



# Resources Technology and Critical Minerals Trailblazer

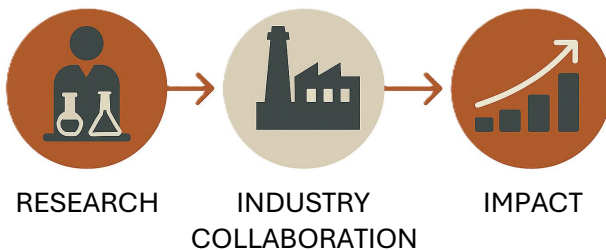
Transforming how industry, universities and research work together

Supporting optimization of resource operations by developing new technologies

Equipping innovators with the skills and knowledge to transform the sector

## Project

**Sustainable REE Extraction from Australian Ores using Environmentally Friendly Reagents, Advanced Characterisation Techniques and Geological Knowledge**



 Curtin University

IN COLLABORATION WITH

# Sustainable REE Extraction from Australian Ores using Environmentally Friendly Reagents, Advanced Characterisation Techniques and Geological Knowledge

## Project Description

### Problem

REE ore characterisation is only available for limited range of ore types.

Current extraction technologies are only applicable to a limited range of ore types and involve high chemical consumptions and production of hazardous waste.

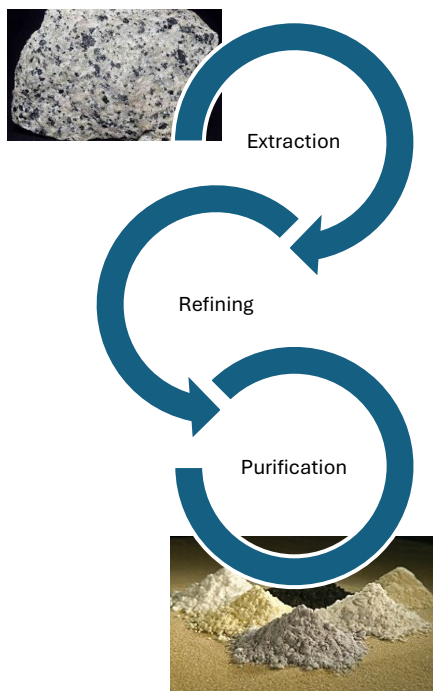
### Aims

Develop new protocols for ore type characterisation.

Design environmentally friendly methods for REE extraction.

Transiate laboratory characterisation and extraction results into scalable industry tools.

Position Queensland as a characterisation and processing hub for REEs.



## Partnerships

### Collaborators

James Cook University –  
Geoscience, Physical Sciences,  
Engineering

Industry – NorthX, Ark Mines, Basin  
Energy, Sunshine Metals, Critica  
Limited

### Project Lead

Assoc. Prof. George Vamvounis, JCU

### Contributions

Industry ~ \$0.87m

Trailblazer ~ \$0.77m

Total Project Value ~ \$1.6m

April 2026

For further information on JCU Trailblazer projects please  
send enquiries to: [EGRU@jcu.edu.au](mailto:EGRU@jcu.edu.au)



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