

Sydney's Innovation Corridors

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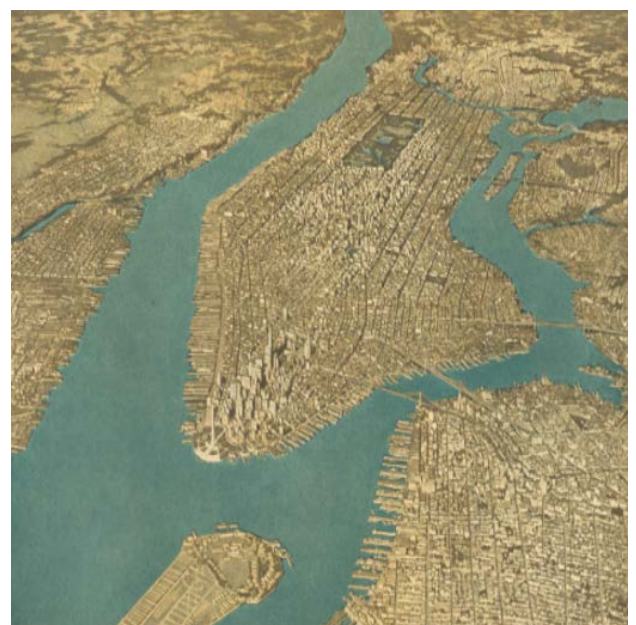
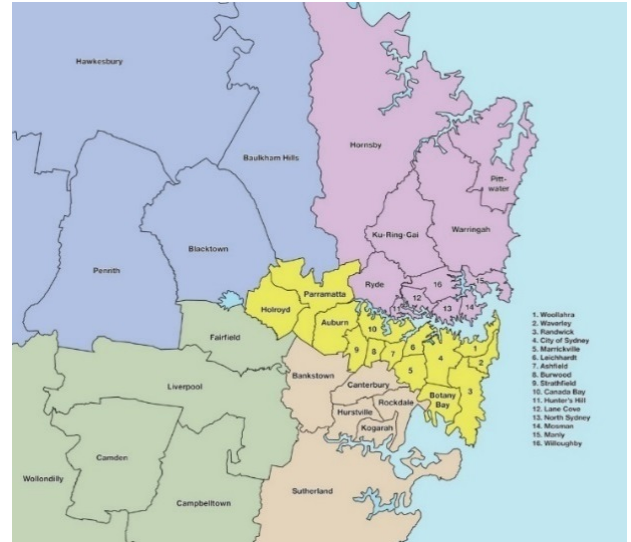
Architects and Urban Planners

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Two years ago, I proposed a Sub-region, or district in today's terms, be formed stretching between the Sydney CBD to Parramatta CBD, a 20km corridor bounded by the Parramatta River to the north and straddling the Western Railway, the corridor, incidentally, is the same length as Manhattan Island. It is this corridor I suggested be Sydney's innovation district containing the bulk of Sydney's innovation and knowledge industries supported by the bulk of residential suburbs which are currently the most attractive to the young, educated millennials who wish to live, not only within easy reach of their places of work, but where they can meet their colleagues, collaborate with their peers, preferably by walking or by public transport.

Brookings Institutes Vision of an Innovation District

The Brookings Institute of Washington gives us the lead as to what the innovation companies and their workers are seeking in a location for their companies and workplaces. Whilst the successful innovation districts have generally been greenfield areas such as Silicon Valley, the recent trend in America and a number of world cities is for innovation firms together with their talented and skilled workforce are choosing to congregate and co-locate in established, compact, amenity rich enclaves in established areas, particularly, those with proximity to major CBDs.



