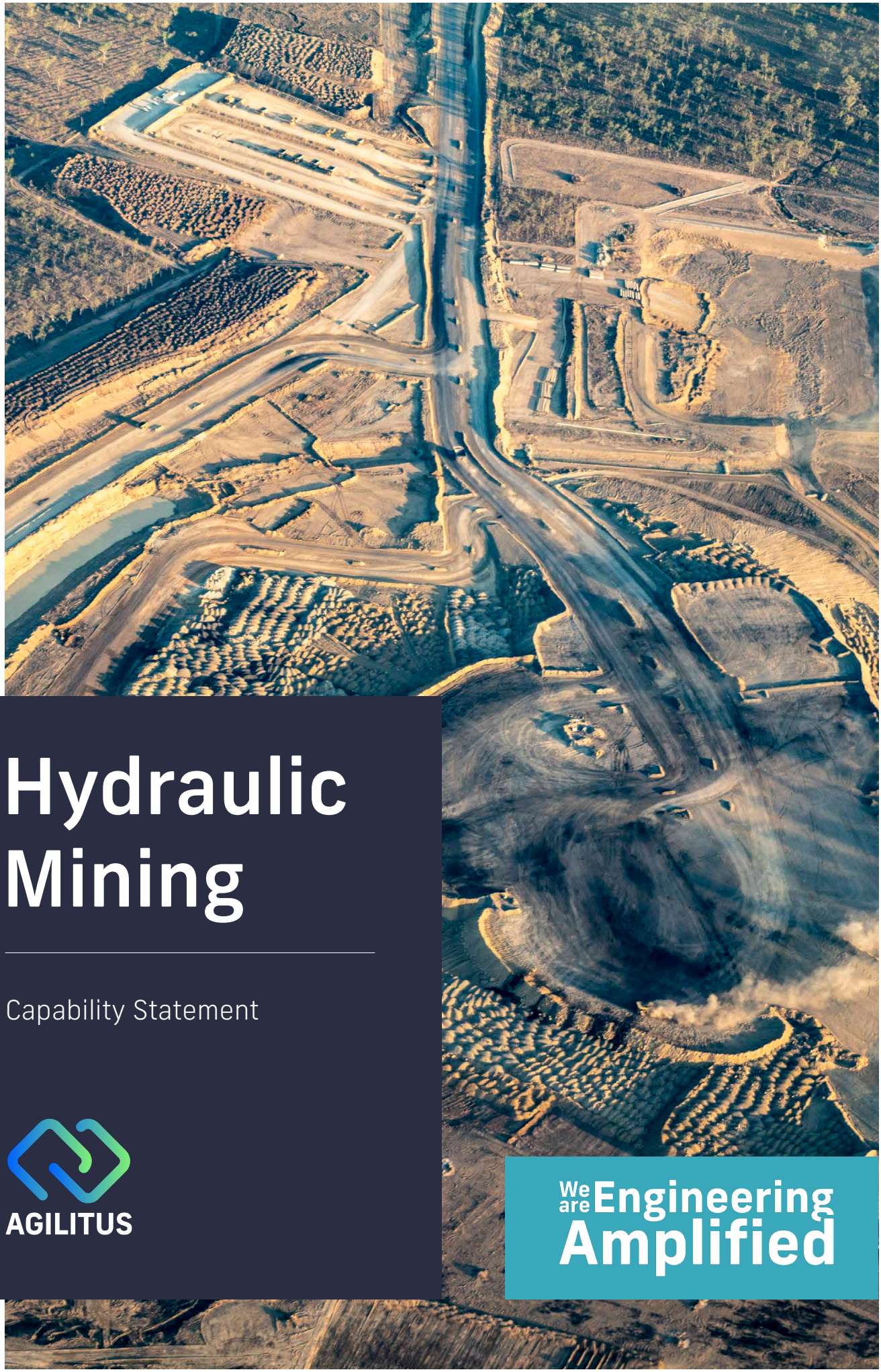

Hydraulic Mining

Capability Statement

AGILITUS

We are Engineering Amplified

agilitus.com

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The First Choice in Engineering

About Agilitus

Since 2017, we have expanded Australia-wide, delivering quality and reliable services in engineering, design, and project management across all disciplines and sectors.

