



# Regional Update: Young Engineers Australia

Nicole Brown – Australian Representative

August 2020

# Engineers Australia (EA)

## Our Purpose

- To advance the science and practice of engineering for the benefit of the community.



## THE PROFESSION



### 1. Future ready

The engineering profession and EA will be positioned for the future of work



### 2. Impactful leadership

Trusted voice of the profession impacting public policy for benefit of the community

## THE MEMBERSHIP



### 3. Chartered aspired

Current and future engineering professionals will aspire to be Chartered



### 4. Membership valued

Membership of Engineers Australia is valued by the profession

## THE ORGANISATION



### 5. Easy to do business

Services are streamlined to deliver simply, efficiently and effectively



### 6. High performing

Volunteers and employees feel appreciated and valued

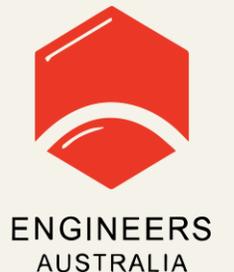


## 6 Strategic Shifts:

Our 3-year focus sets EA up to deliver on our strategic goals and our purpose across 3 areas of influence: the profession, the membership and the organisation.

# What is Young Engineers Australia (YEA)?

- YEA is currently the single largest sub-group within EA, with a membership base comprising of over 40,000 young engineers nationally.
- The group has now been established for over 25 years, with a local committee in each of EA's 9 divisions.
- A young engineer is considered to be any member of EA that is currently completing or has completed a tertiary (Uni or TAFE) engineering qualification, and is between the ages of 18 and 35.



# Young Engineers Australia

## Vision

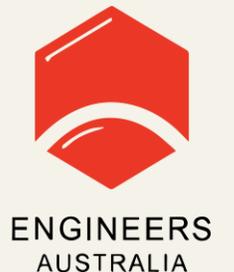
- To be an influential voice in our profession and the leader among young professional bodies.



# Young Engineers Australia

## Mission

- YEA exists to represent, support and provide a voice for the young engineering team. Through a culture of innovation, integrity, and the pursuit of excellence, YEA facilitates the professional and personal development of our membership. This establishes engineers as highly respected members of the community.



# YEA Chapters



# YEA Events 2020:

Examples of some of the broad range of events delivered:

- Large scale events:
  - EA Welcome to Graduates Reception
  - Registration of Engineers Event
- Social events:
  - YEA Engineers vs Trivia
  - Projects in the Pub
- Professional Development Presentations:
  - Welcome to Work
  - Navigating Ethics in the Engineering Industry
  - Outside of Engineering/Life Skills
  - Pro-bono Engineering
  - Leadership Negotiation Intelligence



# Example: YEA Victoria Case Competition

The (hypothetical) Challenge: upgrading the 142-year-old Queen Victoria Market

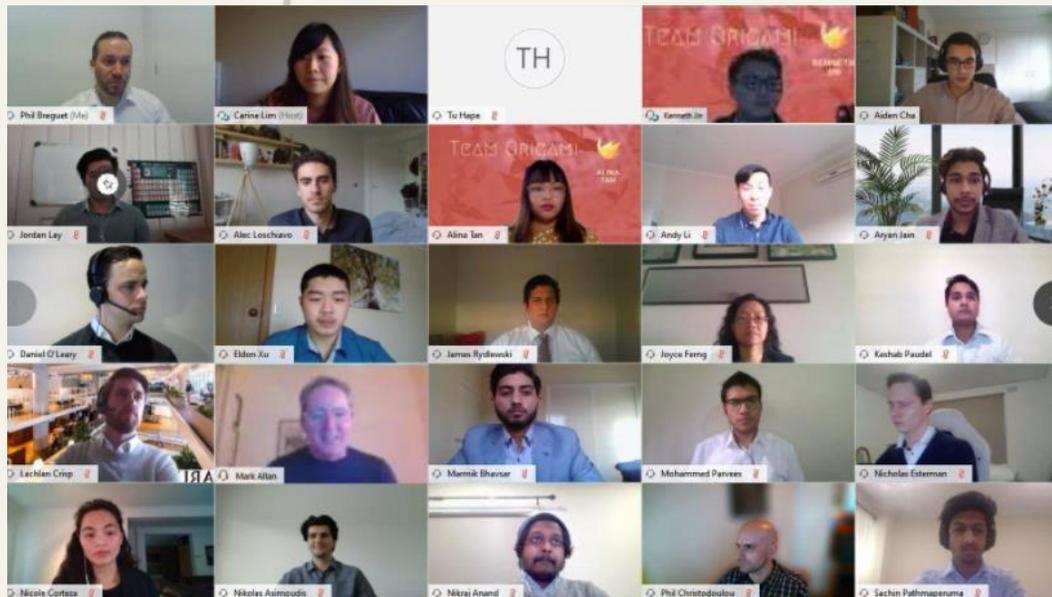
- Considerations:
  - Establish the 'market of all markets'
  - Maintain community meeting space
  - Create a quintessential Melbourne experience
  - Environmental efficiency (6 Green Star Rating in Australia)
  - Adhere to heritage guidelines



