



Ricardo with E3 Advisory
**Delivering value across the
water infrastructure
investment lifecycle**

Australia is facing a significant water infrastructure challenge

Significantly increased water infrastructure investment is needed to manage pressures of climate change, aging systems, rapid growth and increasing customer, regulatory and community expectations. Planning and delivering this strategically and efficiently will have a major impact on Australian cities and towns over several decades.



Drivers

A range of drivers are demanding more from water infrastructure and services:

- Aging assets requiring replacement
- Rapid growth in areas with higher costs of service
- Major climate, environment and sustainability challenges
- Evolving customer and community expectations
- Higher regulatory expectations and obligations (e.g. Net Zero, Health based targets, PFAS)



Challenges

It is increasingly difficult to navigate a tight economic environment while needing to increase investment to keep pace.

Complex integrated planning

Major uptick in capital expenditure

Flat real prices no longer possible

Higher interest costs & debt levels

Construction costs spiralling

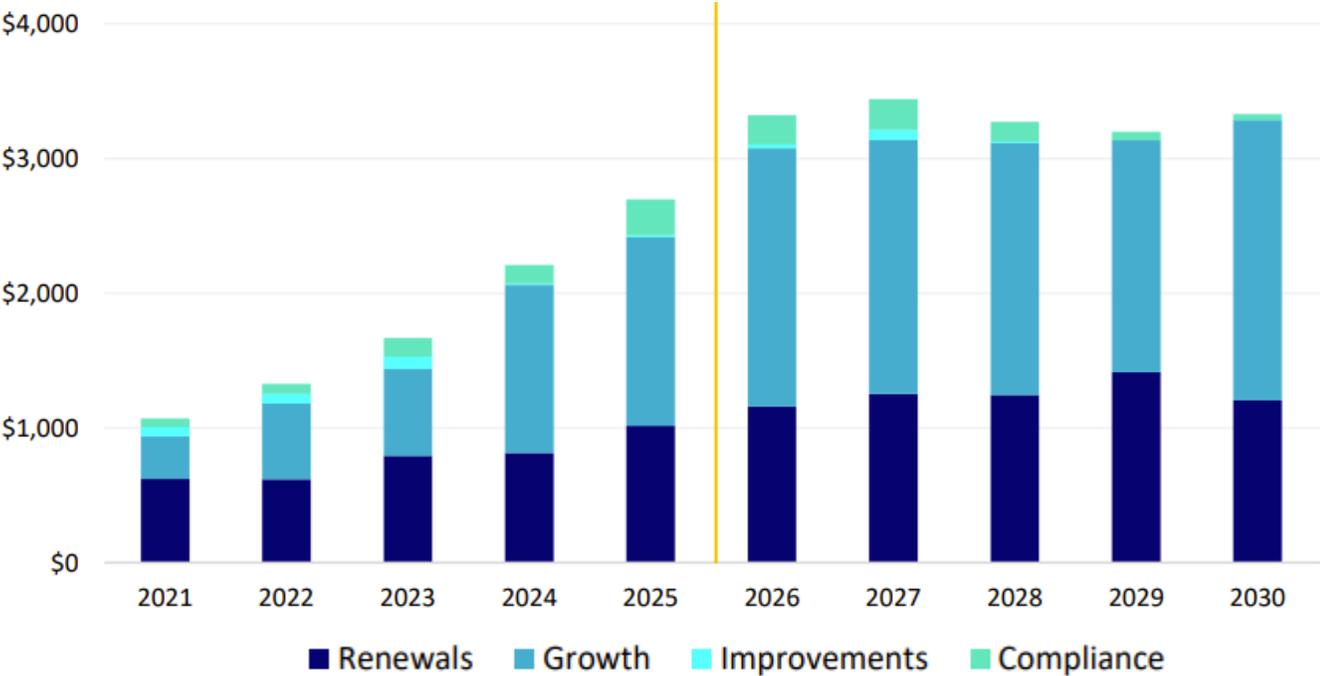
Increased delivery capability needs

Industry examples highlight the magnitude of the challenge ahead

Many water utilities across Australia are coming to grips with the scale of the challenge. Some have had major increases in capital expenditure approved by regulators. Others are in the process of seeking approval, including for significant price increases.

