

## Future shape of our cities and infrastructure challenges beyond 2010

For Australia to accommodate a projected population of 35 million by 2050 and sustain a 60% increase in residents and workers, the planning of Australian cities must be reassessed. At the final event in CEDA's *InfraStructuring Australia* Series, Michael Deegan, Infrastructure Coordinator, Infrastructure Australia and a distinguished panel of industry experts discussed the future shape of Australian cities and the need for infrastructure reforms to accommodate population growth.

The overwhelming consensus was that Australia will need to pull every lever – new funding mechanisms, new technology, new delivery mechanisms – to get anywhere near reaching its future infrastructure targets.

Putting the scale of the problem in context, Professor Peter Newman, Curtin Sustainability Policy Institute and Board Member, Infrastructure Australia, reported that national population growth projections predict our major cities will go from 13m to nearly 24m by 2056.

"We're looking at nearly eight million in Sydney and Melbourne, nearly six million people in Brisbane and Perth getting to the size of Sydney."

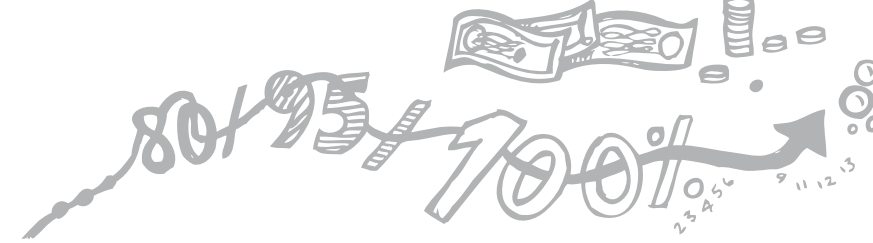
Alan Tesch, Associate Director-General, Department of Transport and Main Roads (QLD) said the future shape of our cities will be: "... the most critical determinant of the future quality of life for all Australians; our lifestyle, our social, our economic, our

environmental well-being and the long-term sustainability of this country."

David Rolls, CEO, Lend Lease Development agreed, pointing out the findings of the *State of Australian Cities in 2010* report, which predicted a future gridlock for national transport networks, soaring transport, energy and water costs, increased car dependency and declining air quality, as well as poorer health outcomes if the status doesn't change.

"Obviously, the challenge is to try and turn all that around in an environment where many current planning policies reflect the need to increase residential densities in inner urban areas."

Moreover, delegates agreed that Australia is starting with an infrastructure deficit. As Professor Newman put it: "We've actually got to catch up. There's been a decade where we just did not invest enough in infrastructure."



He also raised the issue of the new challenges arising from climate change.

“Most studies indicate that climate change will reduce asset life expectancy by 15%. Then we have over 200,000 properties in New South Wales alone subject to sea level rise. And then we’ve got the whole mitigation processes to decarbonise urban development.”

### Working as one nation

Despite the significant difficulties ahead, Australia is beginning to rise to the challenge. Delegates heard about the progress Infrastructure Australia has made to move infrastructure planning towards a one nation response. However, it was acknowledged that, while the current and the previous governments have undertaken significant work in this area, there is still a lot to be done.

The consensus was, the sooner we work as one nation with one set of rules in transport, energy and water, the sooner we’ll move forward.

For example John Shirbin, Partner, Clayton Utz noted that: “Integrated planning between transport agencies is critical to restoring infrastructure congestion in our major cities.”

However, this is just the start. Delegates heard that several other paradigm changes will be required to drive appropriate infrastructure development.

### Changing the discussion between the public and private sectors

First, we need to look at funding through a different lens, so the private sector is the default position. Delegates felt that this would require a lot more transparency in funding

decisions, and a far more collaborative model, with multi-lateral industry involvement, rather than competing or bilateral arrangements between the Commonwealth and the State. David Rolls said: “These projects are very complex, they’re very political, they’re very emotive – so it needs a partnering approach with all of the different stakeholders to get them to work.”

