

# Circularity

2023

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AUSTRALIAN  
CIRCULAR  
ECONOMY  
HUB  
PLANET ARK

21 NOV | 1:00 - 2:00 PM

## Financing the Circular Economy

### Keynote



**Andrew Hinchliff**  
Commonwealth  
Bank of Australia



**Tim Mumford**  
Beca

### Moderator



**Debbie O'Byrne**  
Planet Price



**Micheal Puli**  
ING Bank Australia



**Geri McMahon**  
KPMG Australia



**Christina Tonkin**  
ANZ Banking  
Group

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## Financing the Circular Economy



**Tim Mumford**  
BECA



**Debbie O'Byrne**  
Planet Price

# Integrating Planetary Boundaries into Financial Decision-Making

Designs to Dollars

Circularity <sup>2023</sup>



**Tim Mumford**  
GM, Digital & Innovation  
Transport & Infrastructure

BECA



**Debbie O'Byrne**

Circular Economy Expert  
Co-Founder

Planet Price

# A Point of No Return

## The Economic Elephant in The Room



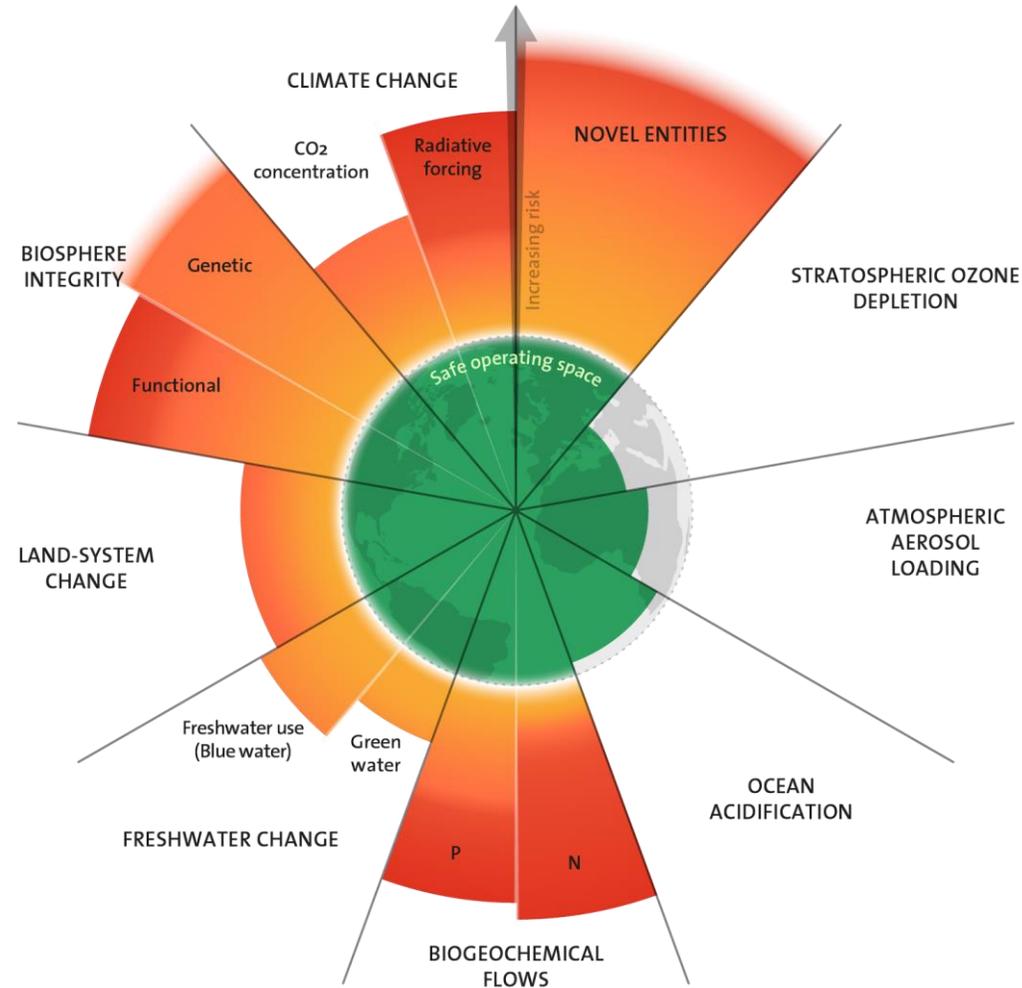
Australia contributes to 1.2% of Global emissions and ranks 11<sup>th</sup> in the world



Australia emits 470 Million tCO<sub>2</sub>e with six of the nine planetary boundaries in excess



