



THE MCKELL INSTITUTE

Giving the West the Best

Why we should have an architectural competition
to design the Western Sydney Airport
at Badgerys Creek

DISCUSSION PAPER



About the McKell Institute

The McKell Institute is an independent, not-for-profit public policy institute dedicated to developing practical policy ideas and contributing to public debate.

The McKell Institute's key areas of activity include producing policy research papers, hosting policy roundtable discussions and organising public lectures and debates.

The McKell Institute takes its name from New South Wales' wartime Premier and Governor-General of Australia, William McKell.

William McKell made a powerful contribution to both New South Wales and Australian society through progressive social, economic and environmental reforms.

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Contents

Why Western Sydney needs its own airport	4
The proposal for a Western Sydney Airport architectural competition	5
How an airport would benefit Western Sydney	6
Architectural competitions help to bring the community along with us	7
Western Sydney's airport needs to stand out from the rest	8
How to structure the design competition to get the best for Western Sydney	10
Case studies that provide a roadmap for NSW to follow	12
Flinders St Station, Melbourne	12
Royal Adelaide Hospital Site, South Australia	14
Second Airport Passenger Terminal Incheon Seoul, South Korea	16

Why Western Sydney needs its own airport

Every year, more and more people choose to call Western Sydney home. Western Sydney currently has a population of over two million people, making it roughly the same size as Brisbane. By the mid-2030s, this will grow to three million people, and Western Sydney will be home to one in every two Sydneysiders.

As the population of Western Sydney continues to grow, we need to make sure that we're also growing the number of jobs available to people who live in the local area. To properly cater for population growth, Western Sydney is expected to need an additional 384,000 new jobs by 2036.

A Western Sydney airport at Badgerys Creek will be a huge contributor to providing these jobs for Western Sydney residents, delivering approximately 35,000 direct and indirect jobs by 2035, almost one tenth of what will be required.

The huge number of jobs created by a Western Sydney airport is one of the main reasons why recent polls have shown overwhelming support for a new airport at Badgerys Creek. Western Sydney residents have spoken. They want an airport and they want the jobs that will come with it.

Creating new jobs in the West will provide more opportunities for Western Sydney residents to work closer to home and spend less time commuting. By 2035, it is expected that the direct employment created by the airport will mean that 17,000 Western Sydney residents will then be able to access employment opportunities closer to home. By 2060, the number of residents working closer to home is expected to increase to approximately 30,000.

As a result, local residents will collectively save nearly four million hours of commuter travel time.

A Western Sydney airport at Badgerys Creek will tap into a new market of aviation users as Western Sydney residents are given easier access to flights. Government studies have forecast that local demand alone will generate some 3.4 million aviation trips per year by 2035. It is perhaps more useful, therefore, to consider an airport at Badgerys Creek not as 'Sydney's second airport,' but rather as 'Western Sydney's first airport.'

While promising projections abound, forecasts are not the same as guarantees. Whether or not the Western Sydney Airport lives up to its promise will be heavily determined by how well the project is designed and the extent to which it integrates with the rest of Western Sydney. A great design can make the difference between a couple of runways and a shed surrounded by empty farmland, or a bustling tourism hub with strong connections to Western Sydney businesses.

That is why the McKell Institute is calling for a major architectural competition to help give the West the best possible airport design for Badgerys Creek.

A competition will draw from architects within Australia and around the world, while also giving people a chance to vote for their favourite airport design. Similar competitions around the world have generated additional tourism by boosting the profile of their region. Western Sydney residents deserve to be proud of their airport. This proposal outlines how to get there.

The proposal for a Western Sydney Airport architectural competition

Badgerys Creek was first identified as a potential airport site in 1969. In the 45 years since, governments have repeatedly promised to deliver the airport only to pull out in the face of local opposition.

Today, community sentiment appears to have shifted dramatically with two recent polls putting support for the airport at between 65 and 73 percent. The airport now has bipartisan support at both the state and federal government level, and the recent federal budget included \$3.5 billion for developing infrastructure around Badgerys Creek and the broader Western Sydney region.

