

CITATION

Award of Doctor of Engineering *honoris causa*

Dr Russ Morrison AM

Chancellor

Dr Russ Morrison is a brilliant engineer who has combined his passions for innovation, entrepreneurship, collaboration and mentoring to achieve strong outcomes for industry, communities and the environment in Australia and internationally.

Studying at The University of Queensland in the 1960s, he earned a Bachelor of Engineering in Mechanical Engineering with 1st Class Honours, a Master of Engineering Science by research, and a PhD in Mechanical Engineering.

He then teamed up with two fellow UQ graduates to found an engineering consultancy now known as BMT WBM. Today the company employs approximately 200 people and has offices in four Australian states and the United States of America, Canada, the United Kingdom and Papua New Guinea. It ranked 10th on the *BRW* 50 Most Innovative Companies list in 2013.

Dr Morrison's interests and expertise are polymathic, and his contributions fan across an expanse of areas including resource industry safety and productivity, marine and aquatic ecosystems, and hypersonic flight.

An exemplar for research-enhanced industry success, he has for decades collaborated with institutions of the calibre of California Institute of Technology (Caltech) and UQ.

A Caltech shock-tunnel which he helped design, construct and bring into service has been utilised by NASA and other organisations, and by former Caltech graduate students who are now leaders in research, academe and industry.

Similar facilities were developed through collaboration with UQ's Centre for Hypersonics, and were intrinsic to milestones including the world's first successful flight test of a supersonic air-breathing scramjet engine.

Dr Morrison's flair for problem-solving has hatched innovations including a computer program for simulating river system flooding, robots that enhance safety at bulk coal handling terminals, and world-first improvements to the workhorse of open-cut coalmines – that is, the large walking dragline. The Morrison team's dragline innovations remain widely used in Australia, South Africa and North America, 40 years after they originated.

Throughout his career Dr Morrison has generously maintained links with UQ, offering industry insights and professional development opportunities to students and staff, and giving career starts to hundreds of graduates.

Many young engineers have fulfilled their promise after meeting his challenge to break with conventional thinking in order to solve gnarly industry problems.

He is a long-standing contributor to the first-year engineering lecture program and also has mentored and employed a number of current and past UQ academics. He chairs the Industry Advisory Board of UQ's School of Mechanical and Mining Engineering.

In-demand as an expert witness and arbitrator, Dr Morrison has assisted investigations of major mining industry accidents.

His many accolades include a Centenary Medal, Engineers Australia's prestigious *AGM Mitchell Medal*, and a Member of the Order of Australia for service to engineering education and the commercialisation and export of Australian technology.

Chancellor, I present to you Dr Russ Morrison, Member of the Order of Australia, Bachelor of Engineering with First Class Honours, Master of Engineering Science, Doctor of Philosophy of this University, Fellow of the Australian Academy of Technological Science and Engineering and Fellow of the Institution of Engineers Australia for the award of Doctor of Engineering *honoris causa*, bestowed by the Senate of The University of Queensland.