Founded by colleagues Craig Bloxham (Managing Director) and Tony Comerford (Technical Director) after decades in the sector, their ethos of creating a business removed of staid bureaucratic processes still holds true today. It's this uncompromising philosophy that remains the hallmark of the business' true success.

"When you're one of thousands in a public listed company, it gets complicated, and Tony and I wanted to keep things simple. Complexity should not be in the management of the business, just the technical aspects of engineering. We wanted to focus on quality services and building a strong reputation of doing good work; the rest is history," said Craig.

With a vision to be the most sought-after global multidiscipline engineering business, attracting and employing the best people with like-minded values continues to be an important function of the business.

"To make it all work, you've got to have the right culture. If your team enjoy the work and the people they work with, this enthusiasm is hard to resist.

It's our distinction that no one can copy. Our clients value this in the way we work alongside them," said Tony.

> **We're known for our expertise and integrating solutions across all disciplines to deliver a quality product. It's about being consistently predictable, reliable and value for money.**
>
> **Craig Bloxham** - Managing Director

Agilitus at a glance

480+ Workforce
With high performance culture and low turnover

6 Offices
Across Australia, Perth HQ

250+ Years
Cumulative experience of the Management Team

180+
Clients in the Resources, Energy & Infrastructure Sectors

20+ MSA
Agreements across blue-chip customers

ZERO
Lost time to injury in the last 5 years

Multidiscipline services

Agilitus is a multidiscipline engineering, EPCM and ESG consultancy with a skilled, collaborative team delivering innovative solutions to the Resources, Energy & Industrial sectors.

Agilitus offers a range of services to meet any project's most stringent requirements across the entire lifecycle.

The team is focused on providing customised project design, engineering, EPCM, ESG advisory and rehabilitation capabilities with experience in mine site infrastructure and process plants, rail systems, bridges, haul roads, ports and marine, NPI facilities, energy, as well as power supply and distribution.

Agilitus has an in-depth understanding of the project lifecycle. This includes supporting clients through all stages of the project's delivery, from exploration to conceptual design and feasibility studies to detailed design, approvals, construction support and operations, rehabilitation and closure.

- **Asset management**
- **Civil**
- **Coastal**
- **Critical and precious minerals**
- **Decarbonisation**
- **Desalination**
- **Design and technology**
- **Digital consulting**
- **Electrical**
- **Energy**
- **Gold**
- **Ground engineering**
- **Infrastructure**
- **Heavy haul rail**
- **HSEQ solutions**
- **Hydraulic mining**
- **Hydrology and water**
- **Mechanical**
- **Ports and marine**
- **Process**
- **Project delivery services (EPCM)**
- **Pumping and piping**
- **Stakeholder engagement**
- **Structural**
- **Tailings management, mine closures and rehabilitation**

Executive leadership team

Craig Bloxham
Managing Director and Co-founder
30+ years' experience

We develop engineering solutions suitable for our client's purposes, rather than an engineering solution suitable for your business perspective in terms of managing that risk.

Tony Comerford
Technical Director and Co-founder
35+ years' experience

We're in the business of solving engineering challenges but it's more than that; it's the difference we can make for clients, our people and community. It's about delivering on our promises and always exploring better ways of finding solutions.

Tony Daniel
Chief Operations Officer
21+ years' experience

We combine exceptional technical expertise with practical, value-driven solutions for clients. This builds mutual respect and confidence in our solutions, knowing that we explore all avenues for the best fit solution for the project.