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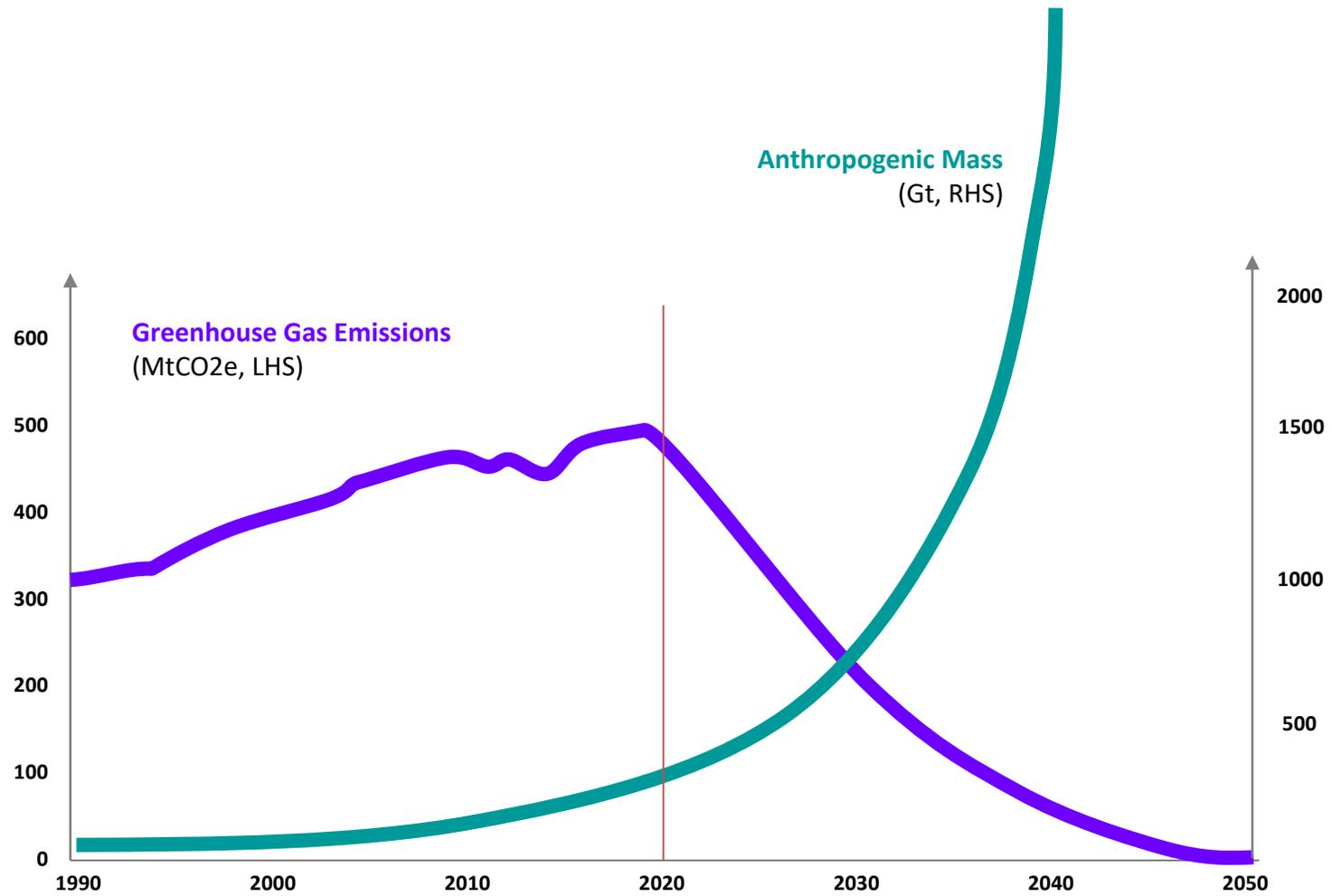
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Emissions can be reduced or avoided in design



Action can begin to reverse the 1.5 degree overshoot



A \$36 billion+ p.a. opportunity



Emissions can be reduced or avoided in design

“How do we currently manage carbon estimation in infrastructure & built environment ...”