Example: Sydney Water's total capex by driver (\$millions)

Current and upcoming price period – from \$8.9bn up to \$16.4bn



Source: Sydney Water [Price Proposal](#)



The last few years have tested our systems like never before... Our assets require significant renewal to meet the demands of today and tomorrow.

— Sydney Water Price Proposal 2025-30

There are major implications for governments, regulators and utilities

Delivering essential services will require more investment. But managing the affordability challenge requires reconsidering fundamental questions:

01

How do we ensure regulation and policy balance current and future needs through supporting optimal investment in water infrastructure?

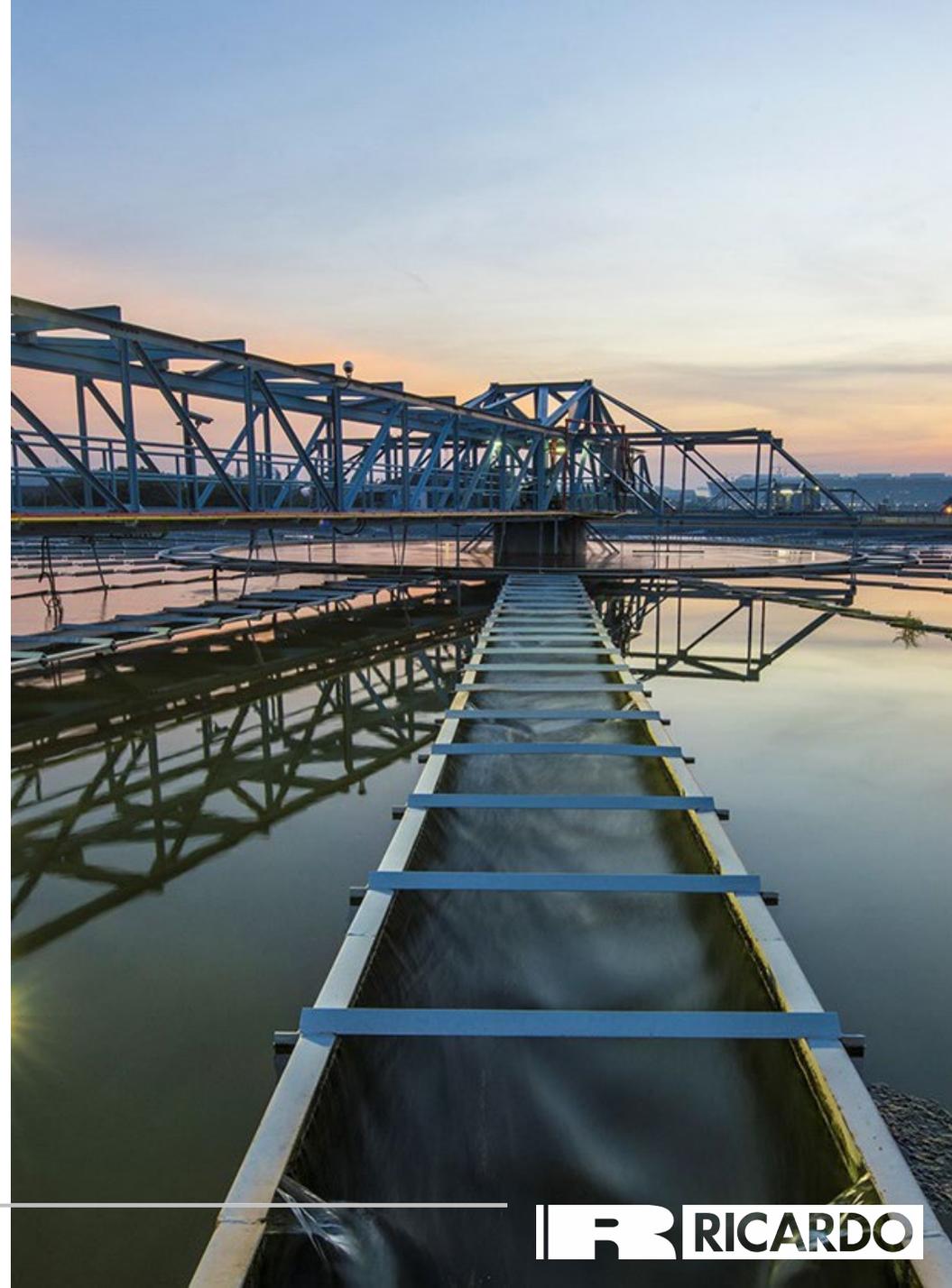
02