Gavin Wearne
Director – Ports and Marine
23+ years' experience

Success is being a trusted advisor for our clients, delivering successful projects, and being a great place to work. We have this here.

Jamie Little
Director – Commercial and Project Delivery
23+ years' experience

We do more than just value adding; we're actually strategically looking at the whole scenario, the big picture to deliver what clients need, not necessarily just what they asked for.

Matt Moreland
Director – Engineering
15+ years' experience

We don't do things just because that's the way they have always been done. We're not wedded to that thought process. We're always asking, what are you trying to achieve and what solution do you need.

Jason Fong
Director – Geotechnical
30+ years' experience

Agilitus has been built on finding innovative solutions, best fit solutions for problems that often a lot of our competitors haven't been able to solve.

Nicolle Jenkins
Director – Marketing and Business Development
30+ years' experience

Returning clients is the true indicator of our success. This represents a true commitment to solving complex problems and optimising solutions. It's who we are.

Our difference

People & culture

We create an environment where people thrive and are empowered, safe, and supported to innovate. **Our team genuinely enjoys the work and the people they work with, and that enthusiasm becomes a powerful force**. Clients feel it. It builds trust, momentum, and confidence.

100% employee owned

When our clients succeed, we succeed. **Being 100% employee-owned means, we're personally invested in delivering outstanding outcomes.** This ownership mindset shows up in the energy we bring, the pride we take, and the results we deliver.

Brownfields experts

We're a leading brownfields specialist, with most of our work delivered in live, operating environments. Our multidisciplined in house team, including highly valued specialist services, provides clients with a true end-to-end capability under one roof.

We don't just work in brownfields; we excel in it.

Best-fit solutions

We design best-fit solutions which integrate seamlessly into existing operations, reduce disruption, and mitigate risk. **Our proven methodologies allow us to move with precision and pace**, applying decades of practical experience to unlock smarter, safer, more cost-efficient outcomes.

Our hydraulic mining and reclamation multidisciplinary leadership team

Matt Brown
Operations Manager – East Coast
25+ years' experience

Matt is a senior engineering and project delivery leader with more than 25 years experience managing a broad range of complex mining and infrastructure projects through various phases of the project life cycle. Combining a strong engineering background with extensive project and commercial management experience, he has led multidisciplinary engineering teams through studies, detailed design and construction delivery projects. His strong focus is always to balance technical solution ambition with risk and project execution strategy.

In hydraulic mining and tailings reprocessing projects, Matt has delivered oversight of engineering and project execution strategy for Agilitus. This has included project risk governance under GISTM and other project specific risk frameworks to ensure clients achieve value through safe, efficient and commercially successful project outcomes.

Nico Klopper
Technical Director - Hydraulic Mining
19+ years' experience

19+ years of global experience in tailings management across the full lifecycle of Tailings Storage Facilities (TSFs), from site investigations and construction management to operations, closure and GISTM implementation, strengthening ESG and risk governance. As a hydraulic mining specialist, Nico has built and led multidisciplinary teams on complex mining operations, from concept and detailed mine design to steady-state operations, to deliver sustained operational performance and minimise risk.

A strong advocate for "waste to value," Nico has led the rehabilitation of legacy tailings facilities, transforming them into safe, productive assets that generate long-term environmental, operational, and economic value.

JJ Gertenbach
Principal Geotechnical Engineer
26+ years' experience

26+ years of experience delivering projects across the mining, civil infrastructure, energy and marine sectors. He has extensive experience in land and marine investigations, geotechnical design, numerical modelling (PLAXIS 2D/3D), foundations, ground improvement, lateral support systems and slope stabilisation.

His project experience includes major mine infrastructure, ports and marine facilities, including jetties, caissons and heavy-duty pavements. JJ has led multidisciplinary teams from concept through construction across Africa, Australia and Canada, and received the Engineers Australia Queensland Innovative Design Award for his ground improvement and temporary works design on the RG Tanna Stockpile 22 tunnel.