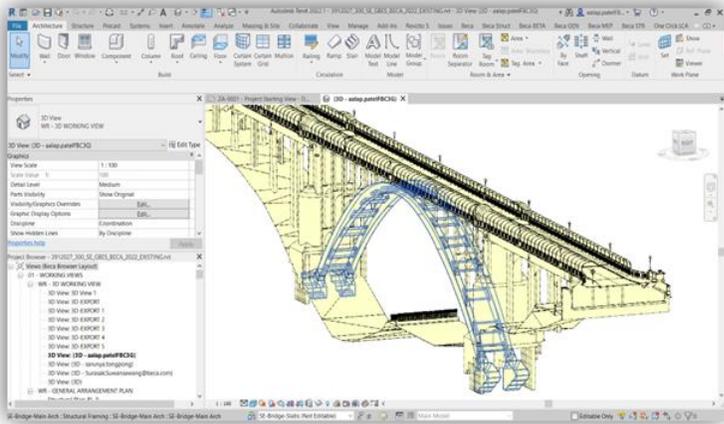


Doesn't occur at all

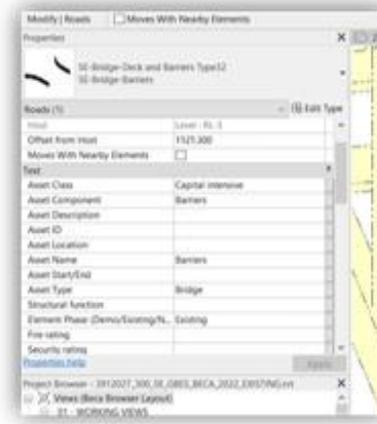
Manually calculated

Top-down calculation

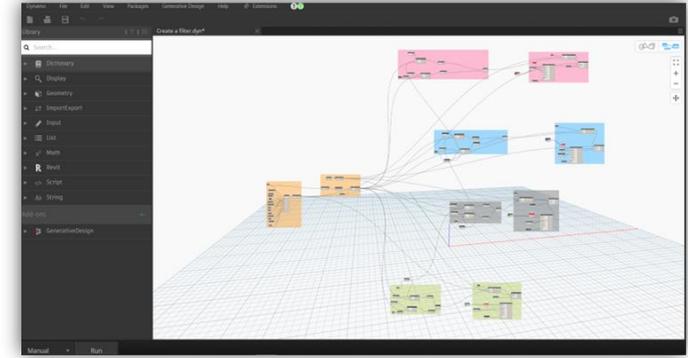
Bottoms up & automatic



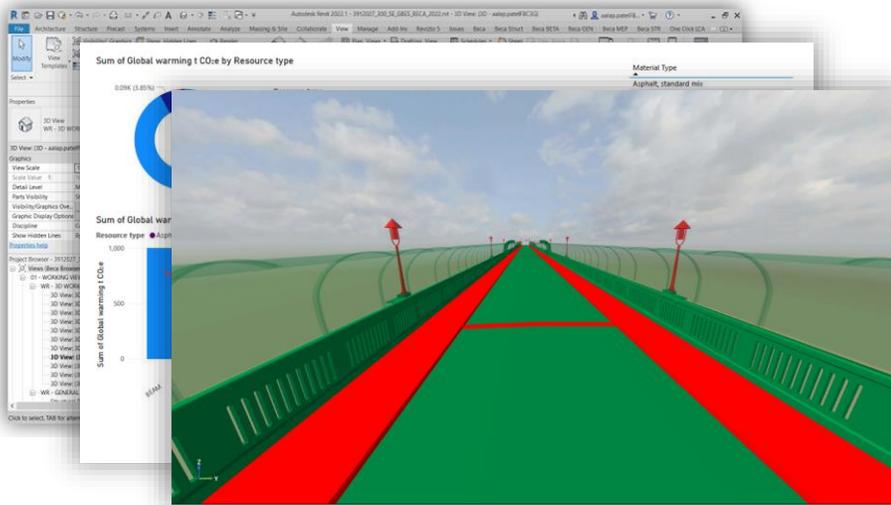
**Step 1**  
Use Model-Based Design



**Step 2**  
Tell Assets What They Are



**Step 3**  
Automate, Automate, Automate



**Step 4**  
Make it Consumable

Individual Designer

Project Leader

Client Leader

Financier

- Green/Sustainability Bonds
- ESG/EIS Assurance
- Financial Assurance
- Setting Benchmarks/"Glide Paths"
- Decision to Invest

**Step 5**  
Make Better Decisions

# Beyond Carbon

What about the other Planetary Boundaries?



# Beyond Carbon

Are We Measuring What Matters?

Project	Option #	Carbon TCO2 Eq.	Water m3	Respiratory Disease Kg. PM2.5	Acidification Kg. So2 Eq	Ecotoxicity CTUe	Ozone Depletion Kg. CFC-11 Eq	Eutrophication Kg. N Eq	Land Use m2	Smog Kg. O3 Eq	Cost AUD
Project X	1	7,323	12,243	14,369	41,276	38.7m	3.169	444	1.29m	191,964	<b>\$3.04m</b>
	2	2,674	4,534	3,341	14,114	12.8m	1.551	381	1.3m	164,792	<b>\$1.39m</b>
Difference		↓ 63%	↓ 63%	↓ 77%	↓ 66%	↓ 67%	↓ 51%	↓ 14%	↑ 1%	↓ 16%	<b>↓ 54%</b>

# The Road Ahead

## Dollars Create Designs



Start with the sector accountable for 40% of our annual emissions



Tools are available now; but not routinely used



We need all mechanisms of change working in the same direction:

- Legislation
- Policy
- Technology
- Investment
- Process
- Assurance
- Accountability

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