

# THE LITHIUM INDUSTRY AND CIRCULAR ECONOMY

**Unlocking potential  
for Australia's  
construction market.**



**Mauricio Olivares**

GM Technical of  
Covalent Lithium

*"Our competitiveness in the market is linked to creating cleaner products, it's a win-win."*



**Antony Missikos**

Chair of  
Green Deal Alliance (GDA)

*"Market creation and market adoption needs to be collaborative."*



**Craig Heidrich**

CEO of Australasian  
Pozzolan Association  
(APoZA)

*"There needs to be a streamlined process endorsed by government for this upcoming wave of by-products."*



**Anushree Malaviya**

Associate Director of ARCH  
(Panel Moderator)

*"Every organization must take a long hard look at their business and redesign for circular economy."*

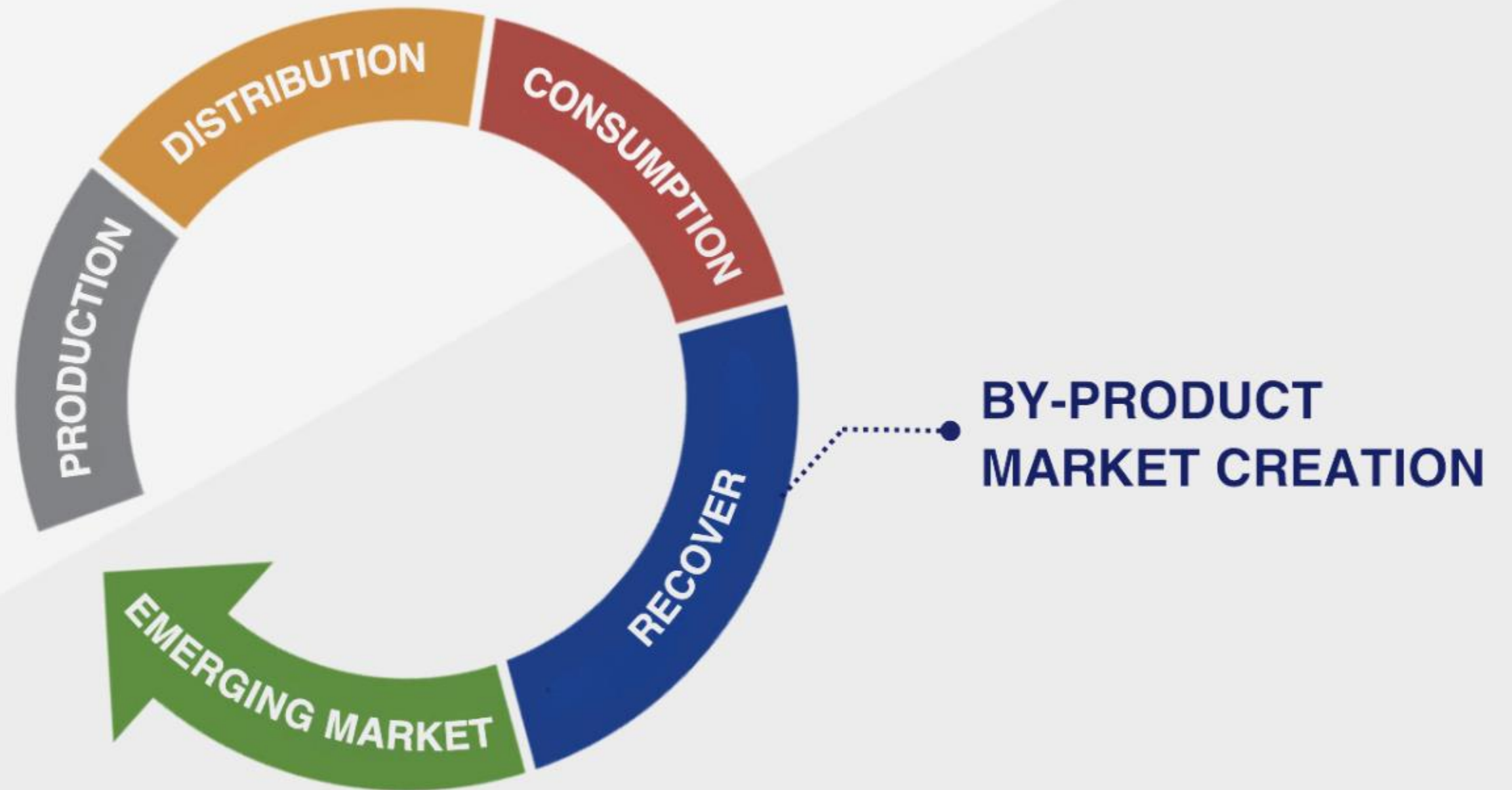
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# AN EMERGING MARKET