How do utilities plan capital investments in water infrastructure that deliver the most value?

03

How do utilities deliver increased investment programs and projects efficiently and effectively?

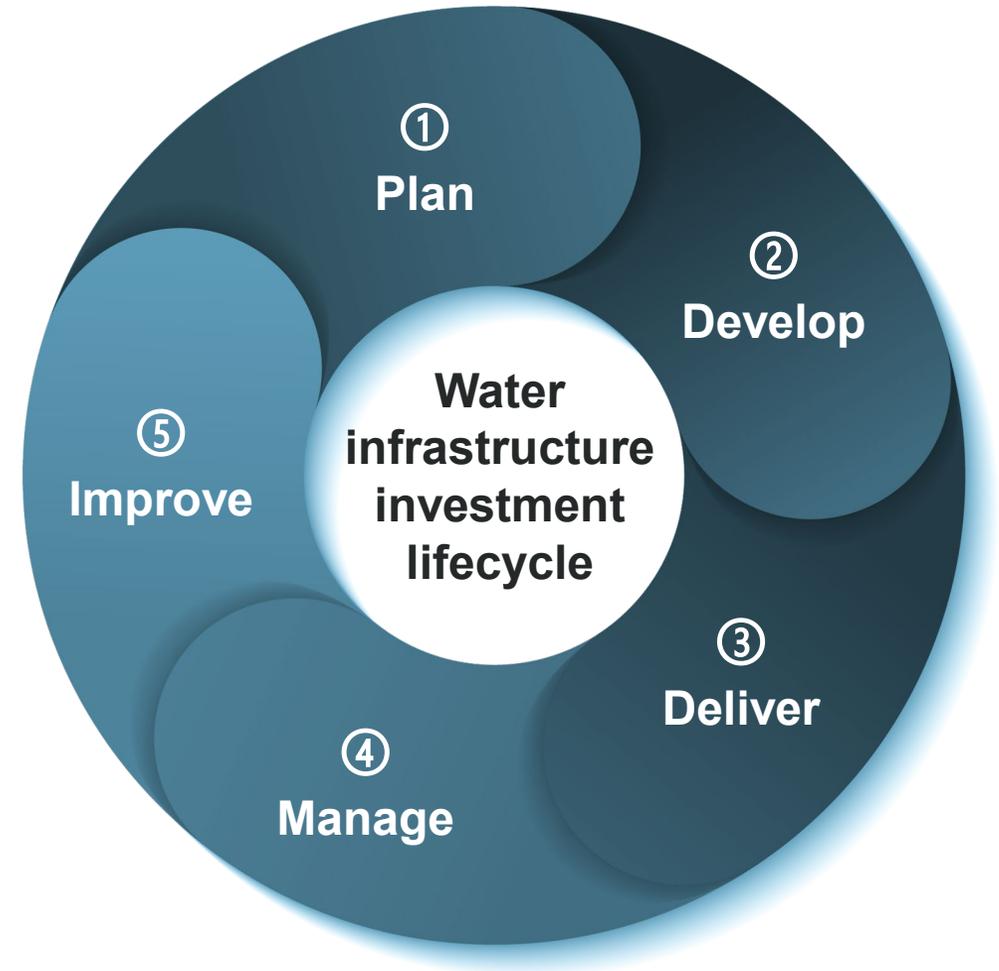
Despite the higher stakes and increased complexity, the goal remains the same: **to deliver value for customers and the community by ensuring the right infrastructure options are planned, developed, delivered and managed in the right way.**



Ricardo supports the water sector tackle these challenges across the infrastructure investment life cycle

Ricardo provides specialist **strategy and economics, development and delivery execution, and commercial advisory services** across the water and wastewater infrastructure investment lifecycle.