The airport also has broad support from the Sydney Business Chamber, Western Sydney Community Forum, NSW Business Chamber, UnionsNSW, Australian Workers' Union, Construction, Forestry, Mining and Energy Union, Group Training Association of NSW and ACT, Regional Development Australia Sydney, Consult Australia, Royal Aeronautical Society, and the Liverpool, Narellan and Campbelltown Chambers of Commerce.

Despite this apparent broad base of support, The McKell Institute realises that similar levels of support have been achieved before.

In 1992 the Federal Government celebrated the commencement of "Stage One" of construction at Badgerys Creek with a turning of the sod attended by the then Minister for Transport, with \$72 million set aside for immediate development of the airport as well as improved road access to the new site. Further progress was stalled however following significant criticism over the handling of construction for a third runway at Kingsford Smith Airport (KSA). In an attempt to avoid the controversies associated

with KSA's third runway, development of Badgerys Creek Airport was put on hold while a comprehensive draft EIS was conducted. Several years later, the EIS was released with strong support for development at the Badgerys Creek airport. Despite this, the federal government abandoned support amid concerns that the NSW State Government would refuse to supply roads, rail, water and sewerage to the project.

More than two decades after the turning of the sod, Badgerys Creek remains entirely undeveloped.

Whilst the McKell Institute welcomes the funding set aside for the development of the Badgerys Creek airport, it also argues that maintaining community support for the project will be critical to ensuring that the airport finally gets delivered.

This proposal highlights how enthusiasm can be generated for the Badgerys Creek airport by creating an open architectural competition. Such a competition would develop the visual imagery of the airport. It would also allow local residents and the broader Australian community to engage with the process of designing and building a prominent airport. Architectural competitions have created some of Australia's best-known icons and have been paramount in making Sydney a world-class city.

By holding an architectural competition for the development of Badgerys Creek, policy makers can help ensure that we deliver a project which continues to enjoy broad community support.

How an airport would benefit Western Sydney

“The rapid expansion of airport-linked commercial facilities is making today’s air gateways anchors of 21st century metropolitan development where distant travellers and locals can conduct business, exchange knowledge, shop, eat, sleep, and be entertained without going more than 15 minutes from the airport. This functional and spatial evolution is transforming many city airports into airport cities.”

Prof. John Kasarda

Western Sydney will be strongly rewarded for hosting a major airport.

Deloitte Access Economics estimates that the Badgerys Creek airport will boost Western Sydney’s economy by between \$9.2 billion and \$15.6 billion between 2020-2050. In addition, a Western Sydney airport at Badgerys Creek could see almost 20,000 Full Time Equivalent (FTE) jobs created across Western Sydney over the same period of time.

Not going ahead with a second Sydney airport would badly impact the entire Sydney region. The Department of Infrastructure and Regional Development has estimated that not constructing a second Sydney airport would result in a cumulative \$60 billion of foregone expenditure, while the Joint Study on Aviation Capacity in the Sydney Region calculated that a failure to deliver an additional airport would cost the economy some \$6 billion by 2035 and \$34 billion by 20602.

The economic costs of not pursuing a second Sydney airport is driven by the fact that Sydney’s existing airport is already nearing capacity. Kingsford Smith is one of the smallest major capital city airports in the developed world. It has no way to expand and there is no existing

alternative. As demand continues to grow, airlines will increasingly be unable to schedule new services at their preferred times. By 2020, the Joint Study calculated that all slots on weekdays between 6.00am and 12.00pm and between 4.00pm and 7.00pm would be fully allocated. By 2027, there will effectively be no slots unallocated, with unmet demand reaching more than 100 flights per day.

Sydney will be forced to turn tourists away because its airport is unable to meet demand.

Building a second Sydney airport is an economic necessity. Building it in Western Sydney will deliver new jobs and tourism to a region that would benefit substantially from the economic activity generated by an airport. Building it at Badgerys Creek will help put Western Sydney on the map for thousands of visitors every single day.