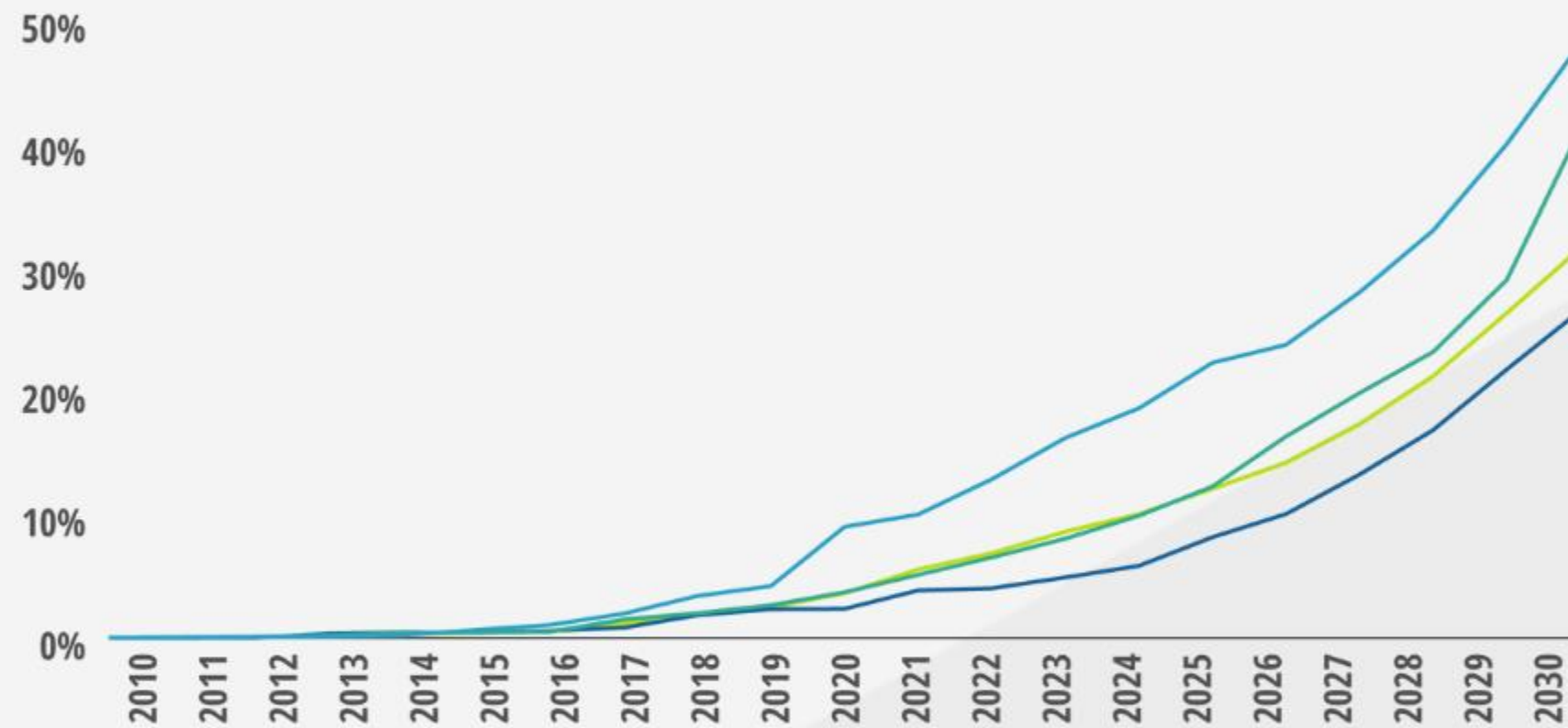
A **circular economy** is an alternative to traditional linear economy thinking; moving away from - Create, Consume, Landfill.