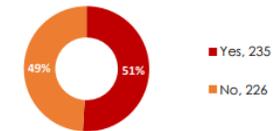
# Example: YEA Victoria Case Competition

## Statistics:

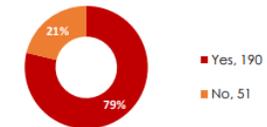
- 480 engineering students competing
- 127 teams
- 90 submissions (71% retention)
- 10 days
- Top 5 presented in a virtual “pitch style” event
- 1 team winner: \$1,000 and one great experience!



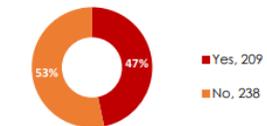
## ENGINEERS AUSTRALIA STUDENT MEMBER



## IF YOU SAID NO, WOULD YOU SIGN UP AS A MEMBER?



## INTERNATIONAL STUDENT?



## KEY FEEDBACK FROM PARTICIPANTS

Did you find the case study....?

Easy

7.70%

Moderately challenging

61.50%

Difficult

30.80%

Ideal months for case competition?

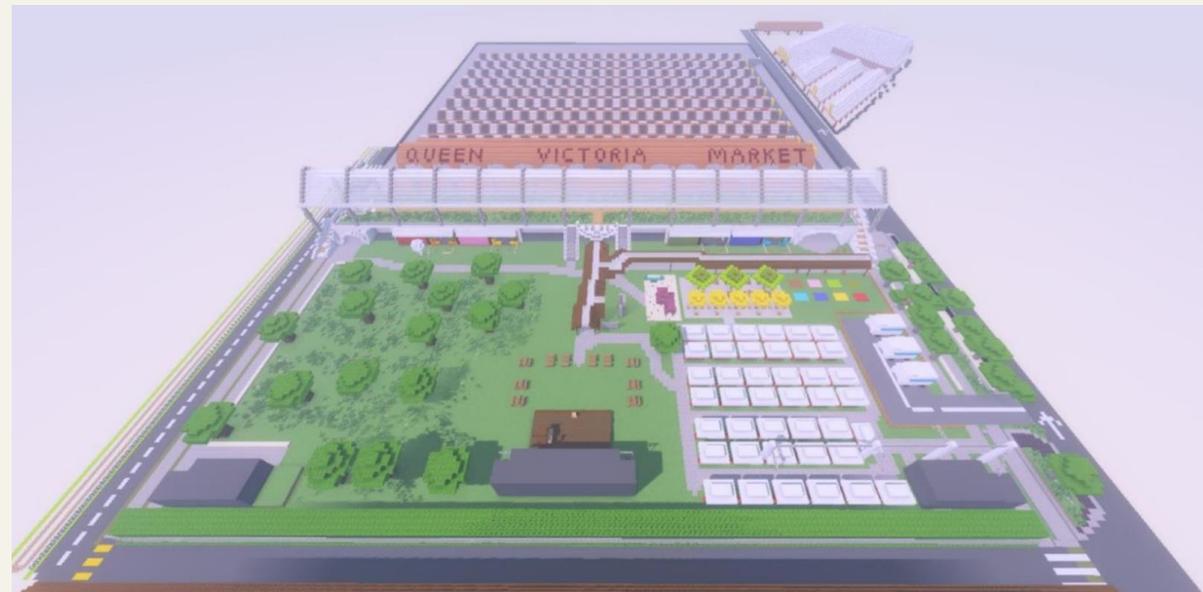
Jan,  
Feb,  
July,  
Aug

Would you recommend this case competition to others?