Architectural competitions help to bring the community along with us

Public support for a Western Sydney airport is growing as people consider the economic opportunities that will flow from the project.

Whilst recent polls have put support for the project at between 65% and 73%, it remains difficult to gauge the overall depth and strength of that support. Public support for projects can quickly evaporate if the community feels that it has been ignored or if decisions have been made that fail to properly take their interests into account.

To ensure that support for a Western Sydney airport remains strong, proponents of the new airport need to take the community with them.

One common way of creating public enthusiasm for a major new project is to engage the community through the use of architectural design competitions. In the case of the Badgerys Creek airport, an architectural design competition would provide a visual point of reference from which Western Sydney residents can see, and more importantly vote on, the final design of the project. The images created by an architectural design competition would showcase the vision of a thriving Western Sydney whilst also creating a powerful statement that Western Sydney's time has arrived.

Architectural design competitions created some of Australia's best-known icons. Sydney's Harbour Bridge and Opera House were both designed by architectural competitions along with Canberra City and Parliament House.

Architectural competitions have been used for other Australian icons such as the National Gallery of Australia, the High Court, Federation Square and Australian War Memorial.

International design competitions are no less significant. Many of the world's most famous icons have been developed through open competitive processes. The Acropolis in Athens was one of the first competitions in 463 BC. London's Palace of Westminster (UK's Parliament house) was designed in 1840 by competition and in the US; New York's Grand Central Station, Central Park and Chicago's Tribune tower were all designed through the process of competitions.

Architectural competitions are of course not applicable in all situations. The Royal Australian Institute of Architects has suggested that architectural design competitions remain appropriate when the project:

- ✔ is of public significance
- ✔ will benefit from a wide degree of design investigation
- ✔ is to be located on a significant or unusual site
- ✔ will benefit from the public interest that a competition can generate
- ✔ or where design excellence is a high priority.

A Western Sydney airport would covers most, if not all, of the above criteria.

On those grounds, the McKell Institute is calling on the NSW Government to deliver an architectural competition for the design of the Badgerys Creek airport and its supporting community infrastructure.

Western Sydney's airport needs to

For many tourists, their arrival at an airport will provide their first glimpse of into the culture and businesses can influence the shared experiences of travellers, which in turn can influence their

In designing a new airport, planners have the opportunity to provide more than just a transport aviation hub. A well designed airport will instantly connect travellers to the city in which it is based. Any architectural design competition must include guidelines that will encourage the design of an airport that is best-practice.



The head of architecture at award winning design firm HASSELL has outlined several features which can make an airport great:

Creating a sense of place by using contextually appropriate designs

Alice Springs Airport contains a public art precinct consisting of decorated pillar bases, bollards, canopies, awnings, a free standing sculpture, fence and signage. The art on display is an ode to the Central Australian artistic landscape and provides a positive statement about the culture of the region.

A Western Sydney airport might choose to promote a theme that celebrates its rich cultural diversity and multiculturalism, or perhaps it might promote the region's passionate sporting culture. An architectural design competition would give Western Sydney residents the opportunity to have a say in what they would like their airport to say about the place they call home.

Delivering an airport that facilitates easy access to areas of significance

Creating a positive travel experience to and from the airport is a significant determinant of whether or not visitors will choose to become frequent users of the airport. Airports that are logistically difficult for travellers to access will often fail to capture the maximum possible economic benefit.

A well designed Western Sydney airport would provide integrated access to local businesses, communities and attractions as well as easy access to other prominent Sydney highlights.

stand out from the rest

and people of a city. The design of an airport and its connection to local infrastructure can significantly impact the overall impression of a particular city or region.



- ### Supporting local enterprise by providing a variety of retail and food outlets

The existing site has a substantial amount of land (1700 hectares) allocated to the development of an airport at Badgerys Creek. That's almost double the total size of Sydney's Kingsford Smith Airport. The substantial amount of land provides a unique opportunity to develop an airport precinct that does more than just provide transport services, by becoming a hub for the whole community.