# GROWING DEMAND FOR LITHIUM

## Outlook for EV market share by major region

— US - EV market share — Europe - EV market share — China - EV market share — EV Global share of sales



-  Lithium metal is so light it floats on water
-  Electric vehicle sales are expected to grow tenfold by 2030
-  Australian lithium exports will more than double over the next 5 years
-  May 2022: Australia's 1st continuous production of lithium hydroxide

Source: Deloitte analysis, IHS Markit, EV-Volumes.com<sup>17</sup>

 **Over the next ten years the number of EVs in our Australian electricity network will grow from 2,000 to more than 300,000.**

Jamena February 2024

# LITHIUM BY-PRODUCT

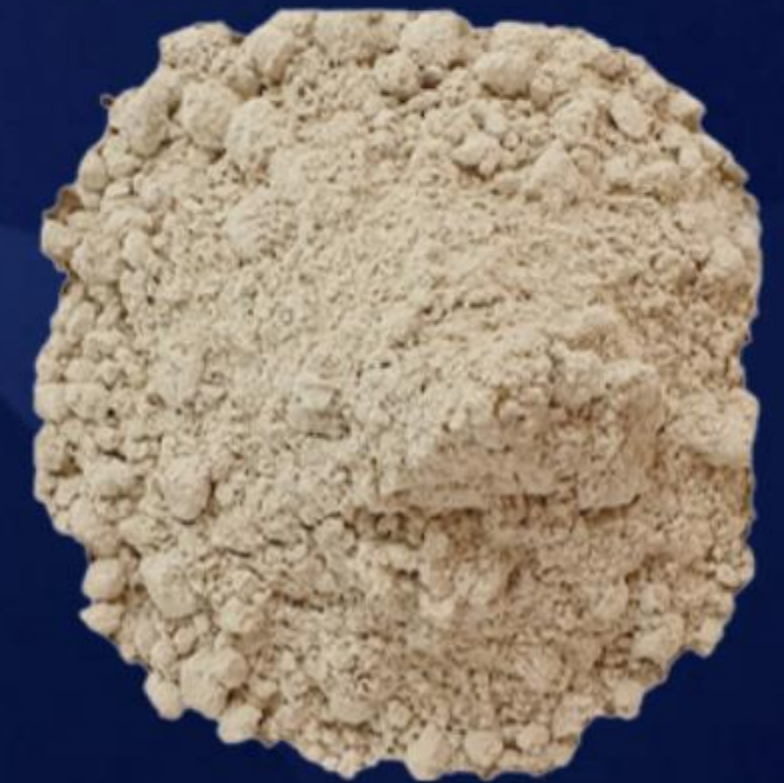
Lithium by-product after  
being processed  
can be used as:



