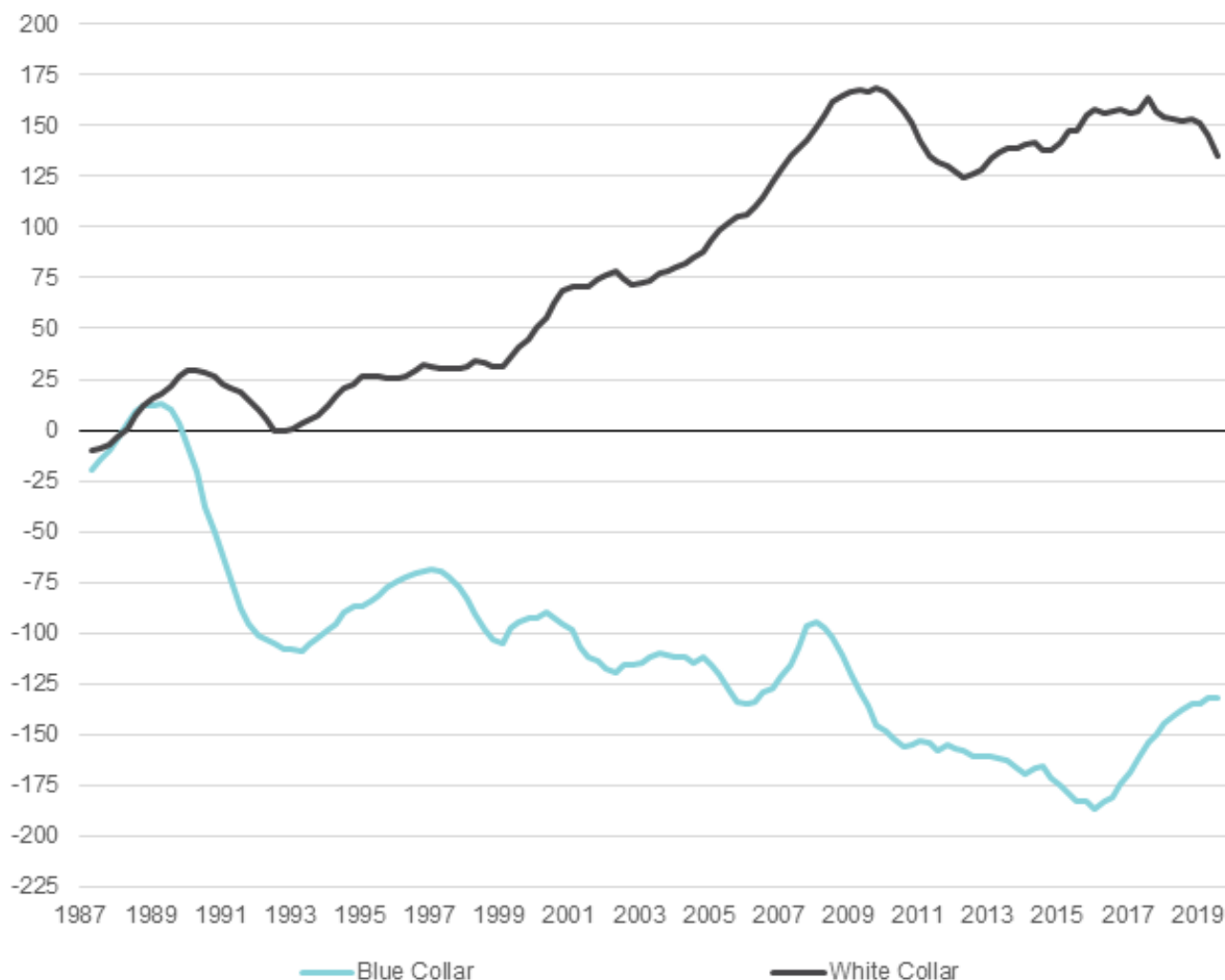
There is no 'one size fits all' approach to employment lands as each precinct is different, with different attributes, drivers and different roles required to service their local community as well as the broader economy. Based on our analysis it is evident that some current employment precincts could support growth and development more effectively in terms of diversity of uses, employment density and commercial viability. With a greater focus on increased flexibility, these precincts could be reimagined to provide more jobs in more sectors, and in doing so better serve the needs of Sydney – improving our overall competitiveness on both the national and international stage.



