

# Mining & Metals

**We make things happen.** Problem-solvers with a passion for transforming our world.





## Beca Mining & Metals

Beca is a leading provider in the mining and metals market across Australia, New Zealand, the Pacific and Asia, underpinned by a global network of technical specialists, project managers and advisors. We provide multi-layered engineering, project management, operations and maintenance services throughout the project lifecycle as listed in the below diagram.

We draw on the experience and knowledge of our entire team across the Beca Group to deliver mining solutions. We collaborate with our clients and with contractors to understand the requirements of each project, and then assemble a team of engineers, project managers, project services and construction managers best suited to complete the task.

We have previously achieved benefits for our clients such as:

- Site-wide efficiency increase
- Shorter duration shutdowns
- Improved project outcomes
- Energy and water consumption reduction
- Capacity and productivity increase from process design improvements
- Reduction in health, safety and environment incidents
- Cost savings from a sound procurement strategy

## Engineering Services

### CONCEPT & FEASIBILITY STUDIES

- Audits and desktop studies (condition assessments)
- Studies - scoping to bankable feasibility (FEL1, FEL2, FEL3)

### ENGINEERING DESIGN

- Front End Engineering Design (FEED)
- Engineering management
- Detailed design
- Detailed engineering

### PROCUREMENT

- Procurement strategies
- Procurement management

### CONSTRUCTION

- Construction management
- Constructability reviews

### START-UP AND IMPLEMENTATION

- Commissioning support (planning and coordination)
- Operational readiness

### OPERATION / UTILISATION

- Maintenance planning
- Maintenance management
- Asset management support (ISO 55000)
- Workplace improvement
- Site-based Engineering Services Agreements
- Shutdown planning and management

### CLOSURE

- Closure planning and remediation

- Project Management
- Project Controls
- Quality Assurance/Quality Control
- Safety Advisory



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## Engineering Disciplines

Challenges to the mining and metals industry are increasing – from the need to reduce operating costs to developing resources in widespread locations. Creating more certainty for your project and operational outcomes has never been more important.

Whether tackling a plant shutdown in remote Indonesia or debottlenecking an ore feed preparation plant, we can provide international mining and metals knowledge, combined with a can-do approach.

With a strong commitment to build and maintain long-term relationships, we make it our goal to thoroughly understand your business and deliver your project successfully.

Our years of experience in the mining and metals market, combined with a global network of technical specialists, project managers and advisors, means you can take advantage of multi-layered engineering, project management and operations and maintenance services. This includes plant shutdowns, brownfields modification or feasibility studies.



### Mechanical

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- Mobile plant
- Dump stations
- Crushing & screening
- Overland & plant conveyors
- Stacking / reclaiming
- Tankage
- Milling & grinding
- Process equipment & piping
- Load out
- Industrial ventilation
- Pyrometallurgic equipment
- Pressure vessels / boilers



### Structural

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- Heavy industrial process building
- Bins, hoppers, silos, domes & stacks
- Workshops
- Mine site amenities
- Reinforced concrete structures



### Process

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- Process design
- Site wide utilities
- Debottlenecking
- Process simulation



### Civil

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- Foundations
- Roads
- Bridges
- Haul roads
- Dump station retaining walls & abutments
- Stockpile pads
- Rail loops and sidings
- Airstrips
- Ports, jetties & wharves
- Landfills



### Electrical

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- High voltage
- Low voltage
- Network balance & protection settings
- Instrumentation, control & automation



### Environmental

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- Environmental impact assessments
- Audits, licensing & permits
- Environmental monitoring & modelling
- Environmental management plans
- Social assessments & community engagement
- Sustainability & waste management



### Water

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- Site wide water balance & management
- Supply mains & pump stations
- Raw water supply
- Process water treatment
- Stormwater modelling, sediment control & flood studies
- Fresh water diversions & levees
- Erosion and sediment control planning



### Geotechnics

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- Dry cake tailings solutions & slurry tailings storage conversions
- Earth & rock fill dams
- Mine pit geotechnical
- Plant site geotechnical
- Seismic engineering & hazard studies
- Subsidence

## About Beca

Proudly employee-owned, Beca is one of the largest and most diverse engineering and related consultancy services companies in the Asia-Pacific. We assist clients across a wide range of markets including Industrial, Power, Buildings, Public Sector, Transport and Water. As well as numerous engineering consultancy services, we provide holistic project services from concept to commissioning, including project management, cost management, planning, urban design, architecture, land information, valuations and software services.