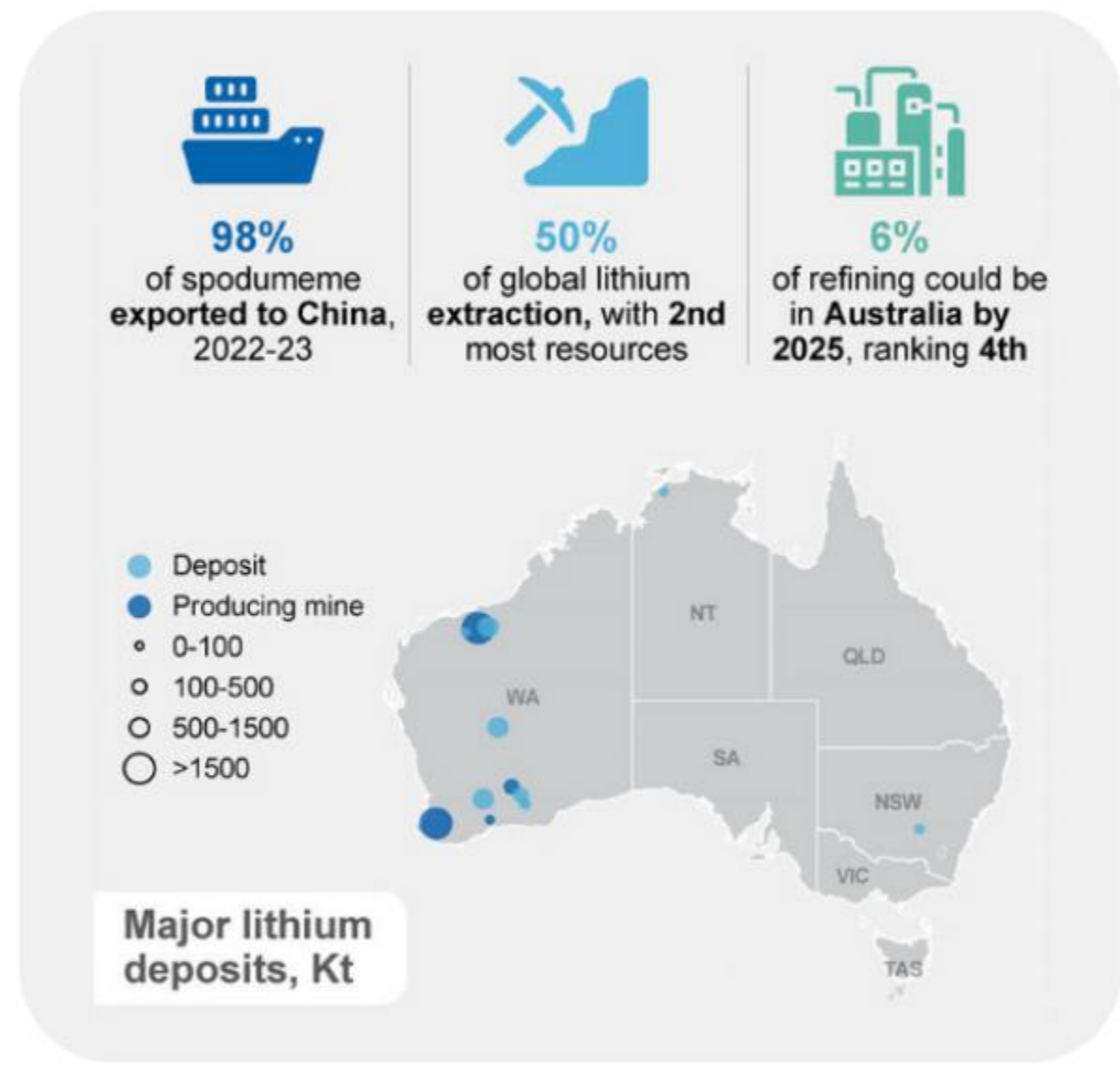
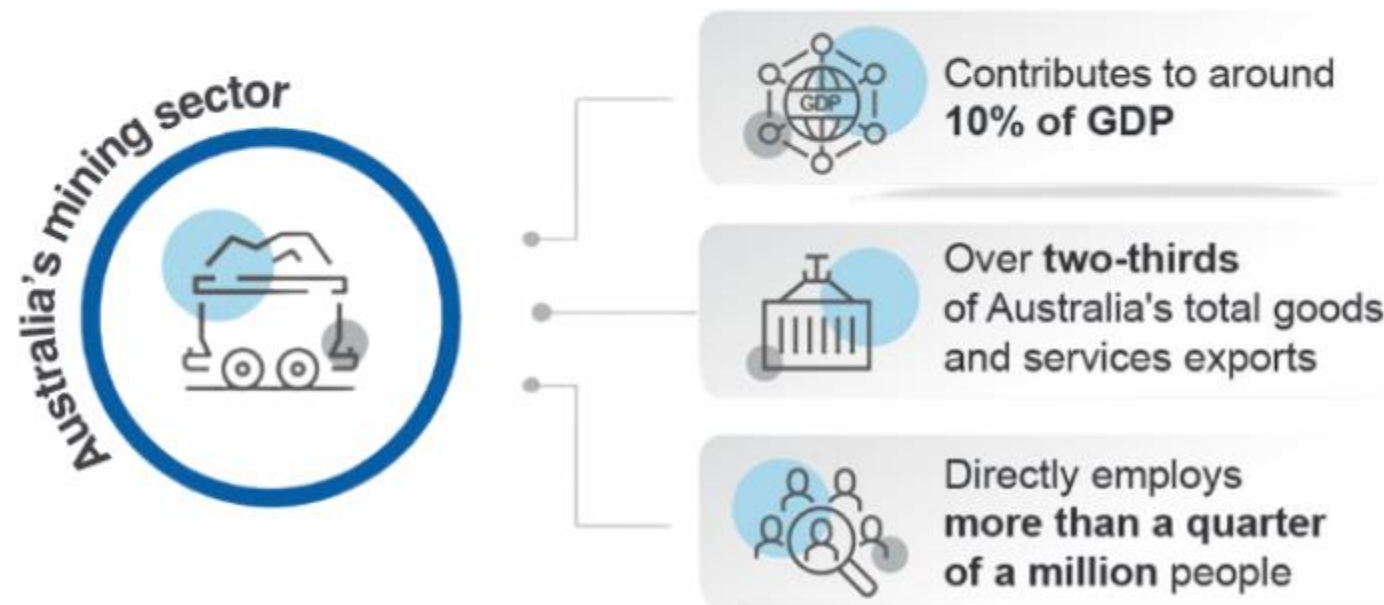