Caleb Tang
Lead Mechanical Engineer
15+ years' experience

15+ years of experience across the mining and resources industry. Through his involvement in both greenfield and brownfield projects, Caleb has developed strong capabilities in multidisciplinary project delivery, equipment selection, process plant layout, site execution, and project delivery.

Caleb has extensive technical experience in slurry transportation and mineral processing systems across a range of commodities, including gold, lithium, iron ore, copper, bauxite, graphite, gallium, and salt. His expertise includes the design and optimisation of pumping and piping systems, slurry transport infrastructure, launder systems, and wet processing circuits. He has worked with a broad range of process equipment, including vibrating screens, hydrocyclones, magnetic separation equipment, spiral concentrators, pumps, sumps, tanks, and associated slurry handling systems.

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Fiona Waddell
Lead Mechanical Designer
35+ years' experience

35+ years of experience in the field of materials handling, process drafting, and design. Throughout her career, she has developed a wealth of knowledge and expertise in designing and implementing systems for both greenfield and brownfield processing plants. Her in-depth understanding of the processes involved in materials handling and drafting has enabled her to deliver exceptional results for her clients, ensuring that their plants operate efficiently and effectively.

Fiona is a valuable asset to any team, and her extensive experience makes her an ideal choice for any project in the field of materials handling and process design. Her experience in hydraulic mining includes the Macraes Tailings PFS project, where she contributed key drawing deliverables.

Kieren Tomalin
Mechanical Engineer
8+ years' experience

Kieren is a mechanical engineer with a strong background in project management. He has experience with slurry, water and hydrocarbon pumping and piping, as well as materials handling. Kieren has the skills required to handle intricate technical challenges and has demonstrated his capacity for independent work, assuming responsibilities and motivating teams through effective engineering and project execution. He is a quick learner and can seamlessly navigate evolving technical landscapes.

Within the hydraulic mining setting, Kieren has experience with concept level design, engineering and cost estimation associated with low-pressure and high-pressure water supply to mining canons and in dam slurry extraction and transportation.

Bruce Long
Principal Mechanical Engineer
40+ years' experience

40+ years of design and engineering management experience covering feasibility, design, construction and commissioning of large-scale, complex mineral processing facilities and associated infrastructure. He brings extensive knowledge in materials handling of wet and dry processing systems.

Bruce has managed multidiscipline engineering and design teams ranging from small specialist groups providing technical advisory services and mentoring through to departments of up to 70 staff.

Bruce is highly skilled at managing interfaces between engineering disciplines, construction contractors and client departments to ensure information exchange and design processes achieve project schedules and completion targets.

James Bristow
Lead Electrical Engineer
23+ years' experience

23+ years of experience in electrical and automation engineering. He has extensive knowledge of power systems and arc flash studies including data gathering, conducting, reviewing and managing studies. He is highly skilled in low-voltage power and control design and has proven expertise in auditing, installation supervision and commissioning on commercial, light industrial and heavy industrial sites.

James has significant experience in compiling technical documentation including specifications, scope of works and proposals. He is well versed in coding various brands of PLC, automation, network and electrical equipment, as well as configuring SCADA systems for the water industry.

Aika Ibrahim
Senior Geotechnical Engineer
8+ years' experience

Aika's geotechnical expertise spans across private, local government, and public sector projects. Her strong background in GIS analysis and her active involvement with the Infrastructure Sustainability Council of Australia (ISCA) further highlight her commitment to advancing sustainable infrastructure practices.

Aika has honed her skills in conducting slope stability assessments, geotechnical characterisations of tailings, and consolidation and deformation modeling. Her technical proficiency and dedication to excellence have made her a valuable asset.

Hydraulic mining and tailings reclamation

We deliver integrated, end-to-end hydraulic mining solutions across the full project lifecycle from early-stage evaluation through to operational stability and optimisation. Our approach combines deep technical expertise with multidisciplinary engineering to ensure safe, efficient, and regulator-compliant outcomes aligned with ESG and dam safety requirements.