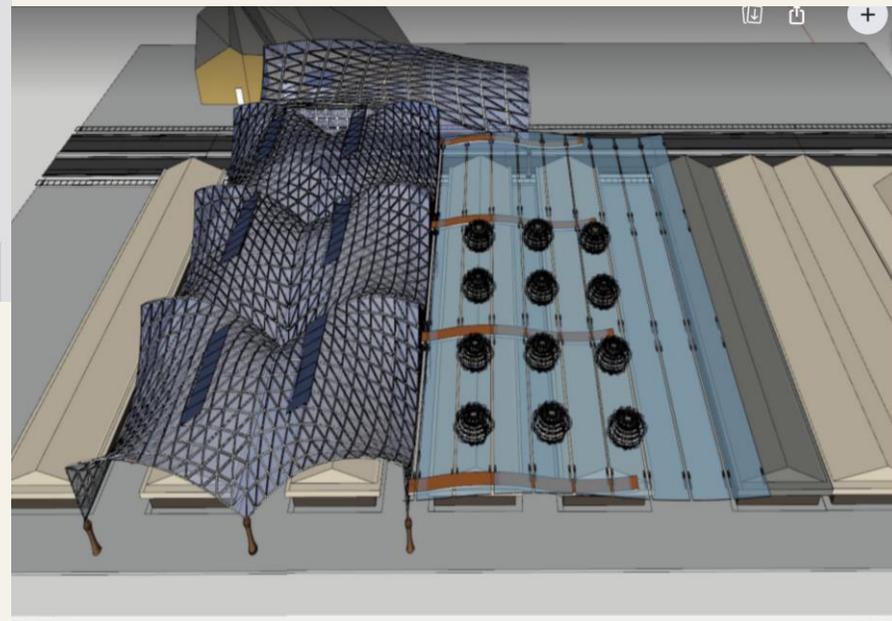
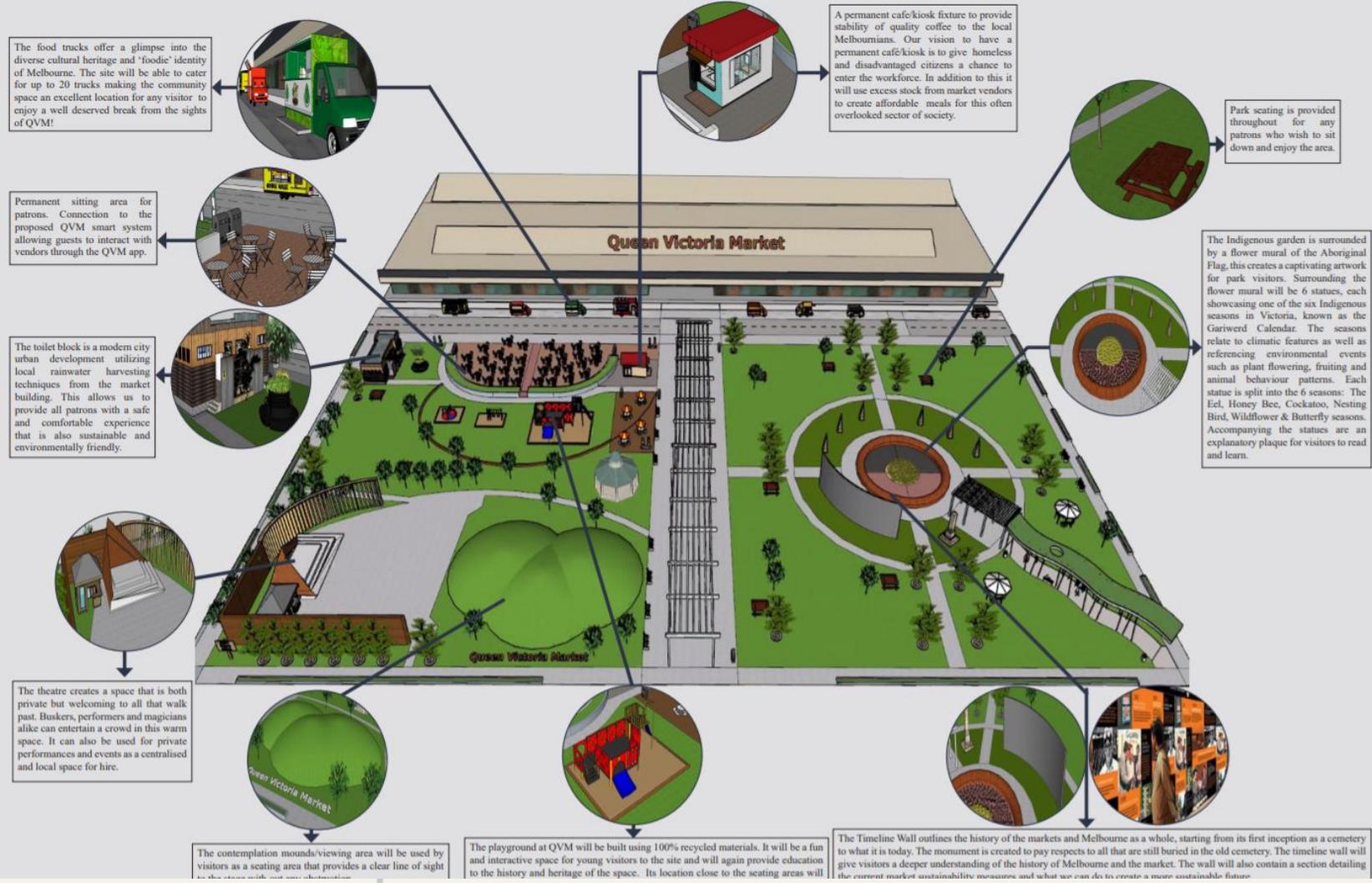
100.00%

