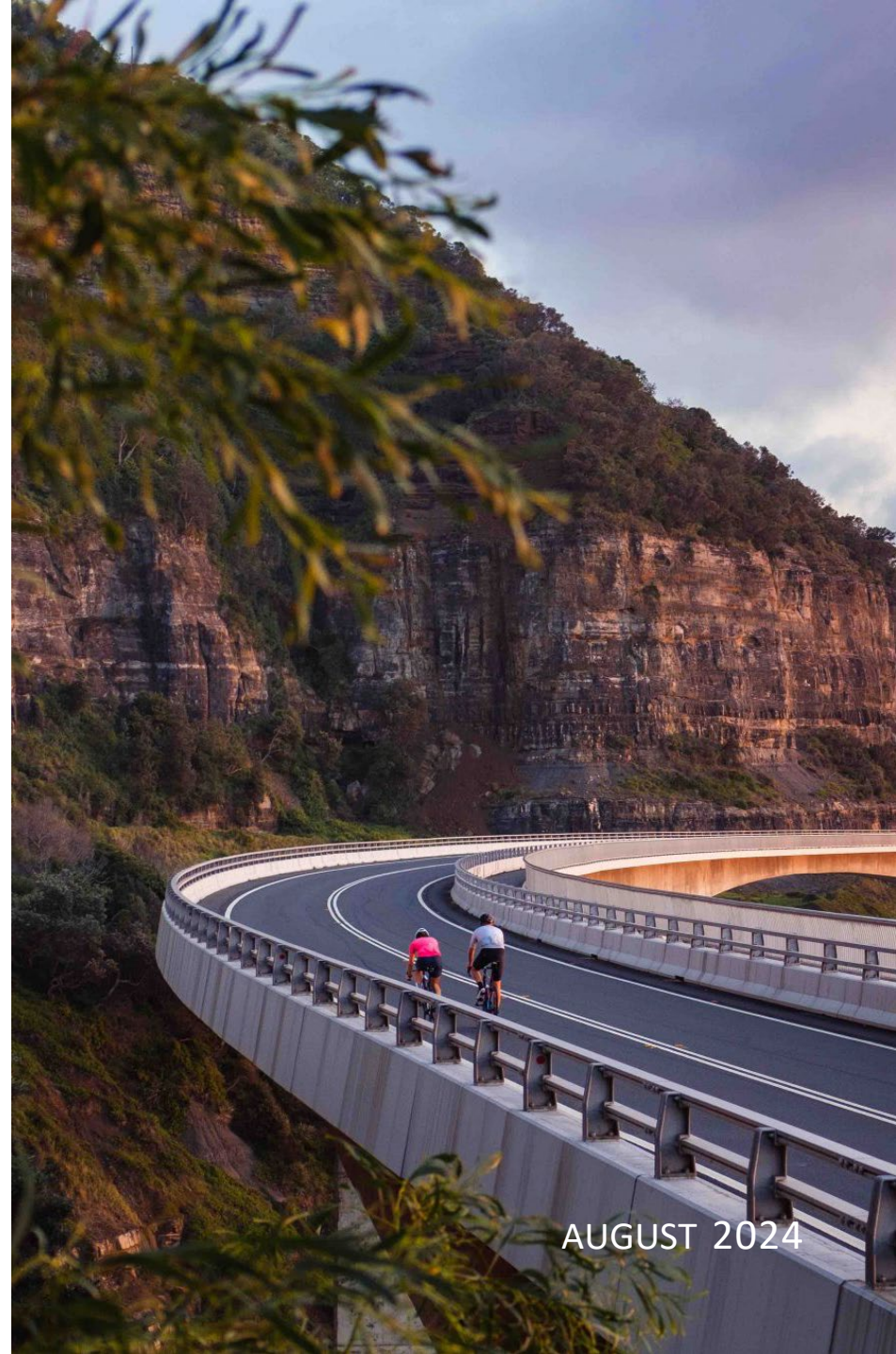


Affordable & Sustainable Infrastructure for New South Wales

NSW Major Projects Conference 2024
Michael Kilgariff, CCAA CEO



AUGUST 2024



About CCAA

Cement Concrete & Aggregates Australia is the voice of the heavy construction materials industry in Australia.