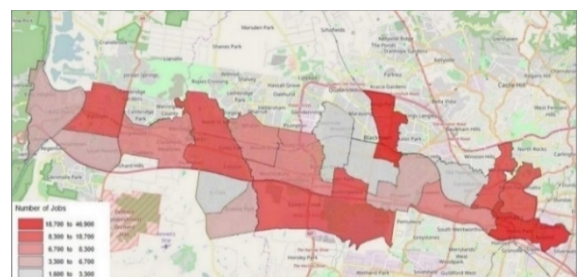
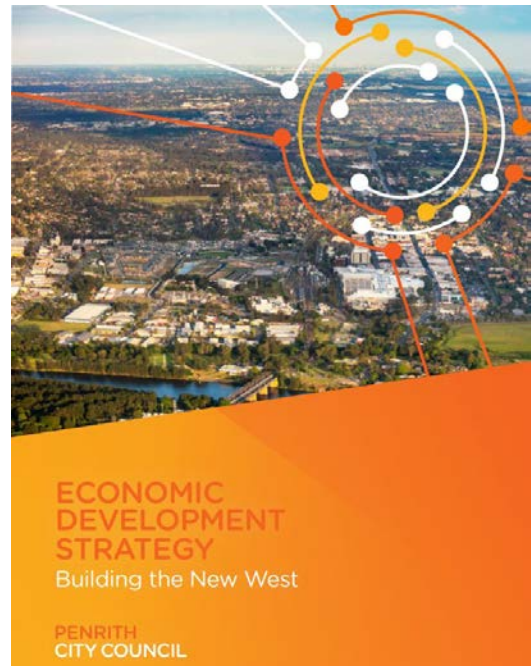
Brookings have found that many innovation districts are a mix of entrepreneurs, educational institutions, start-ups and medical innovators all connected by transit, powered by clean energy wired for digital technology and fuelled by caffeine. I felt that the Sydney-Parramatta CBD's corridor best fulfilled this.

“Economic Development strategy – Building the New West.”

Then earlier this year, Penrith Council released a significant economic paper. The report proposed that a Penrith-Parramatta innovation corridor be formed given the rapid rise of Western Sydney's population, it's growing, young, tertiary educated population, the investment in health and education precincts and what is expected to be a major game-changer, the Western Sydney Airport (WSA).

The corridor would include the Nepean Hospital, the adjacent Kingswood-Werrington tertiary education precinct containing a major campus of Western Sydney University (WSU) and a TAFE college. Then on to St Marys and Blacktown centre with its major hospital and on to Westmead, the largest health precinct in the nation and Parramatta CBD with the two campuses of WSU thereby forming a possible innovation corridor stretching from the Blue Mountains to the Sydney CBD.

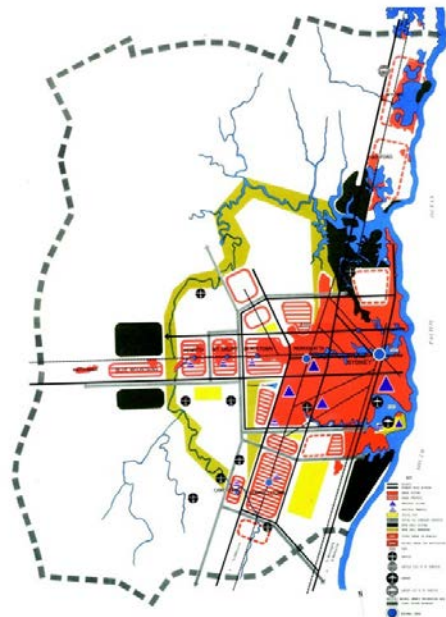
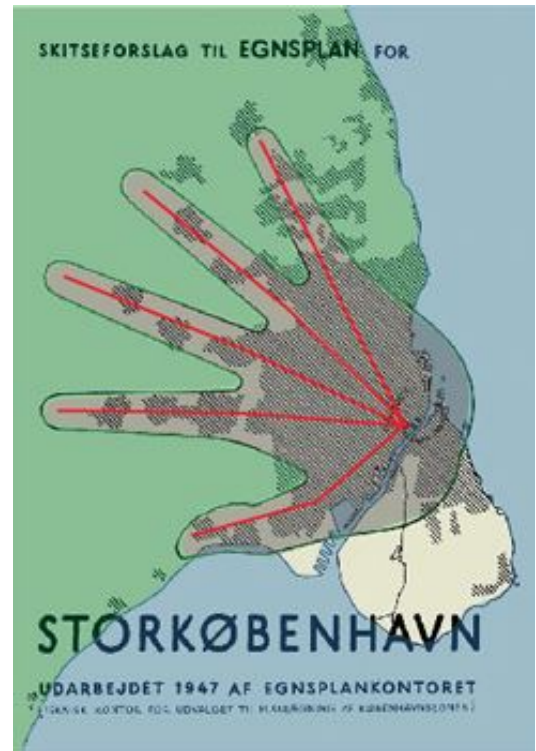
Whilst this east-west corridor serves a large proportion of Sydney's current and future population, there is a need to cater for a huge area of the Sydney Region not served by this east-west corridor.



