



Curtin University

# WA's Mineral Carbonation Roadmap

An opportunity to participate in the future of CO<sub>2</sub> management in Western Australia

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Michael Hitch and Tejas Bhatelia

Net Zero

Perth

A global university

Western Australia | Dubai | Malaysia | Mauritius | Singapore



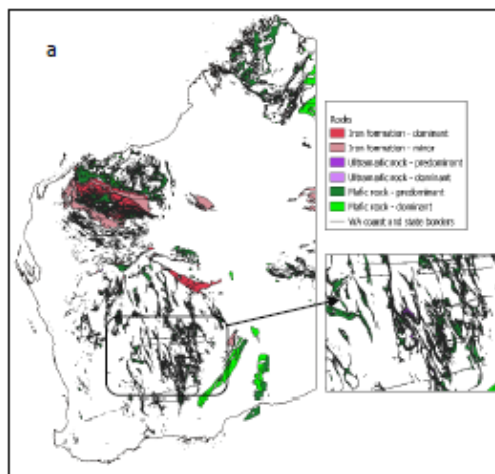
# Why is Mineral Carbonation Important to WA?

- Effective carbon management is an important, necessary and unavoidable component of WA's CO<sub>2</sub> abatement future
- As a potential large-scale, industrialised solution, mineral carbonation presents numerous advantages
- The WA mining and refining industry produces billions of tonnes of ore and mineral products each year – the production by-product has significant financial value in other ways

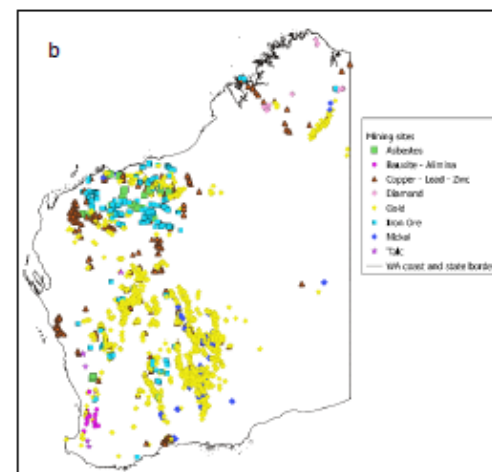


# WA is a Target-rich Environment

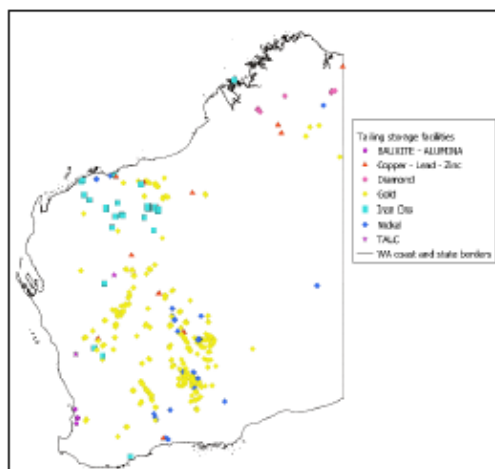
**Mafic, ultramafic and iron-rich rocks**