CCA membership supply around 90% Australia's cement, concrete & aggregates used to build infrastructure.

The industry generates approximately \$15 Billion in annual revenues and employs approximately 30,000 Australians directly and a further 80,000 indirectly.



Foundation Members



Members





Associate Members



Infrastructure Australia Market Capacity Report

KEY METRICS

- \$230bn in Infrastructure over next 5 years
- NSW infrastructure share is \$102.5bn
- 1.2 million new homes
- Energy sector to quadruple



45%



Infrastructure Australia Market Capacity Report

IA'S CHIEF EXECUTIVE ADAM COPP SAID:

- “demand for building materials, skills, and labour is at a historic high”
- “increasingly difficult to source key building materials and workers”
- “limited access to local steel and cement, as well as localised shortages of quarry products is contributing to price uncertainty in the supply chain, leading to delays and cost overruns”
- “acute quarry shortages loom in Melbourne, NSW’s Mid North Coast and South East Queensland”

Quarry Approvals Coordinator...



CASE STUDY

Case study: Victorian Government Quarry Approvals Coordinator (QAC)^{10,11}



A successful pilot that delivered immediate results

In 2022, a Victorian Government study on quarry material demand and supply indicated the construction industries were facing pressure from unprecedented supply chain challenges .

The Quarry Approvals Coordinator pilot program was launched to directly respond to these challenges. It was tasked to engage with the quarry industry to secure the supply of quarry-based construction materials.

The Quarry Approvals Coordinator was a dedicated resource within the Victorian Government for industry, to make regulatory pathways and processes more accessible. The Quarry Approvals Coordinator case managed opportunities within its scope to ensure applications met the necessary requirements, and applications were prepared and submitted without unnecessary delay.

Short term interventions

The primary goal of the QAC was to unlock, in the short term, additional supplies of hard rock and sand resources for development across Victoria. To do so, it worked with quarry operators to identify opportunities to expand existing operations via a change process known as an administrative update.

Alongside its core functions, the QAC also played a critical role in developing the government’s emergency flood response for quarry materials, including facilitating Victorian planning provision amendment VC228. This amendment will enable quarries supplying materials for road construction and maintenance apply for a temporary extension of operating hours to assist in the state’s flood recovery efforts. In the first instance, this material will assist deliver the government’s \$165 million road repair blitz.

Pilot outcomes

During its eight-month pilot phase, the Quarry Approvals Coordinator helped targeted quarries unlock more than 40 million tonnes of additional resources, including sand for concrete production and hard rock for road construction and maintenance. This additional resource would have otherwise not been realised.

Medium term solutions

Following the success of the Quarry Approvals Coordinator, a further two years of funding was provided under the 2023-2024 Victorian State Budget to establish Resources Victoria Approvals Coordination. The funded initiative continues the work of the Quarry Approvals Coordinator with an expanded remit, including minerals development projects.

Extractives are critical to affordability...



EVERY AUSTRALIAN needs **8 TONNES** per year of stone, sand, gravel and cement to build the roads, houses and other infrastructure



HIGH RISE BUILDINGS use up to **1,000 TONNES** of aggregate per floor



HIGHWAYS use **14,000 TONNES** of aggregate per km



AVERAGE NEW HOME uses **110 TONNES** of aggregate and over **50m³** of concrete.