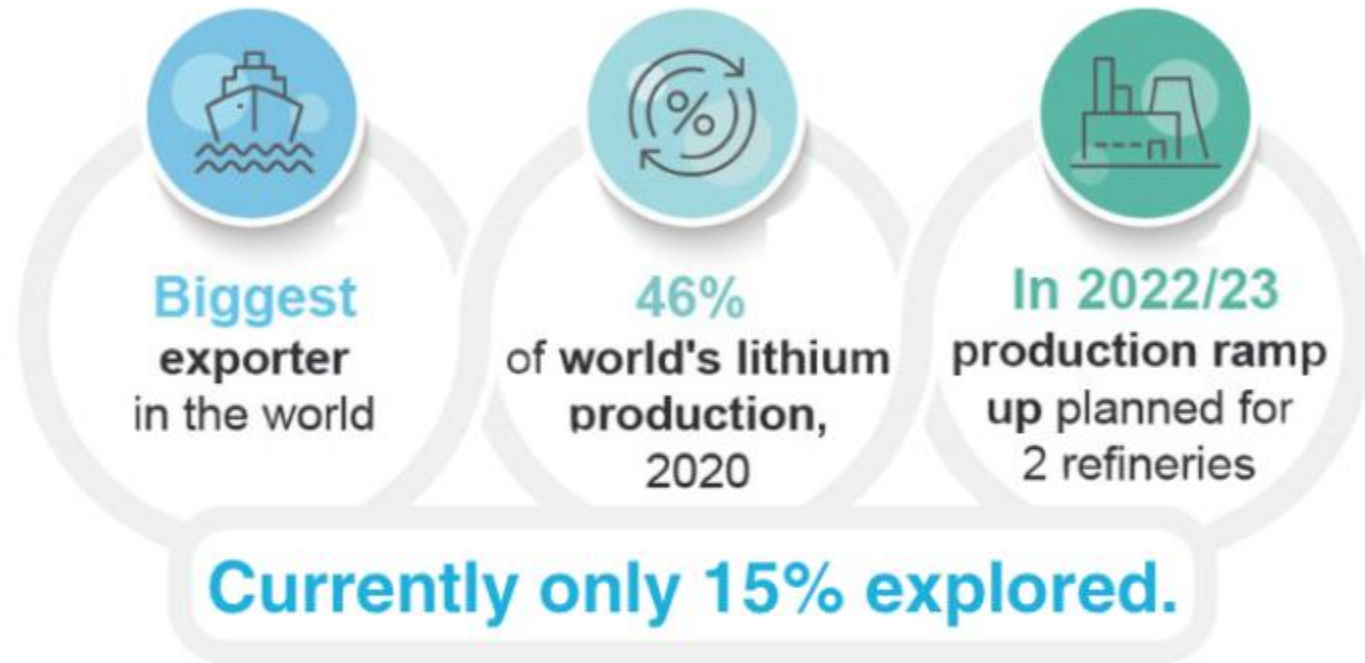
**Manufactured  
Pozzolan**