With over 100 specialist advisors in Australia, **we help water utilities and governments deliver valued infrastructure and services** to customers and the community.



Why work with Ricardo?



Proven industry leadership

Decades of experience addressing critical water infrastructure challenges, helping utilities and governments navigate complex investment decisions.



Independent and objective advice

We focus on finding the right solutions, not pushing predetermined outcomes or chasing downstream design work..



End-to-end insights

Real-world project delivery experience strengthens our business cases, policy advice, and funding strategies.



Connecting policy to delivery

We bridge the gap between high-level planning and practical execution, ensuring alignment across all stages.



Advisory and commercial focus

Our approach is strategic and outcomes-driven, avoiding overly technical solutions in favor of actionable, value-focused recommendations.



Collaborative and adaptable

We work flexibly with clients, adjusting to evolving needs while maintaining clarity and momentum.

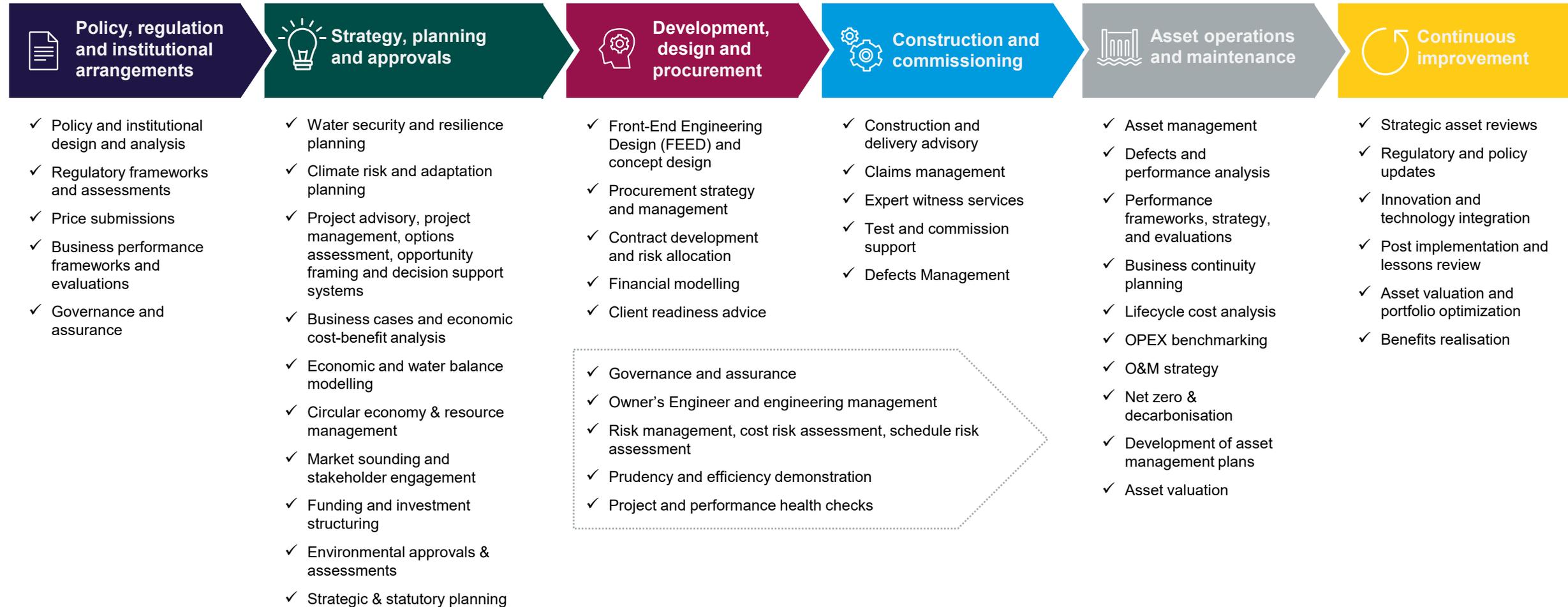


Global knowledge, local impact

Access to international best practices and innovation, applied to Australian challenges for sustainable, future-ready solutions. Over 100 years of expertise and a global team of 3,000+ to deliver sustainable, cross-sector solutions that address the challenges of climate change to help achieve a safe and sustainable world.