The Sydney Region Outline Plan 1970-2000

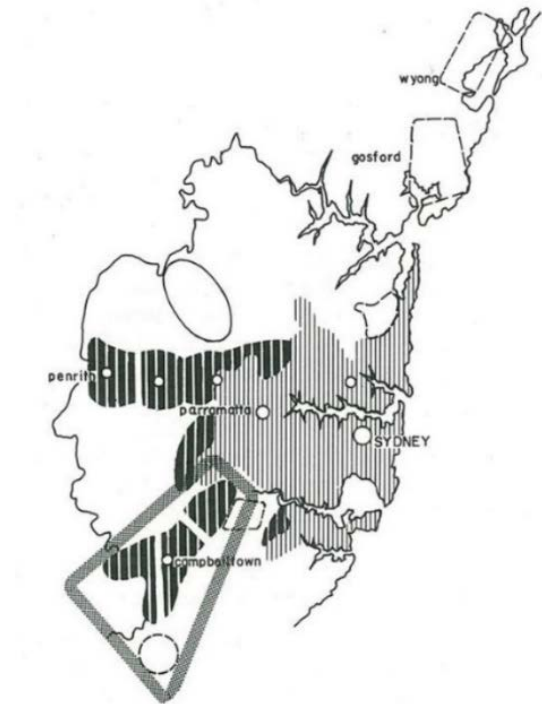
Copenhagen's famous "*finger*" plan in 1947 which was adopted as the model for the 1968 Sydney Region Outline Plan (SROP) which has shaped Sydney to this day.

The fingers of the outstretched hand, as in Copenhagen, were along existing and proposed rail lines with a series of "*new towns*" threaded onto the rail line like, "*beads on a string*". It is two of these urban "*fingers*" which can now form the predominantly north-south corridors, supplementing the proposed east-west corridor.



The Campbelltown/Macarthur – Liverpool-Parramatta Corridor

This corridor made up the South West sector of the SROP stretching between the Campbelltown/Macarthur centre to Liverpool both of which together with Penrith are regional city centres second in the centres hierarchy, and then on to Parramatta, Sydney's second CBD. This corridor is served by the Southern Railway and the Cumberland line, which serves Parramatta and Westmead directly.



The Campbelltown-Macarthur Regional City Centre

The Campbelltown-Macarthur Regional City Centre contains the Campbelltown hospital, a campus of WSU, a regional TAFE, and the South West's largest regional retail centre, Macarthur Square. The Macarthur centre incorporates the historic Campbelltown centre which dates back to 1820 and could form the "inner area" so sought after by the young innovation workforce in Sydney's inner areas.



Liverpool Regional Centre

Liverpool is also an historic centre laid out by Robert Hoddle in 1827, prior to him drawing up the plan for the Centre of Melbourne. Liverpool has a major hospital complex and is currently negotiating for a university campus.

The corridor then extends northwards via Fairfield centre and onto Parramatta and Westmead via the Cumberland line. Liverpool council area will house the Western Sydney Airport (WSA) at Badgerys Creek which is likely to be linked to Liverpool centre and Bankstown centre by the proposed South West Metro.