What participants have said on LinkedIn...

*Thanks YEA-V for the opportunity to apply some of the knowledge I have gained during my studies. I genuinely look forward to participating in more activities like this. The collaboration has taught me how multi-disciplines could bring to the birth of creativity. We learned quite a bit about the submission of tenders, sustainable design and time management. We are really proud of our proposal - I look forward to participating in more extracurricular activities. Indeed a great learning experience and exposure to real-world challenges! I would like to thank YEA-V for putting together this case competition! It has also improved my understanding of Green Star for communities.*



# DESIGN SOLUTION

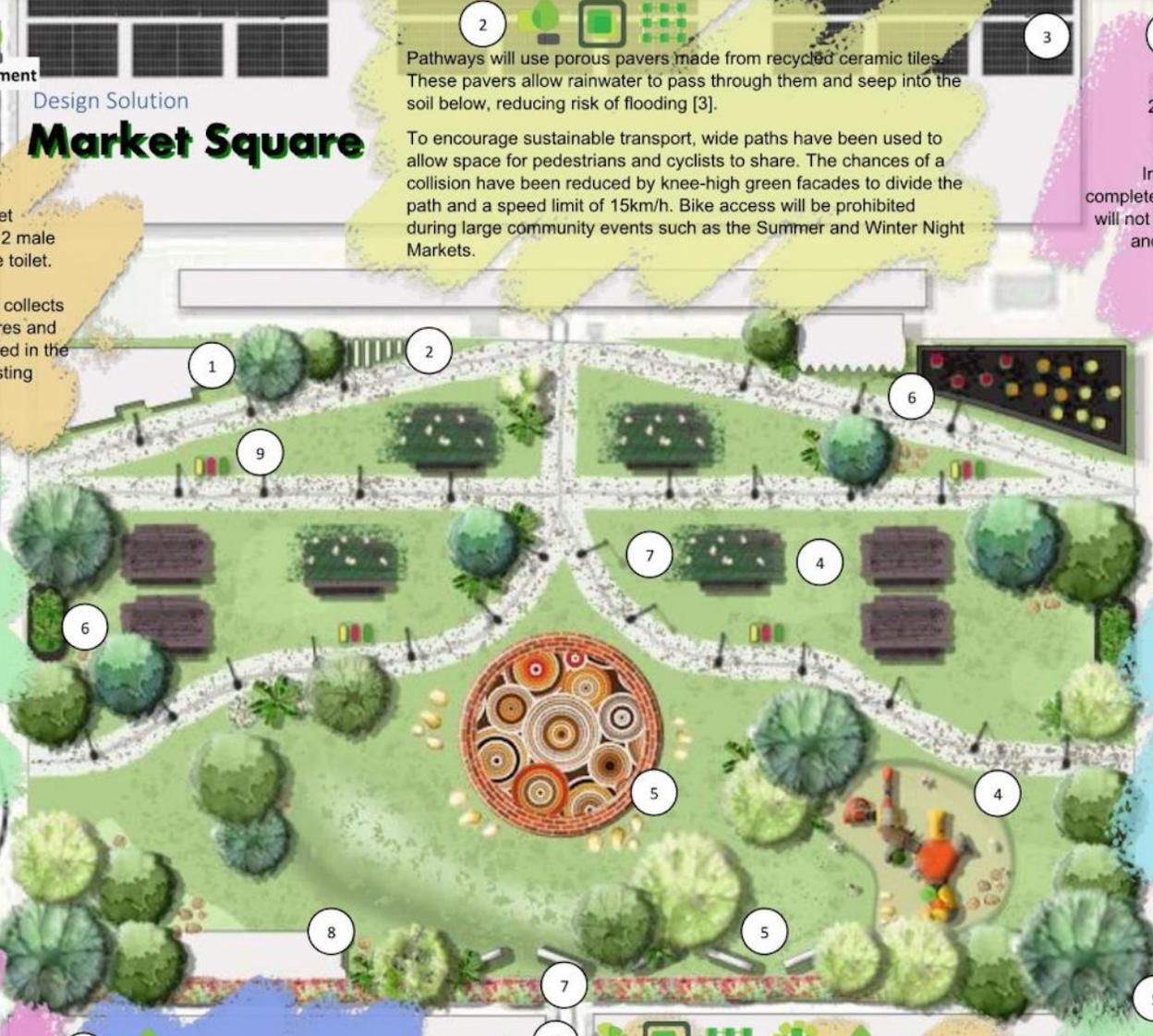


Design Solution  
**Market Square**

1  
 6/3 flush toilets will be installed in market square. There will be 11 female toilets, 2 male toilets, 4 urinals and 1 highly accessible toilet. They will be connected to the current underground 600kL storage tank which collects rainwater from the shed roofs [2]. Fixtures and fittings that reduce water flow will be used in the toilet block, similar to those used in existing

9  
 Market Square will be enforcing waste management by providing bins in many areas. There will be 3 bins: rubbish, recycling and compost. There will be signs on these bins to ensure that the public know what to put in each of these bins. This should reduce the waste there is currently for a nicer environment.

8  
 Shop vendors' need for additional storage has been accounted for. A secured storage shed is to be placed in Market Square, supporting and encouraging vendors to continue operating at QVM. This can also be used to store equipment for community events if needed.



2  
 Pathways will use porous pavers made from recycled ceramic tiles. These pavers allow rainwater to pass through them and seep into the soil below, reducing risk of flooding [3].

To encourage sustainable transport, wide paths have been used to allow space for pedestrians and cyclists to share. The chances of a collision have been reduced by knee-high green facades to divide the path and a speed limit of 15km/h. Bike access will be prohibited during large community events such as the Summer and Winter Night Markets.

3  