The design competition for the Western Sydney Airport should give entrants the flexibility to come up with creative ways to use this land to enhance the economic diversity of the airport. A well designed airport will provide a variety of retail and food outlets whilst also showcasing Australia's own businesses and enterprises.

- ### Maintaining community support through environmentally aware design

The controversy surrounding the construction of the third runway at Kingsford Smith provides a strong example as to why the design and construction of an airport must be undertaken with a view to minimising the impact of air traffic on residential areas as well as limiting the broader impact of construction works on local communities.

The ideal design competition would call for a design that is aesthetic, environmentally sustainable, and integrates well with the broader Western Sydney region.

How to structure the design competition to get the best for Western Sydney

A sponsor would be needed to open the tender and organise the architectural competition. The most likely sponsor in this case would be the government. The sponsor would be responsible for engaging a professional adviser, designing the competition program, and selecting a qualified jury to judge potential applicants.

The next step would be to choose the type of competition most appropriate to this specific project. The organisers would have the option of pursuing an invite only competitions, which would limit the entrants to only those firms specifically which asked to enter, or an open competition in which any domestic or international firm would be able to enter if it was interested in doing so.

The other consideration would be whether or not the sponsor would pursue a one-stage or two-stage process of elimination. The one-stage process would require that entrants immediately provide a single design model, after which all entries would be ranked by a panel in order of preference. The latter model would give entrants the opportunity to provide an initial design concept, from which a shortlist of finalists would be selected and given an opportunity to develop their concepts further before providing a more detailed architectural plan for consideration by the panel.

There are several advantages to holding a two-stage competition. Two stage processes tend to attract more entries by reducing the amount of work required in the original first-stage submission. Importantly, this could encourage smaller, home-grown architects to participate by reducing the time and cost associated with making the initial bid.

A two-stage process also provides an opportunity for the sponsors and jury to provide early feedback to applicants, allowing them to refine their designs in order to provide optimal alignment with the project's guidelines. This will help ensure that the final product delivers an airport design that captures the social and economic outcomes sought by policy makers and the broader community.

Critically, this proposal takes the view that an architectural design competition should be used to help build enduring community support for the Western Sydney airport. As such, this proposal strongly supports the use of a two stage process through which the panel is used to select a shortlist of finalists, the final designs of which would then be released to the community for feedback and ideally, a vote.

Opening up the final selection process to a public vote will strengthen community support whilst also raising awareness of the new airport for potential visitors to Sydney.



Case studies that provide a roadmap for NSW to follow

FLINDERS ST STATION, MELBOURNE



In November 2011, the Victorian Coalition Government launched a \$1 million international design competition to rejuvenate and restore Melbourne's iconic Flinders Street Station. The Flinders Street Station Design Competition sought the best ideas from around the world to re-energise the station and its surrounds, whilst maintaining the landmark's beloved heritage features.

A two-stage process was chosen in which the community was given the chance to vote on a short-list of six finalists chosen by a government appointed panel. The heavily promoted competition was successful in generating a strong level of community engagement, which helped drive public enthusiasm for the project whilst also generating surprisingly large amounts of international interest in the landmark's redevelopment.

The aim of the People's Choice Award was to provide the public with an opportunity to give feedback on the six shortlisted designs. The voting system was

intended to respect both the voters and the designs by giving people the chance to understand the thinking behind each of the design concepts.

That the Flinders Street Station Architectural Design Competition was able to generate broad interest from residents in different countries around the world indicates that there is strong potential to enhance Western Sydney's tourism profile by designing and promoting a similar design competition for Badgers Creek. This will increase the international profile of the airport whilst also building community support from local residents living in Western Sydney.



The McKell Institute notes that the well-publicised redevelopment of Flinders Street Station was regrettably postponed in the 2014/15 Victorian budget despite large levels of community support. Given the bipartisan support for a second Sydney airport at Badgerys Creek, along with the substantial funding already put in place for infrastructure projects around the airport, the McKell Institute remains optimistic that the proposed Western

Sydney airport will not face a similar fate as the largely aesthetic modifications touted for the Flinders Street Railway Station.

