



# Program Overview: Understanding low emissions building materials

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The program importance for government agencies

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# Partnering to grow the market for low emissions building materials

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Turlough Guerin, Program Leader, Low Emissions Building Materials Program

Presentation at *"Net Zero Construction Materials: A Briefing for Government Executives and Leaders"*

International Convention Centre, Darling Harbour, 27 May 2021



# Overview

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- The problem and the opportunity
- The Low Emissions Building Materials Program
- Program partners
- Outcomes and deliverables
- Insights for government executives & leaders



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# The problem and the opportunity

# The problem and opportunity

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In NSW, it is estimated:

- 10 million m<sup>3</sup> of pre-mixed **concrete** is poured each year<sup>1</sup> and 2 million tonnes of **steel**<sup>2</sup>
- The value of non-residential construction work done is \$40 billion pa<sup>3</sup>
- Infrastructure pipeline >\$100 billion
- The production and use of construction materials is responsible for 13 Mt CO<sub>2</sub>e or 10% of annual total emissions (of NSW)



**There is a huge opportunity to activate the market**



Sources:

1. Cement Concrete & Aggregates Australia, Building a Strong Foundation for Australia 2018
2. Estimated from Capabilities of the Australian steel industry to supply major projects in Australia, Australian Steel Institute (Version 2.2 – October 2020).
3. ABS 2019-2020 Data Reports 8762 & 8752

Department of Planning, Industry and Environment



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# The Low Emissions Building Materials Program



# PROGRAM GOAL

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Grow the **market** for low emissions building materials

# A catalyst program with outreach

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Identify and engage business and government in construction



Jointly develop business case for change



Support stakeholders from design to asset delivery

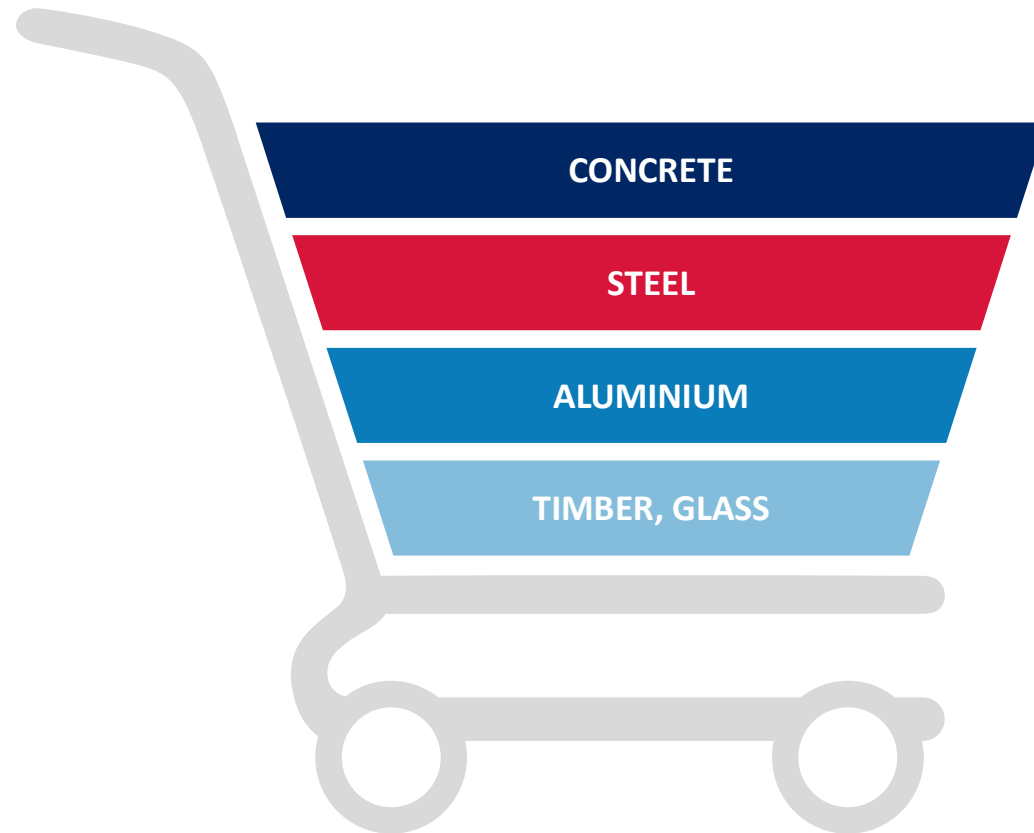


Increased demand in construction supply chain

## Actions:

1. Market research to understand problem
2. Partnering with industry
3. Engaging across government
4. Supporting improvement of certifications/ratings
5. Investing in innovation to unlock opportunities