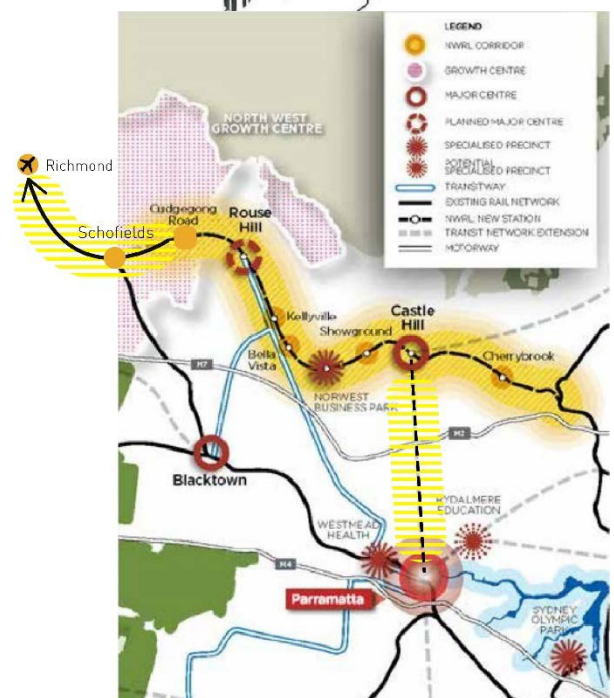
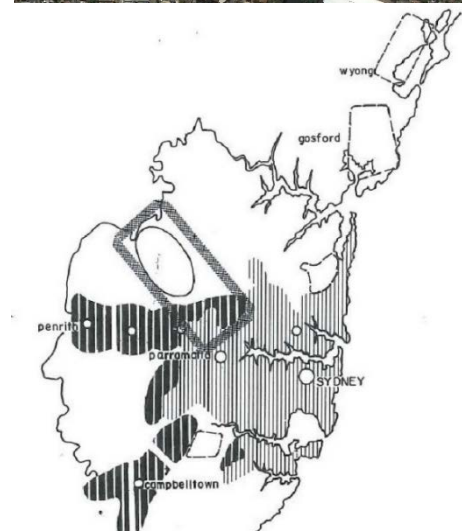


North West Sector

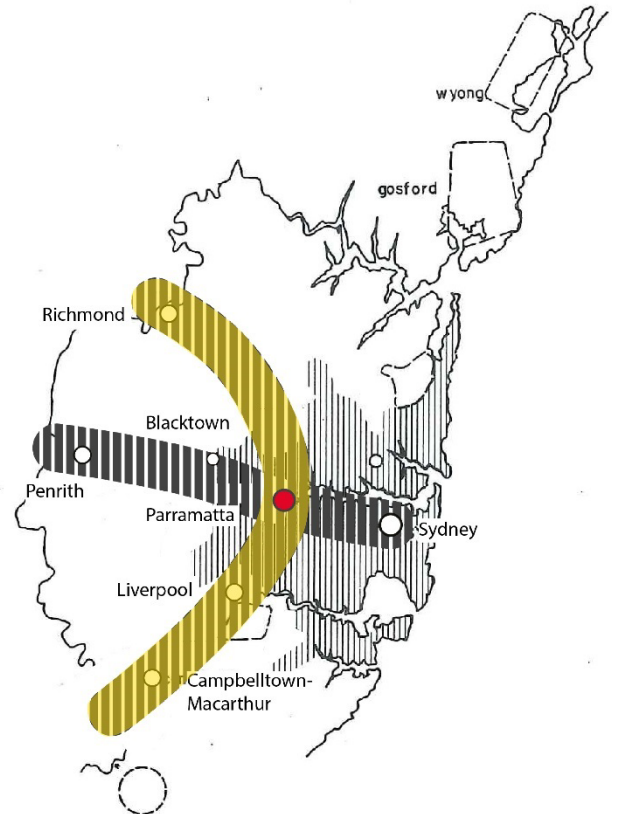
That leaves Sydney's North West Sector, the last to be developed of the SROP Western Sydney's corridors due to not being served at the time by a rail link. The North-West Metro is now under construction and expected to be operational in 2019.

Whilst this Metro line links the NW sector to Macquarie Park, Chatswood and then the Sydney CBD, it requires a link between Castle Hill centre to Parramatta once the North-West Metro is completed, forming a corridor between Marsden Park, Rouse Hill, Northwest Business Park, Castle Hill and then with a possible new 10km metro line to link with Parramatta.

