UNIVERSITY of TASMANIA

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Chiefs of Staff, News Directors

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Research centre set to increase efficiencies of Australian mines

A new research hub based at the University of Tasmania is set to revolutionise mining and exploration practices, delivering significant benefits to the Australian economy and regional and rural communities.

The hub, launched today in Hobart, is named Transforming the Mining Value Chain (TMVC) and forms part of the Australian Research Council's (ARC) Industrial Transformation Research Program (ITRP).

TMVC Director Professor David Cooke said the hub would lead to significant improvements in discoveries, efficiencies, output and profitability in the Australian mining sector.

"The TMVC hub will be of great benefit to the minerals industry through advanced mineral characterisation methods, and innovative technologies for their implementation," Professor Cooke said.

"The ability to apply these processes much earlier in the mining value chain will enhance decision making and maximise new discoveries, productivity and profitability at Australian mine sites."

The work will examine a wide array of activities from exploration, discovery, ore deposit characterisation, and environmental assessment, through to mining, ore processing and waste disposal. The main objective is to improve efficiencies within this value chain, focussing on areas that will have a marked impact on increasing the value of Australia's mineral resources.

Acting Vice-Chancellor Professor Mike Calford said the TMVC was the third ARC Industrial Transformation Research Hub within the University of Tasmania, following hubs focusing on rock lobster production and food innovation using sensing technology.

"The University of Tasmania sits at the forefront of efforts to deliver collaborative, industry focused research and results," Professor Calford said.

“This hub, like our others, will provide a critical mass of talent, expertise and experience that will be focused on providing solutions for real life industrial applications.

“It will help our minerals industry to remain globally competitive by taking advantage of technological advances, and becoming more efficient and targeted in its operations.”

One of the innovations to be developed within TMVC will be new geological tools that will enable mining companies to predict the locations of ore bodies with far greater efficiency.

It will also develop automated textural and mineralogical logging tools that will enable rapid interpretation and modelling of exploration data from hyperspectral data, which will allow for better mine design and implementation.

“In simple terms, this will provide explorers with the capacity to detect an ore body far earlier in the exploration cycle, allowing them to make informed decisions on how to proceed, or even if they should proceed, in a particular area,” Professor Cooke said.

“This can provide huge savings both in terms of time and money.”

TMVC will be housed within the University’s School of Physical Sciences, with the ARC Centre of Excellence in Ore Deposits (CODES) and the Human Interface Technology Laboratory Australia (HITLab AU) playing key roles.

The external collaborating partners are BHP Billiton and Newcrest Mining, plus the service company Corescan. Other collaborators affiliated to the initiative include Laurin Technic, National Information Communications Technology Australia (NICTA), Aachen University (Germany), plus a consortium of national and international companies co-ordinated by AMIRA International.

The ARC has allocated nearly $4 million over the five-year life of TMVC, with a further $4 million of matching funds being pledged by participants within the minerals industry.

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