Beca operates from three key market hubs: New Zealand, Australia and Asia. With more than 3,000 technical and decision support staff, we strive for excellence and client satisfaction, building on our long service record as trusted advisors to many existing clients and delivering value to our new ones.

## Contact Us



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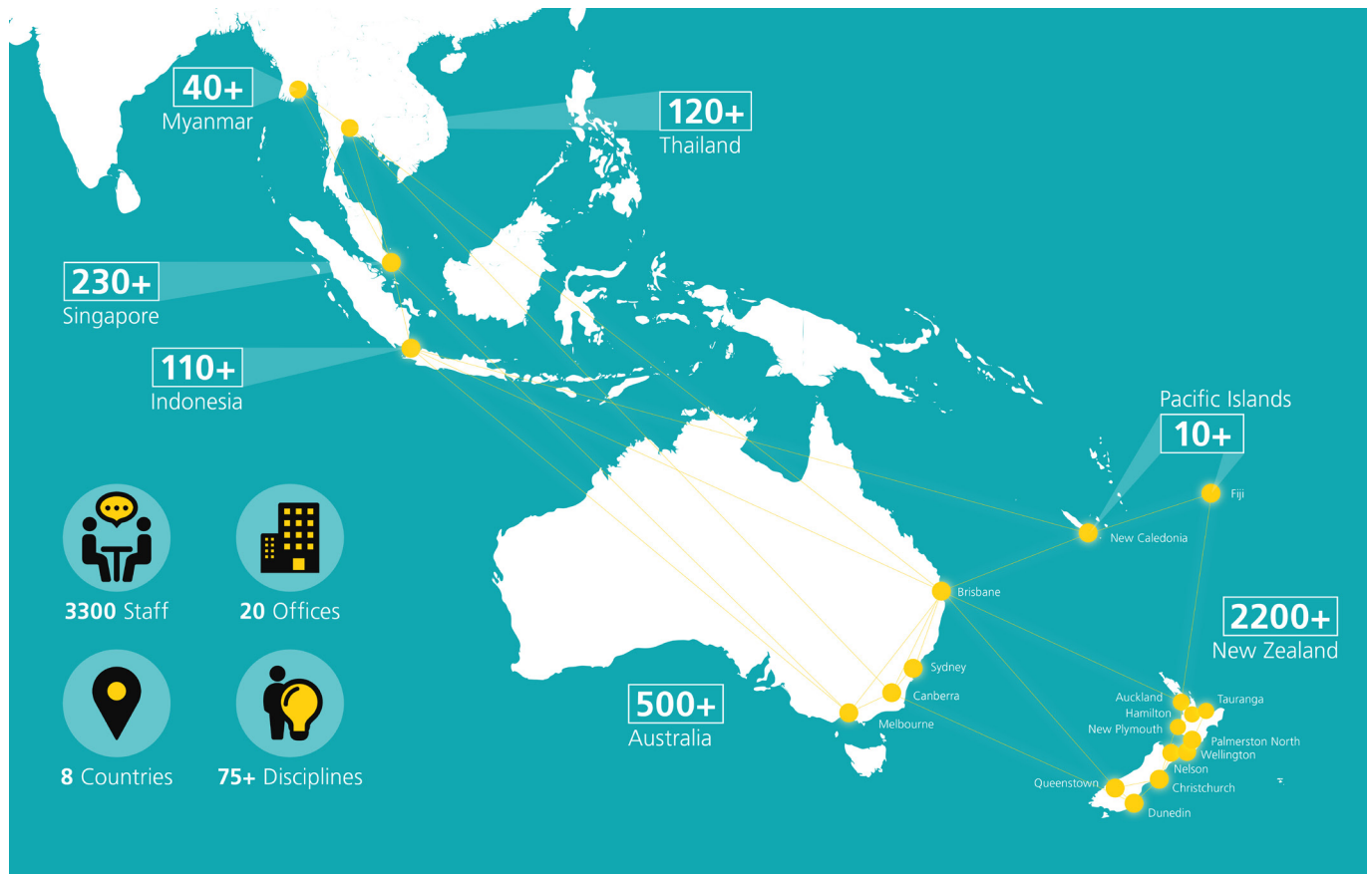


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