What is important is that the NW Metro intersects with the existing Richmond rail line at Schofields which serves Richmond RAAF base, one of Australia's largest military bases, and a campus of WSU.



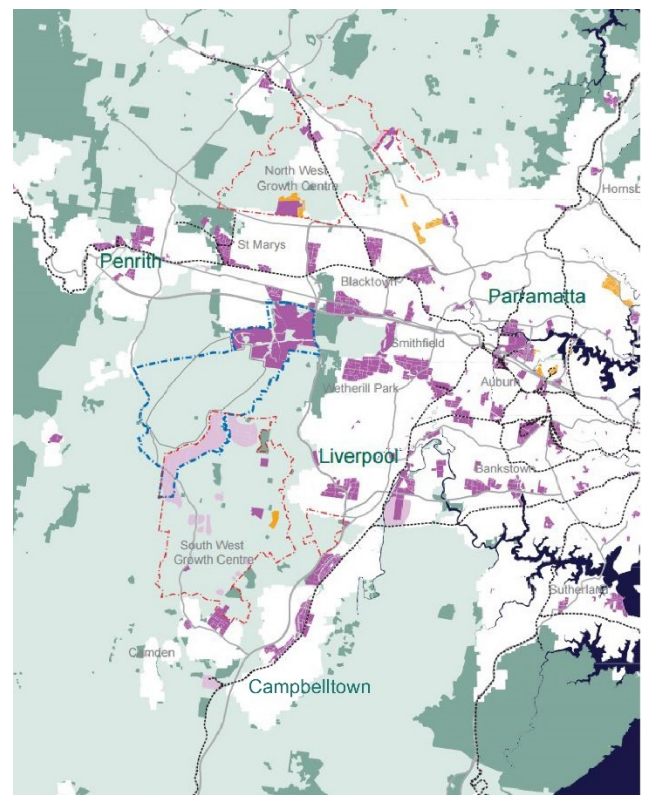
There will then be four corridors linking the Regional City Centres, Penrith, Campbelltown-Macarthur and Liverpool together with the Sydney CBD, with Parramatta being the fulcrum of the two east-west and north-south innovation corridors reinforcing Parramatta as the geographic and population centroid of the Sydney Region.



The Future of Employment Lands

One may question the value of employment land in today's economy with the growth of the services industry and the decline in manufacturing.

Well, here are some thoughts on this issue. First let me quote from my namesake, no relation, Arnoud De Meyer, the President of the Singapore Management University's recent article in the Straits Times on Singapore's situation regarding its economy.



Economic Affairs - Arnoud De Meyer

Manufacturing in Singapore is not an outmoded sector. Instead, it is a job multiplier and can be a source of innovation as well as a vital way to plug the Republic into the global manufacturing network.

I am often asked why this country still needs a robust manufacturing sector. Would it not be better for Singapore to become a pure service economy? Would it not be better to leave that to China, India, Vietnam and other countries with low labour costs? My answer is a resounding no! Manufacturing accounts for 20 per cent of Singapore's GDP. I am deeply convinced that we need to keep it that way, if not increase it. Why? I see three good reasons...

Economic Affairs – Arnoud De Meyer

Arnoud De Meyer, the President of the Singapore Management University's recent article in the Straits Times of Singapore's situation regarding its economy.

Firstly, many service jobs are directly generated by manufacturing activities.

Second, according to a series of studies in the United Kingdom, manufacturers are more inclined to innovate

Finally, without manufacturing, it is often difficult to capture the value in the other parts of the chain, such as R&D, engineering, distribution, service after sales, etc.

Boeing New 787-10 Dreamliner

(The Sydney Morning Herald – April 15-16, 2017)

Earlier this year US President Donald Trump launched Boeing's new 787-10 Dreamliner and declared it a triumph of American manufacturing. *"we're here today to celebrate American engineering and American manufacturing,"* he told a crowd of 5000 cheering Boeing workers in South Carolina.

What the president didn't say was that Boeing's newest aircraft is the least American-made in the company's 101-year history. It has **Canadian** landing gears, **Chinese** rudders, **Japanese** wings, **South Korean** wing tips and **Italian** fuselage. And its **movable trailing edges** are shipped to the US all the way from **Port Melbourne**, where Boeing maintains a **1200**-strong workforce.