**Manufactured  
Sand**



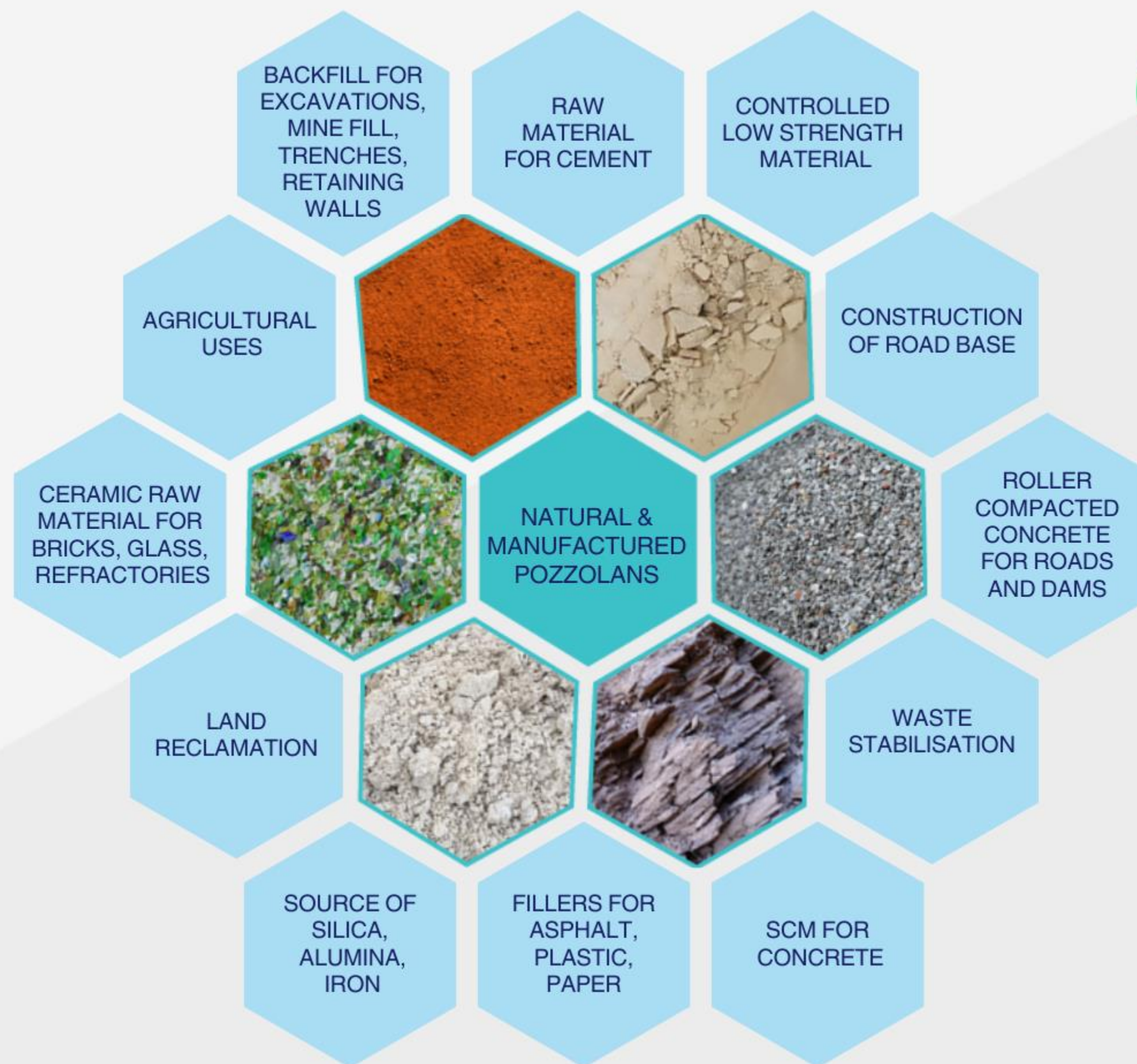
# AUSTRALIA'S LITHIUM SECTOR



**2023/2024 Lithium is estimated to be worth \$15 billion in export value.**

# USES FOR POZZOLANS

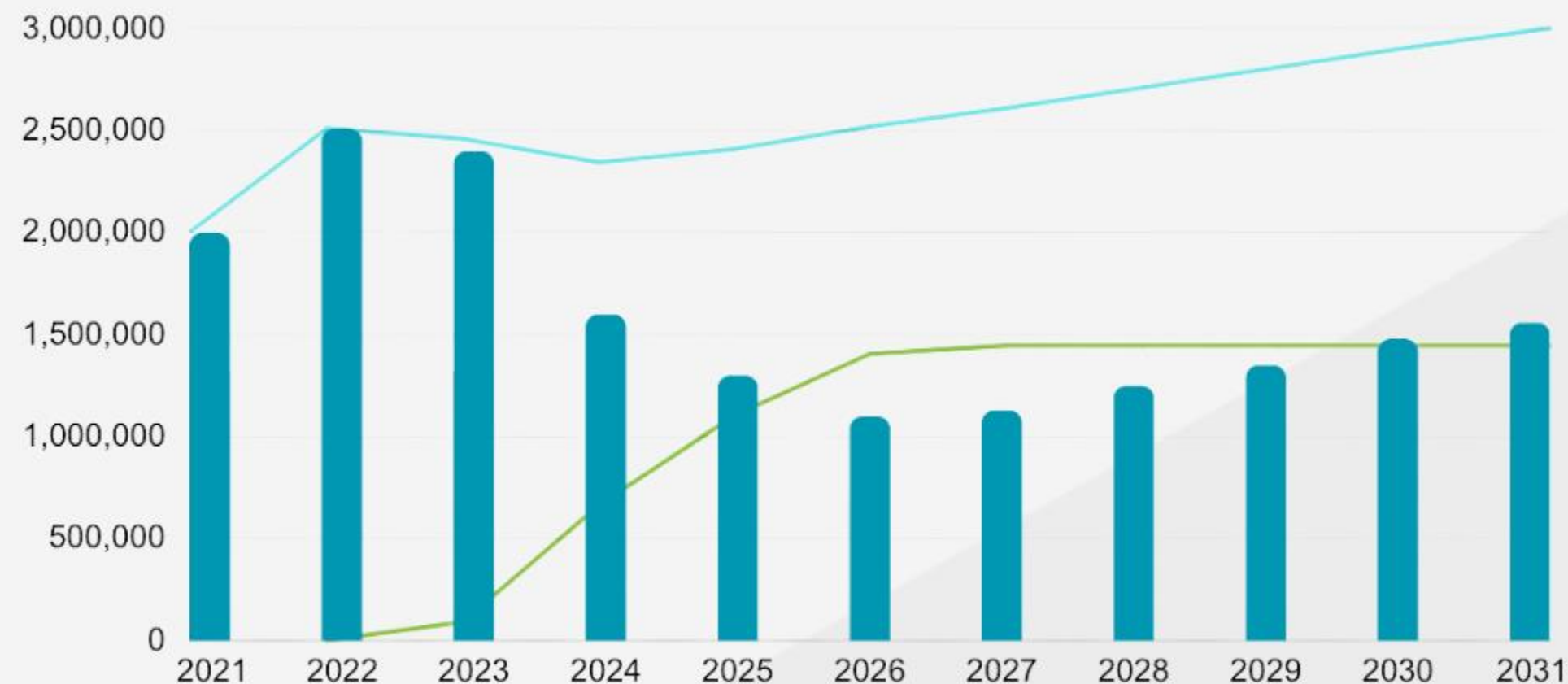
The cement industry is estimated to be a \$12 billion market.



# MANUFACTURED SAND



Manufactured sand supply (from Lithium ore-sand) and imported sand demand forecasts



- Total Manufactured Sand Supply (tonnes)
- Total Transport Portfolio Demand for Imported Sand (tonnes)
- Remaining Demand if all Manufactured Sand is Used (tonnes)

**“ That equates to approximately 54 million tonnes of conventional road construction material that could be replaced with recycled content. ”**

**The Minister for Environment  
Tanya Plibersek | Infrastructure Australia**

*\*This excludes Manufactured Sand.*

Disclaimer: all data is based on estimated forecasts.



# OUR CURRENT CHALLENGES

Covalent Lithium recommends, where commercially viable, to avoid and minimise greenhouse gas emissions.

IPCC 1.5 report recommends the ambitious target of net zero emissions by 2050.

Construction industry has committed to be net zero by 2050.

Green building council ratings.

Infrastructure sustainability council ratings.

Increase in electric vehicles.

WA government has made a commitment to reach net zero by 2050 & 80% reduction in ESG emissions by 2030.

NSW Government is targeting a 50% reduction in carbon emissions by 2030 & net zero by 2050.