## Jobs and employment lands are evolving

As our cities have evolved over time, so too has the number and types of jobs where people work. Since the late 1980s in Australia, the composition of the workforce has undergone a significant shift, with the share of blue collar jobs declining and the share of white collar jobs increasing. This shift is also evident in traditional blue collar industries that are typically found in employment lands, such as Manufacturing, Transport, Postal and Warehousing. As **Figure 7** below shows, since 1988 the number of white collar jobs has increased by a total of around 134,000, while the number of blue collar jobs has declined by around 131,000 jobs over the same period. Driving this decrease are declines in blue collar occupations such as Technicians, Trades Workers and Labourers. Interestingly, the number of Machinery Operators and Trades Workers has increased, which could be explained by increasing levels of automation in these industries (i.e. e-commerce services).





**Figure 7** – Cumulative Change in White Collar and Blue Collar Jobs in the Manufacturing and Transport, Postal and Warehousing Industries since 1988 (eight quarter rolling average)

Source: ABS, Ethos Urban

The change in the labour market has also transformed our cities, giving rise to significant employment centres such as the Sydney CBD and fringe CBD markets where white-collar knowledge intensive industries locate and compete for highly skilled workers. In turn, these high skilled workers prefer to live closer to work, and have helped to facilitate the gentrification of some inner city areas.

This is a phenomenon that has been occurring across a number of cities globally, and has been driven as a result of economic development and a more globalised economy. Looking forward, the increasing role of technology and automation will mean that the gap between white-collar and blue-collar employment will continue, with implications for the evolution of our cities in the future.

Employment is changing rapidly, with major trends shaping the outlook for key employment sectors such as the industrial sector which is evolving through developments in technology and automation, infrastructure investment as well as supply-chain and logistics operations.

An increasingly sophisticated industrial and urban services sector has resulted in the transition away from heavy manufacturing in favour of less physically intensive uses such as knowledge and service sector jobs. This is particularly true in inner city areas which primarily accommodate light industrial and urban service uses.



As the industrial sector embraces automation, warehousing also requires a shift towards a more specialised white collar workforce required to oversee and manage increasingly sophisticated machinery and equipment, as well as increased number of sales and administration staff required on-site. This also has implications for the types of buildings and uses required in these precincts, with a need for more traditional commercial office space and amenities to accommodate the increasing white collar workforce at specialised warehouses and facilities.

Alongside this trend, technology is enabling cleaner industrial and employment precincts. In our modern post-industrial cities, traditional factories and manufacturing operations are less common, with much of the traditional heavy industrial uses shifting away from urbanised areas to other parts of the city where land is more affordable, less constrained and better located to support these business operations. Production facilities have also become far more efficient, with stricter environmental controls and standards, together with technological advancements in building materials and operations. This is leading to industrial uses and facilities that are better designed and have a reduced impact on the surrounding area, which in turn, is supporting a greater diversity of facilities and a blending of uses that would not have been possible in previous years.

Technology and land constrained employment areas, particularly in inner city locations, is also resulting in a shift towards multi-storey industrial facilities. While not yet common in Australia, this trend is already well established in South-East Asian markets where land is even more constrained, however, the first true multi-storey industrial facilities are also now occurring in the U.S.



## Opportunity to reimagine employment lands

The analysis has outlined that not all employment precincts are created equal, and while some precincts operate successfully and provide high-order employment opportunities, others have not been able to adapt and evolve as effectively. As a result, if Sydney wants to continue to compete on a global stage then there is a need to reimagine how we use our employment lands in order to support growth and maximise their productivity.