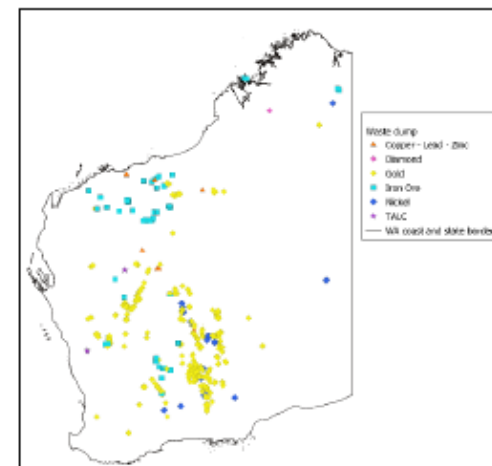
**Locations where minerals outcrop**



**Tailings storage facilities of minerals suitable for carbonation**



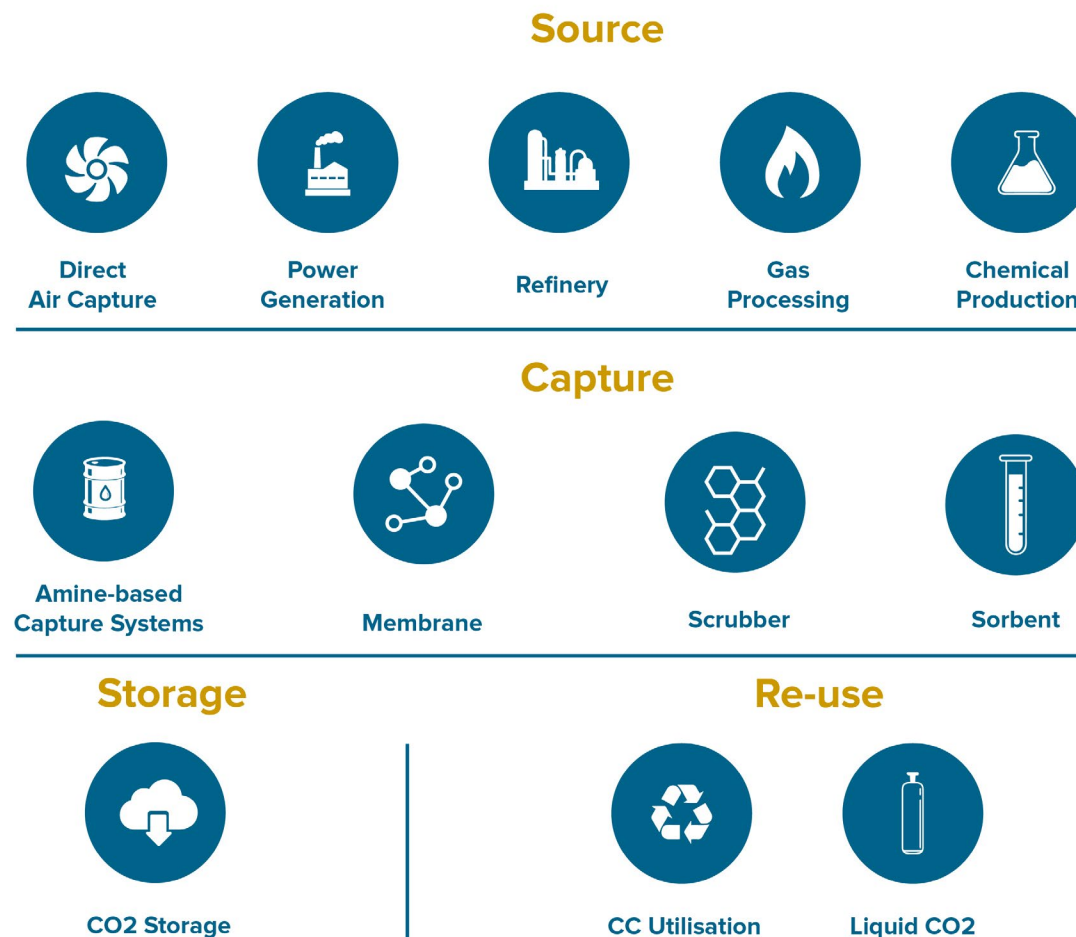
**Waste dumps of minerals suitable for carbonation**