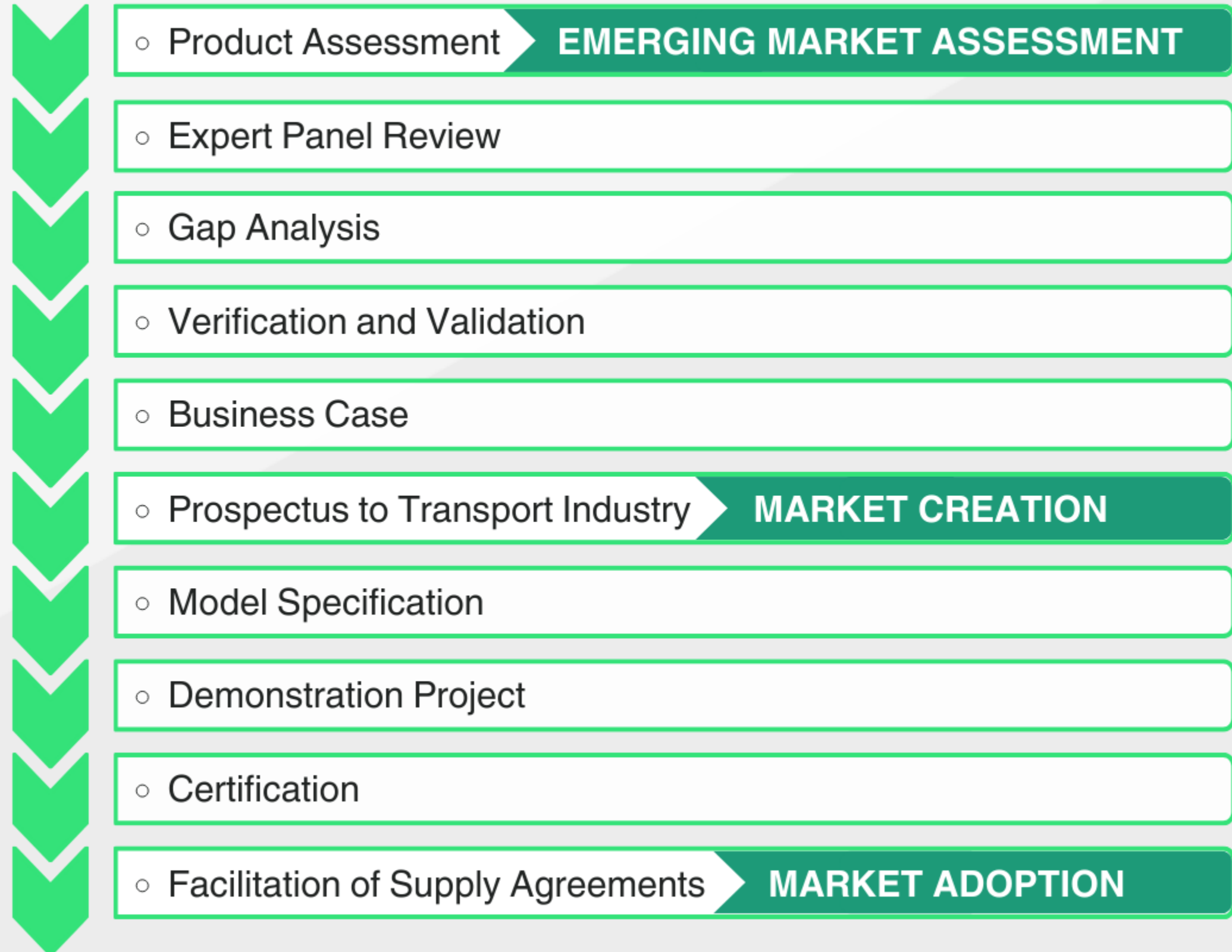
Environmental product declarations.

Renewable energy projects.

Green energy transition.

Decarbonisation of the supply chain.

# PRODUCT STEWARDSHIP SCHEME PROCESS





# THE WIN-WIN

Recovery of materials creates 9.2 jobs per tonne compared to 2.8 per tonne for landfilling.

Reduces CO2 emissions by up to 30% than current cementitious materials.

Enabling use of Manufactured Sand and Manufactured Pozzolan will:

- aid decarbonisation of the supply chain,
- promote development of circular economy in Australia,
- provide security of material supply.

By creating cleaner products we also lower material costs, transportation costs, road wear costs, reduce landfilling and conserve natural resources.

This \$15 billion industry has the potential to create additional value via circularity.

# WHERE TO FROM HERE?

To decarbonise the construction material supply chain, the industry must work together. How do we incentivise them to use these products?

How do we ensure these products are not stuck in roadblocks so we can reach ESG targets and commitments by 2050?

How do we get industry and government support to ensure we capture the value these products can bring?

How do we get adoption of a streamlined pathway for product adoption?

How do we reshape the current market to ensure these by-products are considered first?



# CONNECT WITH US.



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Product Stewardship Scheme:  
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