The McKell Institute strongly believes that the community engagement strategy pursued by the Victorian Government during the Flinders Street redesign competition represents an ideal model for replication by the NSW Government and the partnering sponsor.

ROYAL ADELAIDE HOSPITAL SITE, SOUTH AUSTRALIA



Once the new Royal Adelaide Hospital opens in 2016, the existing Royal Adelaide Hospital will become vacant. This presented the South Australian Government with a unique opportunity to create a new role for the high profile site by transforming the facility in a way respect and builds upon its significant cultural history whilst enhancing the economic and social profile of the region.

As part of a broader vision for the Greater Riverbank Precinct, the South Australian Government developed an engagement process to consider how the Royal Adelaide Hospital site could be used to support a new precinct that would connect and compliment adjacent Universities, the North Terrace cultural precinct, the Botanic Gardens, and the Park Lands. The process also considered how the project would integrate with a growing residential population close to the site, and how the project would integrate and underpin the broader economic activity of the city.

Despite having a smaller prize pool than the Flinders Street Station redesign competition, the Royal Adelaide Hospital redevelopment competition still received 126 design entries from architects in 48 countries. The competition followed a similar two-stage process with six finalists shortlisted before opening up to an online voting process which enabled the public to view and vote on their favourite design.

The public engagement saw over 25,000 website visits from 99 countries and received some 4,300 votes as part of the People's Choice Award.



SECOND AIRPORT PASSENGER TERMINAL INCHEON SEOUL, SOUTH KOREA



SOUTH KOREA



Architectural design competitions have also been used to deliver high-quality airport in other prominent global cities. Terminal 2 at the Incheon Airport in South Korea is one example of how an architectural design competition is helping to secure a highly innovative design for the largest airport in South Korea.

Architecture and planning firm Gensler won the right to deliver the final design in collaboration with the Heerim-Mooyoung-Gensler-Yungdo (HMGY) Consortium. The new departure halls of Incheon's Terminal 2, designed by Gensler in collaboration with the Heerim-Mooyoung-Gensler-Yungdo (HMGY) Consortium, will serve as final destinations unto themselves, with premier retail outlets peppering the departure concourses. Gensler principal summed up his view that a great airport design understands that "the airport city is not just an aviation infrastructure serving the community. It's not just providing retail and commercial opportunities for passengers, but ties local commercial interests to the airport."

Gensler and HMGY Consortium have designed an airport with extraordinary efficiency coupled with design rooted in Korean culture. The building form was inspired by an Asian Phoenix. To give travelers an immediate sense of place, the choice of materials in the terminal, including the signage and graphics, draws on textures and colors that evoke Korean culture and traditions. The new terminal will offer an array of attractions that also make it a compelling destination in its own right.

The terminal will be opened just in time for the just in time for the 2018 Winter Olympic Games in PyeongChang, and is being marketed as a gateway into Korea.

Conclusion

The case studies above make a compelling case for an architectural design competition at Badgerys Creek.

Western Sydney deserves to have a well-designed airport that integrates with the local community and which positively showcases the diverse culture and identities of the Western Sydney region.

What Western Sydney does not need is its own Avalon airport. Western Sydney's airport should not repeat the design mistakes of Melbourne's second airport, which is frequently derided and currently faces a serious crisis as Jetstar weighs up cancelling its services amid consistent underperformance.

The troubles facing Avalon airport are contributed to by the fact the airport itself represents little more than a converted paddock with large tin sheds and temporary stands for business counters. The airport is also poorly serviced by public transport infrastructure and a lack of nearby hotel accommodation.

Western Sydney can do much better. The Badgerys Creek airport has the potential to deliver a large boost in jobs and economic growth right across Western Sydney, but only if designed well. An architectural design competition is the best way to ensure that goal is achieved.







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