



# GREEN PEOPLE ARE FROM MARS, ENGINEERS ARE FROM VENUS

How can they co-create the earth?





is a national initiative that brings together state and local government, universities, business and industry to make our urban areas greener.

We're on a mission to make sure our green spaces grow as our urban places grow and, in doing so, make Australia's cities the greenest in the world.

The program first launched under the name 202020 Vision in 2013 and is evolving in order to keep meeting the needs of our network, through 2020 and beyond.

For more information please visit [greenerspacesbetterplaces.com.au/faqs](http://greenerspacesbetterplaces.com.au/faqs)



Greener Spaces Better Places is funded by Hort Innovation using the nursery marketing levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit [horticulture.com.au](http://horticulture.com.au)





# WHAT IS THE 202020 VISION?

In its fifth year, the 202020 Vision is a collaborative national initiative of over 400 industry professionals, councils, state and federal government bodies, businesses, not-for-profits and academic sectors, all working together to increase and improve urban green space by 20% by 2020. The 202020 Vision is funded through Hort Innovation using a levy paid by the nursery industry.







# WHAT'S TO DISCUSS?

Green space. It's a wonderful thing.

So too is electricity and running water.

And when they collide – as they do in urban areas – it's easier and cheaper to remove a tree than to re-engineer a road, or move the local power supply.

But is that the right thing to do?

Sure, it's hard to argue that a tree should take priority over essential services, when those services play a sometimes life-saving role in delivering electricity, water and phone lines to our homes, businesses and hospitals.

But when trees continually lose out, our cities become bare, hot and uninspiring places – at which point we start to realise that they provide essential services too.

Changing the conversation means building a bridge between the champions of these two urban necessities.

In one corner, green space practitioners – planners, landscapers, architects, arborists and the like.

In the other, engineers.

To find out what makes these seemingly disconnected disciplines tick, we spoke to them.

The good news? Both camps presented us with the same problem: a lack of collaboration created by clashing cultures, siloed education and inflexible tender processes.

We asked them to explain.

**WE SPOKE TO**



**2000<sup>+</sup>**

*green space practitioners  
and engineers*





# WHO DID WE SPEAK TO?

First thing's first, we reached out to our network of over 2,000 green space professionals from local government, businesses and academia.

We then sought out a group of expert engineers to give us a different perspective, we spoke to:



**James Rosenwax**  
Executive Director at  
AECOM Cities

James was a landscape architect, environmental manager and partner for 11 years at PSB, before he joined AECOM in July 2006. His background in design, planning and business leadership gives him a unique point of view when providing strategic advice and direction on complex city shaping infrastructure programmes. He is passionate about making cities better places in which to live, do business and coexist.



**David Hood AM**  
Dalmau Consulting  
(2012 National  
President EA)

David is interested in how human activities are damaging the planet and uses his engineering background to consult on sustainability, CSR and energy efficiency. He is also the founder of the Long Future Foundation and one of the founders of the Infrastructure Sustainability Council of Australia and the Australian Sustainable Built Environment Council.



**Mellissa Bradley**  
Water Engineer at  
Water Sensitive SA

Mellissa is a strong advocate for the creation of more liveable cities and towns by incorporating integrated water management objectives and best practice water sensitive urban design in urban growth and infill developments. Her main role at the moment is supporting the transition of Greater Adelaide to becoming a water sensitive city.



**Rob Mason**  
Associate Director at  
AECOM

Rob has worked as an engineer in Ho Chi Minh City, London and Sydney. He is currently leading the AECOM Green Square development, which has been recognised as a stand out interdisciplinary collaboration.



**Dr Jennifer Mullaney**  
Environmental  
Scientist at Covey  
Associates

Jennifer has a PhD in Civil Engineering from the University of the Sunshine Coast and her thesis shows the value of using permeable pavements to promote the healthy growth of street trees. She was previously working in geography and urban water management research in Dundee, Scotland.



**Fiona Coe**  
Senior Engineer and  
Project Manager at  
Cardno

Fiona brings a diverse portfolio to engineering, having studied civil and environmental engineering along with international studies. She speaks both German and Japanese and has also gone on to receive a graduate diploma of psychology. She is currently working on and managing projects related to water and the environment at Cardno.



# CLASH OF CULTURES

## **The number one barrier to successful collaboration is culture.**

This includes framing each other's priorities as mutually exclusive, labeling the other group as inflexible thinkers, neglecting to place value in other professions and an underlying uneasy tension that each would be duped by the 'other'.

Individuals from both disciplines expressed these ideas, in some cases without ever having worked in cross-disciplinary teams.

In engineering, the counterproductive culture was seen to be one of 'this is how we have always done it', underpinned by regulations that are gospel.

According to David Hood, past President of Engineers Australia and Consultant at Dalmau Consulting, "It's too easy these days for engineers to produce a standard design just by pumping it into a computer and getting a cheap (and regulated), engineered design".