Some questions that arise include:

*Does protecting employment lands make them perform better?*

*Does protecting these precincts with a standardised approach support the reimagination, innovation and growth of these precincts going forward?*

There are several examples where employment precincts in Sydney are not operating as effectively as they could, with a range of industries, employment densities, employee travel times and varied performance across the precincts.

Some employment precincts are derelict or have legacy uses that are no longer suitable in the evolving market with examples including Turrella, Lane Cove and precincts like Camellia. For several of these legacy uses there are significant barriers restricting their ability to relocate including land use, environmental constraints that are costly to rectify (e.g. contamination) and/or financial constraints such as the supply of suitably serviced and zoned land at an affordable price.

These sort of friction points are creating inefficient outcomes for land uses in these employment precincts, which are finding it increasingly difficult to change and evolve as the surrounding area and their surrounding market changes.

There is a need to be innovative in order to adapt to the evolving global landscape and emerging trends. Jobs are changing and we need the right kind of jobs to match the local demographic and evolving skills base. An opportunity exists for these precincts to be optimised in order to enable more employment, more industries and therefore, more economic growth in Sydney.

In a post-COVID world, there becomes a greater need to accelerate the pace of change and to adapt to respond to the shifting needs of businesses, workers and consumers. There is an opportunity to leverage investment to help stimulate growth and better position Sydney's employment lands for the future.

While it is important to protect and support employment, if these precincts could be reimagined to take advantage of the changing employment and technology trends then opportunities may arise to unlock these precincts for future development to the benefit of the local community and the broader metropolitan area. How could we enable these locations to be unlocked?

A reimagined precinct could enable other uses, such as commercial, supermarket 'dark stores', multi-storey industrial facilities or co-locating residential components which would benefit employment and amenity. Further these precincts could provide the opportunity to enhance and protect domestic industries including enabling more diversified and resilient supply-chains and growing industries like advanced manufacturing (e.g. 3D printing).

These uses are likely to be more appropriate in some precincts than others and not every employment precinct will be able to support the same mix of uses. Employment and urban services land will however play a unique role for every precinct based on their individual attributes such as location, access to the infrastructure, workforce etc. Some precincts will serve the primary industry role required for Sydney while others will be more high-tech integrated mixed-use precincts serving a broader market. However, if enabling economic and 'market' forces to determine the future of these precincts can support the continued growth and global nature of Sydney then this should be considered.

Overseas experience suggests that there are lessons that Sydney can learn from other global cities that face similar issues, with several cities tackling the issues differently but all attempting to be more flexible and innovative in their approach to employment land and urban services. Indeed, Sydney is not alone in tackling this challenge, but it will be left behind by its global competitors if it does not find a way to evolve and make better use of its employment lands.

## Potential benefits of reimagined employment lands

Reimagining employment lands can allow a more flexible approach to the development and operation of these precincts that can ultimately facilitate a greater mix of uses and a greater diversity and density of employment. If this can be achieved a range of benefits can be realised including:

- **A resilient city:** In the face of changing local and global conditions, a flexible approach will ensure that employment land uses can more readily respond and adapt to changes in technology and market conditions both domestically and abroad.
- **A productive city:** A reimagined approach can allow for higher order uses and greater employment densities where they are needed to best service the needs and demands of their local and regional communities.
- **A global city:** Reimagining precincts can help to unlock underutilised locations by reducing barriers for businesses and investment in employment lands. In turn, this will help to support growth through the efficient and optimal allocation of land uses and employment and allow Sydney to continue to compete on a global stage.

One thing is clear, we need to be smarter about how we plan for these precincts in order to satisfy future growth, perform better and serve the city more effectively. How can we do that? There are numerous examples of highly efficient mixed use employment precincts domestically and internationally and we should examine these to better understand what makes them successful so that we can harness that sort of potential in Sydney's employment lands. Following on from this, Ethos Urban's next paper will explore how reimagination of employment precincts could be achieved from a Design perspective.





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