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# Program partners



WWF

ISCOA



Presync





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# Outcomes and deliverables

# Outcomes and deliverables

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- Market research report delivered (see full report [here](#))
- Government engagement initiated
- Industry leaders' alliance established – MECLA
- MECLA Founding Members represent large market share
- Working groups of MECLA established

# Industry Leadership Group MECLA Working Groups



**Demonstrate demand:** Give confidence to suppliers



**Defining best practices:** Identify tools for decision making



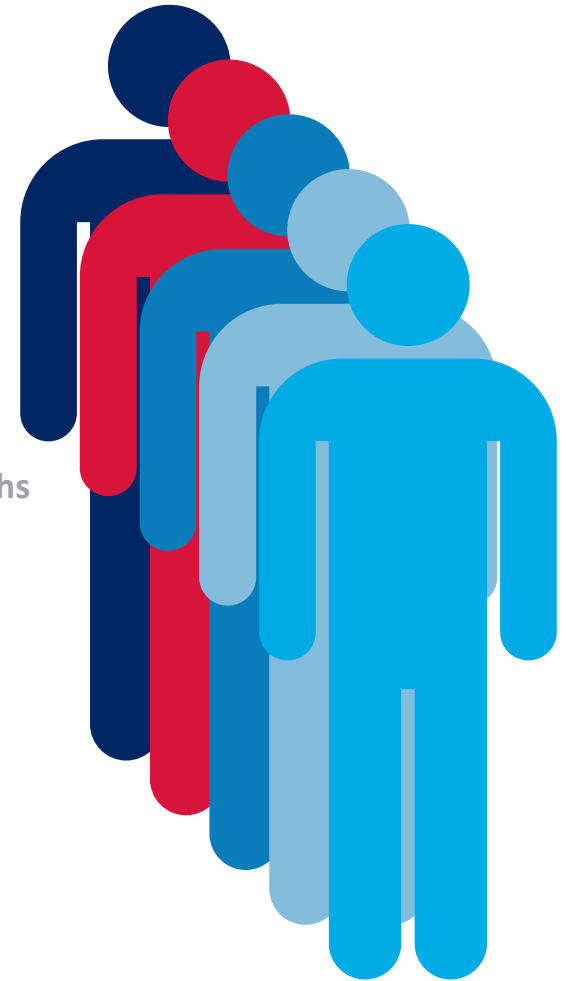
**Building, capturing knowledge base:** Show what's possible & bust myths



**Develop common language:** Support roles in the materials value chain



**Specific materials:** Focus on cement, steel and other materials





WWF



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Building Australia since 1882

**ARUP** **aurecon**



Australian Institute of Architects



AUSTRALIAN SUSTAINABLE BUILT ENVIRONMENT COUNCIL



Australian Institute of Landscape Architects



**NSW**  
GOVERNMENT

AUSTRALASIAN PROCUREMENT AND CONSTRUCTION COUNCIL



blueScope



**BORAL**



**BuildFit**

**BINGO**  
INDUSTRIES



**BvW Global**  
Consulting | Technology | Resourcing | Outsourcing

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Green Building Council Australia



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**Interface**  
NABERS

Pangolin Associates

SUPPLY CHAIN SUSTAINABILITY

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The Footprint Company™  
BUILDING SOLUTIONS FOR ONE PLANET



thinkstep anz

PROPERTY COUNCIL of Australia

**Transurban**



THE UNIVERSITY OF SYDNEY

**EARTH FRIENDLY CONCRETE**  
by **WAGNERS**



**XLAM**

**MECLA**

COLLABORATION FOR CHANGE





*“We joined [MECLA] because we want easy access to cost competitive, low embodied carbon materials, and we’re here to amplify the demand from our projects for such materials”*

**Joe Karten, Built  
Chair Working Group, MECLA**





*“GBCA and ISCA provide a great mechanism for driving demand –  
a tremendous pull-through”*

**Marketing Manager, Steel Supply Company**



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# Insights for government executives & leaders

# Insights

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- High levels of engagement
- Market development requires push and pull
- Limited communication up and down materials value chain
- Conservatism abounds in the construction sector
  - High influence of specifying engineers
  - Time cost quality is still a fundamental of project management
- Standards & ratings schemes: Medium/long term focus to modify existing/develop new



● **Design**

Design and Construct teams need to consider NZE in concept stages



● **Specify**

Specifying engineers need confidence in functionality of new materials



● **Procure**

Projects need to purchase with certainty: time, cost & quality



● **Deliver**

Asset delivery is the “proof” of effectiveness of our NZE and Circular Economy efforts



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# Remainder of program and post-program





# Discussion

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Go to [sli.do](https://sli.do) | Event code #NZEconstruction



# Next steps

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## Stay in touch!



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