Advanced manufacturing, advanced materials and biomanufacturing

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

"Our state is teeming with the intellect and initiative required to design and manufacture high quality products."

Shay Chalmers
Strategic Engineering Australia

Queensland's competitive advantage

Queensland's advanced manufacturing industry is recognised for applying technology to solve real-world problems. The state is recognised by the World Economic Forum as an advanced manufacturing hub.

Geographically close to the world's fastest growing markets in the Asia-Pacific, the industry can rely on a highly-skilled workforce, a solid infrastructure base and a world-leading network of research and development (R&D) institutions.

A unique mix of climates provides the right environment to competitively produce some of the world's most energy dense and productive biomass and fibres.

Queensland's tertiary institutions provide the sector with a workforce with sought after STEM skills. The network of roads, airports, rail, and seaports provides convenient freight networks across the state and to the world.

These benefits are underlined by a highly supportive government policy, including tax incentives for R&D and co-investment for new ventures.

R&D capabilities

Queensland's ability to translate R&D is showcased by the fast transitioning manufacturing sector, with over 57 per cent of firms having transitioned more than half of their production line to advanced manufacturing practices. This rapidly growing sector is benefitting from strong existing networks of collaborative projects between industry and research institutions.

Local industry has a huge variety of forward-thinking solutions to pick from, with more than 70 institutes across the state researching modern advanced manufacturing and biomanufacturing techniques.

Our R&D capability including novel approaches to robotics and automation, industry 4.0, and creating new and strong materials from locally sourced feedstock which underpins Queensland's status as a hub for advanced manufacturing.

Working together with First Nations peoples, the biomanufacturing industry uses biological knowledge of over 50,000 years to create materials and solutions not possible anywhere else.

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Queensland Government

Advanced manufacturing, advanced materials and biomanufacturing

Queensland—a great place to invest and do business

A$15.5 billion export revenue in 2018

A$21 billion

to Queensland's economy annually

16,600 manufacturing businesses

A$361 million

private manufacturing R&D investment annually

Case study

The Advanced Robotics for Manufacturing Hub

In July 2019, the Queensland Government invested A$7.71 million over four years to establish Australia's first Advanced Robotics for Manufacturing (ARM) Hub to create and support more jobs.

The A$18 million ARM Hub is a partnership between the Queensland Government, Queensland University of Technology (QUT), global leading-edge company Urban Art Projects (UAP), CSIRO and the Innovative Manufacturing CRC.

The ARM Hub engages with industry directly through their engagement and awareness program as well as working with individual manufacturers to develop commercial solutions and digital transformation projects.

The most likely economic benefit from the adoption of robotics and automation in Queensland over the next 10 years is 1.5 per cent added growth, a A$77.2 billion boost to gross state product, and the creation of 725,810 new jobs.

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

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

Email:
qldscience@qld.gov.au