Professor Newman said that PPPs should be done with equity funding and that land development would be locked in from the start, with the consortiums that are going to build and provide their service. “Land development must be part of that process – locked in from the beginning.”

### Revitalising public transport

Delegates heard that a collaborative model might also help to encourage better public transport utilisation, with the Commonwealth, States and the private sector working in partnership. Clearly, Australia must find an alternative to having cars transporting one person clogging the roads between half past seven and half past nine each day.

According to Professor Newman, the writing is on the wall: “A different world is emerging. For the first time in history, we’re seeing declining car use in American cities – not just because of rising fuel prices, but due to structural change. Young people are moving back into the cities and no longer want to be car dependent.”

“This is starting to happen in Australia as well, with car use patterns also going down and Perth achieving 14% growth last year in public transport. Sydney has yet to follow this trend, but I think it will turn the corner soon.”

### Developing a new city model

Professor Newman believes the future lies in polycentric cities: “... with a series of city centres built in the suburbs. Settlement patterns and infrastructure are highly linked – we must decentralise settlement patterns and build regional centres to support localised economic activity”

Peter Seamer, CEO, Growth Areas Authority (VIC) agreed: “We no longer need to create shopping centres; we need to create town centres where you have a full range of facilities, so people don’t feel they have to get in the car and drive 20 kilometres to have a glass of wine on a Friday night.”

“We have to make suburbs differently to what we’ve done in the past. We don’t want to be building dormitory suburbs; we want integrated communities where people have all the different things they need. This is a planning specification as well as an infrastructure issue.”

Delegates heard that the middle suburbs are where we should be directing urban development. “These are the places that need infrastructure,” said Professor Newman.

“They don’t have water sensitive design or underground power. They don’t have very good public transport. These will be the areas where we’ll see green infrastructure developing: small scale energy, water, waste systems. In Victoria, economic analysis shows that, if you use green infrastructure, you will save \$500m at present value over 20 years.”

However, he cautioned that this would require a different governance mechanism that will: “...bring a whole precinct together and redevelop it with the community, local government and developers. Because normally, when you do the infill, you don’t get the infrastructure; you just get more pressure on the infrastructure.”

“ The only way that master planning can be effective is through collaboration and open relationships among the members of the supply chain.”

**Peter Bailey**, Chief Executive Officer, Foundation for Regional Development (NSW)

David Rolls agreed: “Inner city urban re-infill projects such as Barangaroo and Victoria Harbour in Melbourne represent new opportunities to create larger scale, affordable energy generation and water supply mechanisms. But the problem is we need new governance structures to make that happen. It’s not only the intent of what you want to do physically, it’s also the over-arching governance that needs to be addressed.”

### **Redeveloping rather than building on the fringe**

Delegates felt that enormous savings could be made by building on existing infrastructure in areas where the population is now declining.

“You save around \$85,000 per block in infrastructure costs if you redevelop, compared to building on the fringe, and you also save \$250,000 per household over a 50 year period. If we put \$10m into redeveloped areas rather than on the urban fringe, we would actually save \$340b in infrastructure costs up front,” said Professor Newman.

### **Using smart and sustainable technologies**

Delegates were encouraged by the potential for smart technologies to support all aspects of infrastructure, including intelligent transport systems that reduce travel times and improve flow rates.

They heard about two projects already on the agenda: a National Electricity Grid for linking renewable energy to cities including a Vehicle to Grid process to support electric vehicles; and a National Gas Grid, which can enable freight and industry to run on gas rather than on diesel and, eventually, create natural gas renewably.

David Rolls was one of many delegates highlighting the importance of the National Broadband Network in supporting such projects. “It will help us to deal with sustainability in a big way. Putting in smart energy metering is very important, because if you actually know what you’re using, you’re going to try and get that demand cycle down.”