 Doubling the existing solar network will have 2/3 of the shed roof area utilised in producing renewable energy and reduce the market's dependence on Melbourne's energy grid [4]. Installation is relatively discrete and should be completed within the year. Solar powered streetlights will not contribute to energy consumed from the grid and will increase safety to encourage more foot traffic into the market.

4  
 Market Square aims to create a family-like atmosphere. Larger picnic tables will help locals to connect with each other while also introducing tourists to the vibrant and caring Melbourne community. The solar-powered fairy lights also provide an aesthetic and environmentally-friendly source of lighting.

The needs of children have been considered by including a playground that is both stimulating, educational and fun. Placing this playground near the centre of the Square also allows for adequate parental supervision.

7  
 Climbing plants will arch over the seating areas to create shade and promote the green city space. They will also feature on the back wall of Market Square. They may retain stormwater, reduce pollutants, encourage biodiversity and provide cleaner air [6]. Rainwater collected from the shed roofs will be used to water the facades [2].

5  
 Raingardens will capture stormwater running off the nearby impermeable surfaces. They use plants and soil to capture and filter stormwater, reducing risk of flooding [5]. They will use native vegetation, trees and vegetables. They will be constructed by volunteers to educate the local community about implementing raingardens in their homes. Vegetables and compost from the vegetable garden will be sold at Market Square's own stall or provided for free to volunteers.

5  
 Cultural music and dances can be showcased on the centre stage while the art installations will provide further opportunities to highlight cultural stories and traditions. Some installations will also be open to community input, creating an ever-changing mural to reflect the current values in Melbourne and establishing QVM as a 'market of the people'.

Local job growth will be also stimulated by hiring artists to perform at events, leading to a more prosperous economy.

Rebrand of YEA;  
consistent across  
all platforms and  
used in targeted  
event marketing



# Young Engineers Australia

IN 2021

Nationally driven  
professional  
development  
content for young  
engineers

Increase the voice of  
the Young Engineers in  
national discussions

Restructure of  
YEA National to  
provide more  
support to  
members



# Thank you!

To find out more, please contact Nicole through LinkedIn:  
<https://www.linkedin.com/in/nicolebrown56/>