Or, in the words of a survey participant who wished to remain anonymous, "Engineers are stuck in their ways, there is no room for collaboration or compromise."

In comparison, the culture in green space professions was discussed in terms of prolonged frustration of feeling misunderstood and ignored.

Both camps – including engineers interested in green space - raised the concern that collaboration is held back by green space practitioners being left out of meetings until the 11th hour. Green space has become a 'nice to have' last addition.

Timing also impacts where funds are allocated in a project. When green space is a bolt-on, it's rarely given the investment it needs to truly stand out. This leads to its own problems.

"Being cheap with landscapes undermines the success that they can have. The damage that 'bad' projects do to the reputation of green space, which I have seen time and time again, is really damaging," says Mellissa Bradley, a Water Engineer at Water Sensitive SA.

Even an organisation that is actively trying to foster more collaboration in their very diverse company, such as AECOM, commented that at the end of the day people return to their silos.

"On a Friday afternoon, engineers go to one bar, landscape architects go to another and planners go to another," says James Rosenwax, Executive Director of AECOM Cities.



**"IT'S TOO EASY THESE DAYS FOR ENGINEERS TO PRODUCE A STANDARD DESIGN JUST BY PUMPING IT INTO A COMPUTER AND GETTING A CHEAP (AND REGULATED) ENGINEERED DESIGN."**

*David Hood, past President of Engineers Australia and Consultant at Dalmau Consulting*

**"BEING CHEAP WITH LANDSCAPES UNDERMINES THE SUCCESS THAT THEY CAN HAVE. THE DAMAGE THAT 'BAD' PROJECTS DO TO THE REPUTATION OF GREEN SPACE, WHICH I HAVE SEEN TIME AND TIME AGAIN, IS REALLY DAMAGING."**

*Mellissa Bradley, Water Engineer at Water Sensitive SA*

**"ON A FRIDAY AFTERNOON, ENGINEERS GO TO ONE BAR, LANDSCAPE ARCHITECTS GO TO ANOTHER AND PLANNERS GO TO ANOTHER."**

*James Rosenwax, Executive Director of AECOM Cities*





## SILOED EDUCATION

The second thing we found is that a lack of education and understanding of the social and economic benefits of green space inhibits collaboration.

For people to genuinely want to collaborate, they need to understand why it is valuable to do so.

**“CLIENTS SEE EVERYTHING IN MONEY. TREES TAKE UP SPACE AND THEREFORE ARE TAKING UP MONEY. THIS IS ALL BECAUSE DECISION MAKERS DON'T UNDERSTAND WHAT IS IN IT FOR THEM,”**

says Dr Jennifer Mullaney, Environmental Scientist at Covey Associates.

In short, better education is vital, so that decision makers understand the competitive advantage of increased liveability and general amenity that, in turn, increase property value.

### WANT TWO GOOD PLACES TO START?

Try the [CAUL Hub's Benefits of Urban Greening report](#) and [AECOM's Green Infrastructure: A Vital Step to Brilliant Australian Cities report](#).



## INFLEXIBLE TENDER PROCESSES

The third big challenge is tendering, which is designed in a way that keeps disciplines siloed. Rarely does a request for quote (RFQ) require the two to talk.

In discussing the success of their Green Square development for City of Sydney, Rob Mason, Associate Director at AECOM, shed some light on how this might be better approached.

**“WE OFFERED THE CITY OF SYDNEY A 50/50 BALANCE OF ENGINEERING AND GREEN SPACE PRACTITIONERS WORKING ALONGSIDE EACH OTHER. IT WAS A COLLABORATION, NOT ONE LEADING THE OTHER.”**

As a result of this process, AECOM's team worked collaboratively from day one and the development of Australia's densest town centre is turning into an example of what all our urban spaces could – and should be.

Changing the tender process to a more holistic approach puts engineers and green space practitioners on the same team, meaning they no longer compete for space or funding.



### A HOLISTIC APPROACH

*puts engineers and green space practitioners on the same team, meaning they no longer compete for space or funding.*





# WHAT DO YOU THINK?

Cross-disciplinary collaboration is a complex and emotive area. But, done well, it saves time and money and produces a far better outcome for clients and the end user.

It requires all stakeholders to value each other's work and respect the knowledge each other possesses. And occasionally enjoy a good night out building trust and growing rapport.

In an ideal world, more truly collaborative projects would be raised up.

What's more, we only unpacked the dynamics between engineers and green space people.

Are there other disciplines that need to be involved?

Will whoever solves this question create a real competitive advantage by becoming Australia's leader in creating better functioning and greener spaces?

We look forward to reading your thoughts over on our [LinkedIn page](#).







[greenerspacesbetterplaces.com.au](http://greenerspacesbetterplaces.com.au)