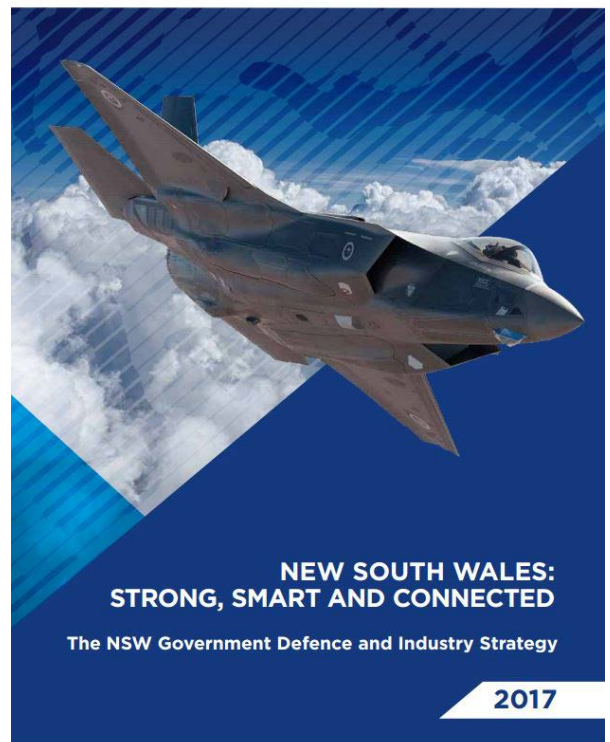
The NSW Government Defence and Industry Strategy – 2017

The NSW government will work closely with the defence industry to attract an increased proportion of Defence investment in the state and help small and medium sized enterprises gain better access to local and global supply chain opportunities.

Defence and the industry that supports it currently directly employs **26,500** people in NSW.

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The Honourable Niall Blair MLC Minister for Primary Industries has outlined a number of strategies including:

Explore Western Sydney Airport as a future aerospace precinct.

NSW has several key training facilities that provide skills for both defence and wider industry requirements.

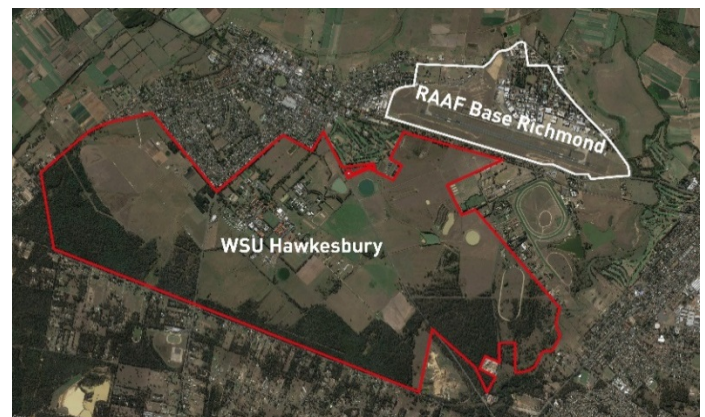
Enhance defence and wider industry collaboration networks with universities to enable faster development and commercialisation of technologies.

To quote from the report:

NSW is currently home to a significant proportion of Australia's Defence capabilities, hosting the largest numbers of Defence bases and facilities more than 80 across the state.

This includes the RAAF base at Richmond, (part of the proposed north-west innovation corridor), where the report suggests the proposed redevelopment upgrade for Richmond air base.

Western Sydney is a major driver of advanced manufacturing activity with significant linkages to Defence including a number of aerospace activities, materials and technologies.



Conclusions & Recommendation

I accept that this is an ambitious proposal to have Sydney served by four innovation corridors by 2051 however with Sydney heading towards a population of 8 million people by mid-century, the recent population of London, of which 4.5 million will live in Western Sydney, I suggest we need to take an ambitious view of Sydney's future economy and to address one of the biggest emerging issues, that of massive traffic congestion and public transport over-crowding.

