Smart mining, exploration and extraction

Connecting people and places

Take a look at our STRATEGIC VISUALISATION TOOL to learn about Queensland's scientific capability in new industries. The tool links with the Queensland Science Capability Directory that provides information on all the research centres in the state. You can also connect with our sector leads.

Visit www.qld.gov.au/ScienceEmergingIndustries

"In Queensland we have the depth of research expertise to address the global challenges facing the sector across all aspects of the mining life cycle."

Professor Neville Plint
The University of Queensland

Queensland's competitive advantage

Geographically close to the world's largest export markets, with strong existing connections in place, Queensland has a long and successful history in the innovation of the mining industry. There are approximately 800 mining equipment, technology and service (METS) companies operating in the state.

Queensland's capital city, Brisbane, is ranked number two in the world for mining startup cities. The state has a highly trained workforce, with 92 per cent of all tertiary mining courses ranked well above world standard. We are world-leading with our innovative natural gas operations, have state-of-the-art mine safety and remediation practices and a proven history of sustainable exploration and mining practices.

R&D capabilities

Queensland's research cohort is driving global progress through innovative use of artificial intelligence, big data analytics and machine learning.

Expertise in these areas are lowering costs and improving efficiencies in exploration, mining and extraction.

Queensland's mining researchers work closely with environmental experts to reduce the environmental footprint of mining operations, finding novel ways to make remediation processes more effective and easier to implement.

We are looking ahead, building the infrastructure and expertise in extracting critical minerals to provide the materials for next generation batteries, motors and other technology devices of the future.

Queensland has managed to develop natural gas, a key component to help meet the United Nations Sustainable Development Goals, from an unconventional resource directly to Liquid Natural Gas, excelling in its extraction and treatment.

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Queensland Government

Smart mining, exploration and extraction

Queensland—a great place to invest and do business

A$59 billion
export revenue to year ending July 2020

800 METS
companies operating in the state

A$300 million
in R&D funding for Queensland minerals in 2016

A$640 million
exploration expenditure (2019–2020)

Case study

Liquefied Natural Gas—a world-first innovation industry

Liquefied Natural Gas (LNG) is a magnificent success story in Queensland. Development drilling to first export took just six years in a challenging, environmentally sensitive area. The methods developed exemplify our engineering and production technologies, working with complex sub-surface, geo-mechanical and predictive flow modelling.

Investments of A$70 billion and ongoing investment of A$2 billion per annum showcase the strength of this world-class LNG sector in Queensland. The unique circumstances challenged researchers to develop methods that allow the co-existence of the gas production with agriculture and a pristine environment, including novel water treatment processes and integrated environmental monitoring. State-of-the-art LNG production lines have been established throughout Queensland in collaboration with local communities, providing both environmental and economical benefits to regions.

For more information about Queensland's science and innovation capabilities, please visit:

Visualisation tool:
www.qld.gov.au/ScienceEmergingIndustries

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