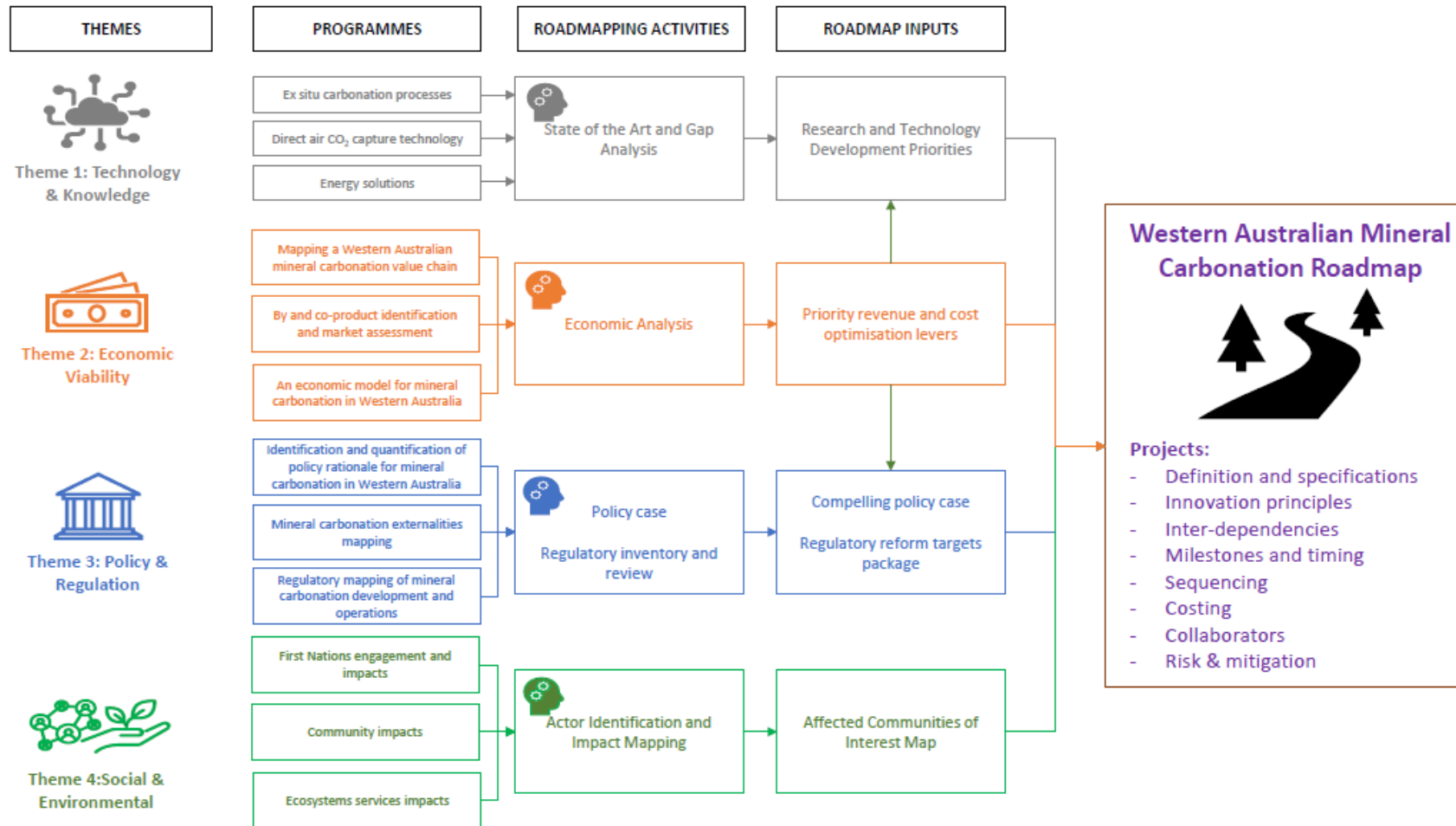


# Challenges and Opportunities

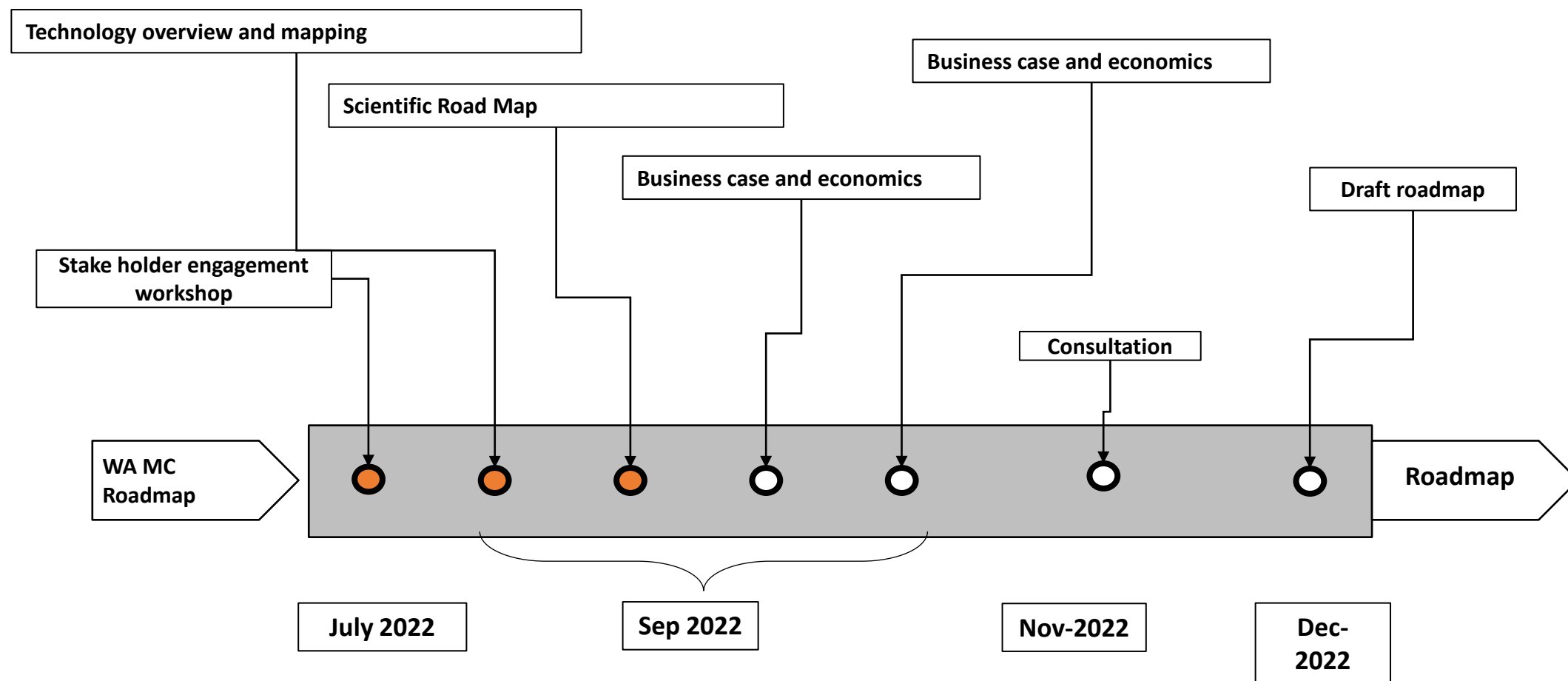
- Re-use: Bio-utilisation, Liquid Fuels, Methanol/Chemicals
- Direct Air Capture: Seems like the likely path
- Storage: Mineral Carbonation
- By-products: industrial Minerals
- Syn-products: CO2 offset credits



# Areas of Collaboration



# Timeline to completion





# Come and join us

- Looking for multi-sector participants to share their innovative ideas, concerns and passion
- Holding a series of thematic workshops to identify the best pathway forward to industrialising CO<sub>2</sub> at scale
- The WA mining and refining industry produces billions of tonnes of ore and mineral products each year – the production by-product has significant financial value in other ways



# Tell us where you want to help