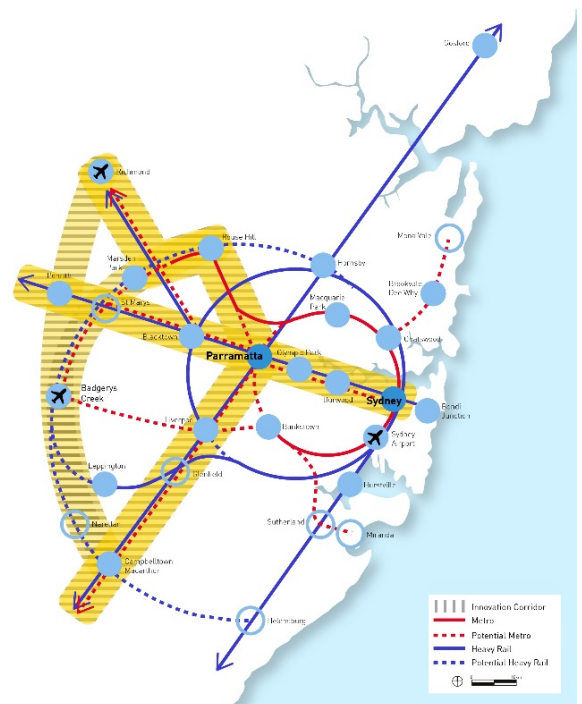
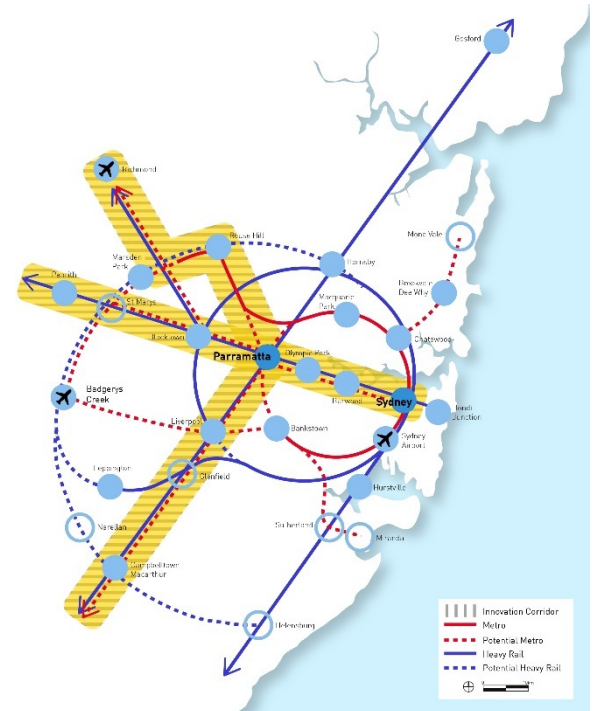
With over two million people expected in the Western Sydney workforce it will be imperative to ensure that local jobs are available which will be required in the next three or four decades.

The innovation corridors for Western Sydney need to be planned now to ensure that their attributes are in place when needed such as employment lands served by rail.

In addition, the major growing Regional City Centres of Campbelltown/Macarthur, Liverpool and Penrith are strengthened to serve a doubling of population in the next three to four decades. There will need to be a focus on enhancing Parramatta CBD which should become the administrative centre of NSW, just as Sacramento is the administrative centre of California.

I am grateful to Jeff Lawrence, Chief Planner of Campbelltown City Council for his suggestion that I include two longer term innovation corridors, both of which include the Western Sydney Airport at Badgerys Creek.

The first is via the extension of the NW Metro from Rouse Hill to Campbelltown/Macarthur regional city centre via Marsden Park, St Marys, WSA and Camden's urban areas.



The second is one proposed by WSU whose 880ha campus at Richmond, adjacent to the RAAF base is linked to Penrith regional city centre, to WSA and on to Campbelltown/Macarthur regional city centre.

The challenge for these two corridors is to have the land reserved as soon as possible.

The key issue is that those current employment lands served by rail which are forming the foundation of the proposed innovation corridors are not compromised by rezoning to non-employment uses for short term gains as they will not be capable of being replicated with a consequential set back to the state and specifically Western Sydney.