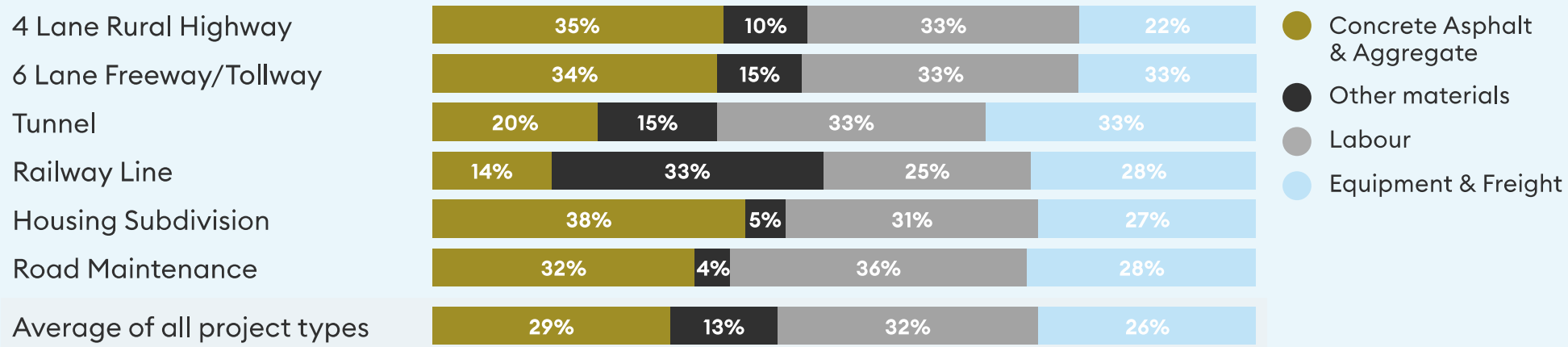
CAPABLE LOCAL SUPPLY CHAIN
Local industry, supporting local jobs on local projects in their local communities.



HEAVY CONSTRUCTION MATERIALS average **29% OF PROJECT COST**

Extractives are critical to affordability...

ESTIMATED PROPORTIONS OF TOTAL PROJECT COSTS BY TYPE OF PROJECT



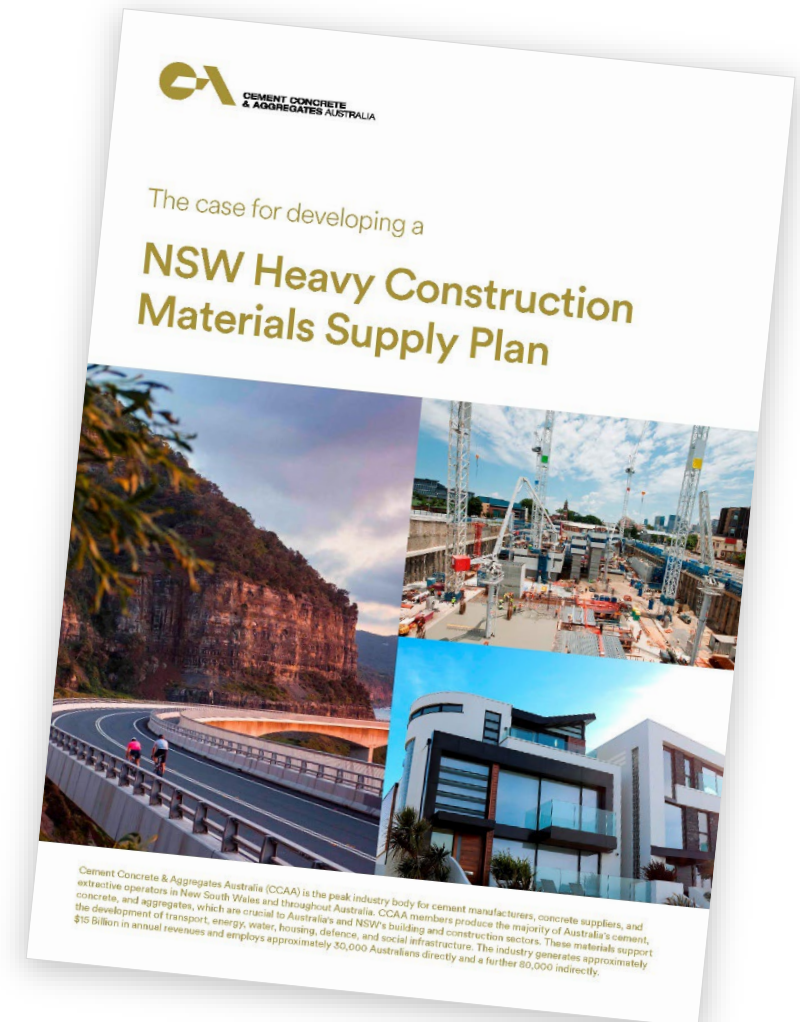
Source: Macromonitors (2022)

Percentage of total costs

NSW needs a Heavy Construction Materials Plan

WHY?