Our advisory solutions across the water investment lifecycle

Ricardo and E3 Advisory help our clients navigate every stage of the infrastructure lifecycle. From policy to operations, we cut through complexity—securing funding, optimising investments, and driving smarter, faster, and more sustainable decisions.



✓ Governance and assurance
 ✓ Owner's Engineer and engineering management
 ✓ Risk management, cost risk assessment, schedule risk assessment
 ✓ Prudency and efficiency demonstration
 ✓ Project and performance health checks

Ricardo and E3 have drawn on decades of experience to shape critical projects



Sydney Desalination Plant Expansion, 2022–24

E3 Advisory provided strategic leadership and commercial advice to the Sydney Desalination Plant (SDP) in preparation for its planned expansion from 250 to 500 megalitres per day. Acting as Project Director and leading key functions including transaction management, O&M negotiation, and project planning, E3 established robust governance structures and mobilised the project team. E3 developed the overarching expansion strategy, led preparation and submission of the Preliminary Expansion Plan to the State, and supported negotiations with the NSW Government, ensuring SDP's readiness for the next stage of delivery.



Sydney Water's 2025 pricing proposal to IPART, 2024 -25

Ricardo provided strategic advice and various other services to Sydney Water while it prepared for its 2025 pricing proposal to IPART, including establishing governance and process for managing development of the submission, and advice to executives and Board on elements of the proposal. Ricardo also reviewed Sydney Water's draft 2025 pricing proposal for accuracy, completeness and alignment with IPART's new 3Cs framework, providing assurance to the IPART executive and Board on the quality of the submission.



Northern Water Supply Project, 2022 - Present

Ricardo supported the South Australian Government on the Northern Water Supply Project, initially delivering the Preliminary Business Case in 2022. Ricardo then transitioned to the role of client-side Technical Advisor for the Detailed Business Case and early delivery phases. The project includes a 260 ML/day desalination plant powered by green energy and a 650 km trunk pipeline, providing a sustainable alternative to River Murray and Great Artesian Basin water sources. Ricardo's involvement is helping to unlock investment in mining and green industries in northern South Australia.



Development of Lower Murray Water's Rural Masterplan, 2025 - Present

Ricardo was appointed by Lower Murray Water (LMW) to lead the development of its Rural Masterplan 2050. This strategic initiative involves reviewing and planning the future of LMW's rural and irrigation services across the region from Nyah to the South Australian border. Ricardo's role is pivotal in preparing LMW to navigate future challenges and opportunities in water management, ensuring sustainable and efficient services for the region.

Contact us

Ready to get the answers you need?
Connect with one of our experts today.



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About Ricardo with E3 Advisory



Ricardo and E3 Advisory help our clients make better decisions. Together we cut through complexity, accelerate investment, and future-proof water infrastructure. We drive smarter policies and infrastructure solutions, streamline approvals, and optimise procurement. Our expertise ensures projects stay on track, assets perform at their best, and innovation leads to long-term resilience. With a data-driven, sustainability-focused approach, we deliver cost-effective solutions that are practical, progressive, and built for the future.

About Us



Ricardo is a global engineering and environmental consultancy dedicated to solving the world's most pressing sustainability challenges. With a strong focus on water, energy, and climate resilience, Ricardo provides cutting-edge solutions in policy advisory, regulatory compliance, digital transformation, and asset management. Their mission is to drive innovation and create a safe and sustainable future.



E3 Advisory is a leading infrastructure advisory firm specialising in strategy, commercial advisory, and project delivery. With deep expertise in procurement, risk management, and investment strategy, E3 helps clients navigate complex infrastructure challenges and optimize project outcomes. Their hands-on approach ensures smarter, more efficient, and commercially sound decisions across the entire project lifecycle.