Project types & applications

- Tailings beneficiation and reprocessing projects
- Recovery of valuable minerals from legacy and inactive TSFs
- Integration with downstream processing plants
- Relocation and rehabilitation of legacy tailings facilities
- Hydraulic mining and transfer to engineered storage facilities
- Closure-driven risk reduction and environmental improvement
- Underground backfill operations
- Hydraulic transport of tailings for paste and slurry backfill systems
- Integration with underground mining cycles and geotechnical requirements
- Open pit tailings transfer and rehandling
- Relocation of tailings into mined-out pits
- Mine closure strategies incorporating in-pit disposal
- Greenfield and brownfield tailings management systems
- New TSF development and expansions
- Conversion between conventional, thickened, and dry stack systems
- Water-constrained or high-rainfall operations
- Optimised hydraulic systems balancing water recovery and supply constraints

Project lifecycle services

01

Early project development

- strategic project identification and evaluation
- scoping studies and options trade-off analysis
- conceptual hydraulic mining strategies
- preliminary risk identification and mitigation planning
- high-level CAPEX and OPEX estimation (class 5–4)

02

Engineering studies

- pre-feasibility (PFS) and feasibility studies (FS)
- process and mine design integration
- hydraulic mining method selection and optimisation
- tailings deposition strategy (conventional and dry stack integration)
- financial modelling inputs and cost estimates (class 4–2)

03

Integrated systems design (water–mining–processing interface)

A core differentiator of our approach is the full integration of hydraulic mining systems with upstream and downstream requirements.

Alignment with upstream water supply systems, including:

- raw water sourcing and supply reliability
- return water circuits and reclaim systems
- water balance modelling and optimisation

Integration with downstream processing requirements, including:

- slurry delivery specifications (density, rheology, variability control)
- plant feed consistency and surge management
- interface management with processing plants and dewatering systems

System-wide optimisation of:

- hydraulic transport efficiency
- pumping systems and pipeline design
- water recovery and recirculation strategies

04 Detailed engineering and design

Mining and planning

- mine design using Deswik CAD
- production scheduling with Deswik.Sched
- 3D sequencing, visualisation, and animation models
- detailed mine development and operational staging plans

Engineering disciplines

- mechanical engineering (slurry transport systems, pumping, dredging/ remote operating mining units)
- piping design and pipeline integrity systems
- electrical engineering and power supply systems
- instrumentation, automation, and control systems (I&C)
- civil engineering (earthworks, water management systems)
- structural engineering

05 Geotechnical, hydrology and inundation studies

Geotechnical material characterisation and verification, including:

- laboratory and field validation of tailings and in-situ materials
- strength, density, and consolidation behaviour assessment
- integration of material properties into mine design and deposition modelling

Geotechnical design integration, including:

- stability assessments for slopes and deposition areas
- design appraisals aligned with dam safety frameworks (ANCOLD / GISTM)

Hydrology studies, including:

- catchment hydrology and water balance modelling
- storm event analysis and design criteria development

Flood and inundation studies, including:

- extreme event modelling (PMF, ARI events)
- flood routing and inundation mapping
- infrastructure resilience and flooding risk mitigation

06 Project delivery (EPC / EPCM)

- full EPC and EPCM delivery capability
- procurement and vendor management
- contractor management and construction supervision
- quality control and assurance systems

07 Mobilisation and site establishment

- hydraulic mining fleet selection and deployment
- site infrastructure establishment
- workforce mobilisation and readiness planning
- transition from construction into operations

08 Commissioning and operations readiness

- commissioning management and execution
- performance verification and ramp-up support
- development of:
  - performance-based SOPs
  - TARPs (Trigger Action Response Plans)
  - operations manuals
  - Safe Work Instructions (SWIs)
- competency training programs and workforce capability development