- A plan for infrastructure, housing, energy, transport, etc.....but no plan for the building blocks needed to deliver these essential projects that drive our economy
- Natural sand reserves set to run out around 2030
- Travel distances growing.... Increasing costs, embedded carbon & requiring more trucks and drivers
- Shortages of quarry products in NSW mid north coast
- Housing development around quarries and transport corridors restricts approvals
- Glebe Island under threat



NSW needs a Heavy Construction Materials Plan

WHAT?

- Ensuring proximate and adequate materials
- Protection of extractive resources from urban encroachment and sterilisation
- Sustainable, efficient, cost effective, and timely delivery, including the mapping and protection of key freight routes
- Review of current licensing and approval framework for quarries
- Housing development around quarries and transport corridors restricts approvals
- Address port requirements and associated rail and road infrastructure
- Future land use planning to house concrete batching plants, terminals etc.






...and more



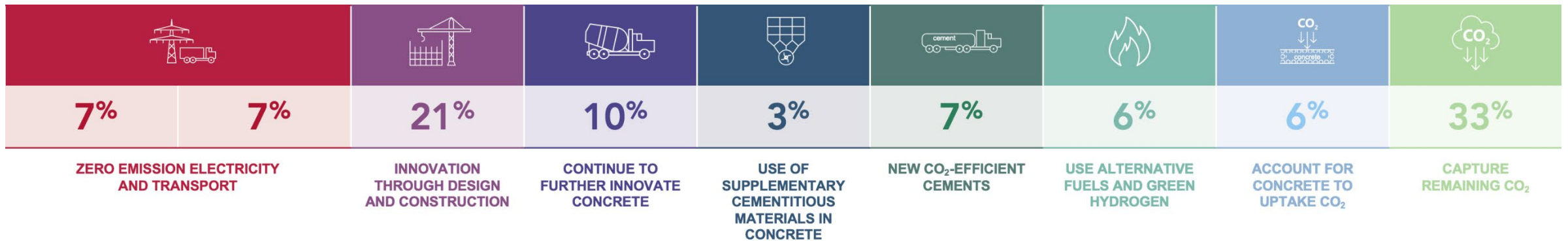
Decarbonisation

KEY INGREDIENTS:

- Cement & Concrete Industry Decarbonisation Plan 
- NSW Govt. Sustainable Procurement Policies 
- Changes to Australian Standards and agency specifications 

Decarbonisation

CEMENT & CONCRETE INDUSTRY DECARBONISATION PATHWAYS REPORT



- This independent report was released in 2021, following the Australian cement and concrete industry declaring its ambition to deliver net zero carbon cement & concrete by 2050.
- The new report enables a better understanding of the technologies and practices necessary to decarbonise Australian cement and concrete, and identifies eight decarbonisation pathways and key future research requirements.

Decarbonisation

INSW & TfNSW SUSTAINABLE PROCUREMENT POLICIES:



- Lifecycle carbon approach strongly supported
- Recognition of need to change specifications
- Metrics to recognise EPDs

Decarbonisation

CHANGING AUSTRALIAN STANDARDS AND TFNSW CONCRETE SPECIFICATIONS

- Time to change is years..... Must prioritise this work NOW!
- Many specs limit use of SCMs through testing regimes etc.
- Cement Standard AS3972, significantly limits lower carbon cement options for Type GP, GL and alternative binders
- Opportunity for TfNSW to adopt international standards & lead other state and territory infrastructure agencies.

Key Messages

COLLABORATION IS KEY TO DECARBONISING THE BUILT ENVIRONMENT AND ACHIEVING OUR INDUSTRY'S CLIMATE AMBITION

- NSW must have a Heavy construction Materials Plan
- Sustainable Procurement Policies help industry
- Must always measure lifecycle carbon
- We must act now on Australian Standards & Specifications



Thank You!

For more information go to [cca.com](https://www.ccaa.com)