### **Focussing on regional development**

Delegates heard that, while cities are bursting, regional Australia has a population deficit, with strong potential for relocation grants to move people out of cities.

“Tamworth Primary Schools could take another 1,000 children without building a new building. Armidale could take another 500. Armidale has a water supply that’s designed for 75,000 people, with a population of 25,000,” said Peter Bailey, Chief Executive Officer, Foundation for Regional Development (NSW).

“Regional New South Wales has stable workforces, industrial land from \$20 a square metre and five minute commute times.”

He cited the successful Victorian campaign ‘Make it Happen in Provincial Victoria’. “In seven years, they have turned regional Victoria from losing population to growing population. Now, they’re in a situation where a lot of their centres are growing faster than Melbourne.”

However, Alan Tesch cautioned: “Regional growth only occurs when you have the employment opportunities at the outset. It doesn’t happen the other way around. Without employment as a fundamental driver the nexus won’t be broken.”



“ We need to look at ways to encourage the private sector to look at regional centres such as Wollongong, Newcastle, Ballarat and others as a thriving opportunity for workers to have employment closer to home.”

**Catherine Caruana-McManus**, Public Sector Executive, IBM Australia

“That said, I do think we need to look at different solutions - like regional hubs - rather than the built solution. This is the only way we’re going to provide for sustainability and liveability for future Australians.”

According to Catherine Caruana-McManus, Public Sector Executive, IBM Australia: regional centres are important. “We need to look at ways to encourage the private sector to look at regional centres such as Wollongong, Newcastle, Ballarat and others as a thriving opportunity for workers to have employment closer to home.”

Peter Bailey expanded on her point: “With technology now, you don’t need to be in the big city. Today, executives can have video phones on their desk where they can communicate and talk to people across the phone line. The problem of distance is no longer significant.

### **Capturing the revenues generated by infrastructure**

Delegates discussed how to capture an appropriate share of the revenues that new infrastructure generates. Owen Hayford from Clayton Utz asked if there are smarter and more innovative ways than using develop levies or property taxes.

David Rolls cited the American TIF (Tax Increment Financing) system: “If you propose a major piece of infrastructure with an economic benefit, you can actually tap into that. The Government will fund you the amount you need as a result of what you can prove would be generated as a result.”

“The problem we’ve got here is the three-tiered system means it’s hard to make one decision. But, if we could get that sort of system going, it will feed off itself.”

He also raised the issue of deferred infrastructure investment: “If you’re the first mover, you’re providing the bulk of infrastructure for a whole bunch of people that will follow. The system doesn’t handle that at the moment.”

### **Taking the Australian people on the journey**

Finally, delegates acknowledged that the infrastructure discussion must include public trust, which is the single biggest impediment to infrastructure development in the United States. While agreeing that a number of Australian cities have developed public trust through strong and continuous communication to and from their electorates, there is more work to be done in collaborating with the community.

As one speaker put it: “This might seem a soft issue for an infrastructure discussion, but this emphasis on community is something we must all take on as part of the challenge.”



## Ernst & Young contacts

### Bill Banks

Oceania Infrastructure Leader  
Tel: +61 2 9248 4522  
bill.banks@au.ey.com

### David Larocca

Partner, Project Finance Advisory  
Tel: +61 2 9248 4245  
david.larocca@au.ey.com

### Neal Johnston

Partner, Project Finance Advisory  
Tel: +61 2 9248 4274  
neal.johnston@au.ey.com

## Clayton Utz contacts

### John Shirbin

Partner, Construction and Major Projects  
Tel: +61 2 9353 4117  
jshirbin@claytonutz.com

### Owen Hayford

Partner, Construction and Major Projects  
Tel: +61 2 9353 4604  
ohayford@claytonutz.com

### Doug Jones

Head of Construction and Major Projects  
Tel: +61 2 9353 4120  
djones@claytonutz.com

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SCORE Retrieval File No. AU00000843

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