09 Operations support and optimisation

- ramp-up to stable operations
- performance monitoring and optimisation
- continuous improvement initiatives
- safety and production performance enhancement

Independent advisory and assurance

- peer reviews (designs, studies, and operations)
- embedded owner's team support
- technical and financial due diligence
- risk assessment facilitation:
  - HAZID, HAZOP, bow-tie analysis

Operational integrity and compliance

- performance and safety audits of existing operations
- tailings and water management compliance reviews
- alignment with:
  - regulatory frameworks
  - dam safety requirements
  - ESG standards and governance

Permitting and approvals support

- EPA approvals and environmental permitting
- building consent applications
- regulatory documentation and compliance reporting
- stakeholder engagement management, support and implementation

You're in good company

We work alongside many notable companies across Australia.

Technical excellence

We are passionate about leveraging our technical ingenuity to solve complex problems.

Technical excellence is the bedrock of our business. It drives our people and propels the outcomes we provide for clients, communities, asset owners and operators, and financiers.

Our dedicated professionals and subject matter experts focus on understanding our clients' business objectives, their desired project outcomes, as well as the latest industry research for the sectors in which we operate.

A premium client experience

The success of our project work depends on leveraging the best expertise of our people. That's why we allocate the most qualified professionals to help realise our clients' development vision and bring their projects to life.

Our work is underpinned by strong engineering design principles, industry-leading technology and pragmatic advice to deliver exceptional outcomes, every time.

This approach provides the following benefits:

- Ease of understanding of regulatory frameworks
- Efficient navigation through the development approvals process
- Protection and preservation of our cultural heritage, the environment and waterways
- Healthy, transparent and trusted relationships are established with stakeholder groups
- Respectful liaison with Traditional Owners is undertaken
- Fair and equitable outcomes are achieved for First Nations' communities
- Project knowledge is retained, including lessons learned
- Innovation is embraced and deployed.

The quality and excellence of our world and ability to deliver the best technical and cost-effective solutions for our clients is guided by our Technical Leadership Team.

Technical Leadership Team

Led by the most senior members of our business, this team facilitates learning and knowledge transfer, professional collaboration and mentorship to drive continuous excellence in our technical capabilities. It also encourages our people to perform to high technical standards and rewards staff for incorporating innovation into projects.

Our dedicated professionals and subject matter experts focus on understanding our clients' business objectives, their desired project outcomes, as well as the latest industry research for the sectors in which we operate.

Safety is at the heart of our business

Our diverse and culturally aware teams embrace safe work practices that are environmentally sound.

Safety is integral to everything we do at Agilitus. We care about our people, clients, and the communities in which we operate, and strive for zero harm in everything we do.

Health, safety and quality are embedded in our work practices, while heritage and sustainability are considered throughout the entire project lifecycle.

We recognise the importance of continuously reviewing safety in design issues at all stages of a project, from investigation, design, construction, operation (including maintenance), closure and rehabilitation.

Exceeding regulatory obligations, we leverage a formalised Health, Safety, Environment and Quality Management framework that allows us to analyse and implement practical measures to mitigate risks.

Leadership

- Understanding of client needs
- Technical Leadership Team governance
- Strong chartered presence
- Adherence to technical standards & regulatory instruments
- Committed to technical excellence
- Striving for low-carbon impacts

Systems

- ISO Accredited Quality Management System (QMS)
- Design assurance
- Engineering verification procedures
- Safety in Design
- Net Zero in Design
- Risk mitigation & management
- Project governance (action tracking, monitoring, performance and auditing)
- Continuous improvement (lessons learnt)

Characteristics

- Client centric
- Risk adverse
- Reliable
- Accountable
- Innovative
- Simplification
- Community and culture

Our vision is to be the most sought-after global multidiscipline engineering business; attracting and employing the best people with like-minded values while working on projects that make a difference to our communities.

We are Engineering Amplified

Let's talk about your project

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