

Investigating how to create a FAIR, commercially sensitive data collection.

The Australian Research Council (ARC) Industrial Training Transformation Centre for Transforming Maintenance through Data Science (CTMDS) plans to introduce timely and cost-efficient maintenance scheduling by developing data-intensive mathematical and computational algorithms for improving asset management and a capability for fault prediction.

This project will investigate how to create a mining industry machine and vehicle maintenance data collection that meets the commercial sensitivity needs of industry partners, as well as being Findable, Accessable, Interoperable and Reusable (FAIR). This will enable the development of new methods and tools to improve productivity and asset reliability for the industry.

Start date 3 June 2019

Expected completion date 21 October 2019

Investment by ARDC \$49,999

Co-investment partners

<u>CSIRO</u>

University of Western Australia

Curtin University

Lead node





1. FAIR data enablement report

A report into the processes and technology used by the CTMDS to make the data collection FAIR.

3. Completion of project

Project outcomes will be presented at the ARDC Data & Services Summit in October 2019.

2. FAIR machine maintenance data collection

Mining industry machine and vehicle maintenance metadata will be made discoverable, and where risk and sensitivity allow, accessible and reusable.

Core features



FAIR industry data



Reusable processes

Working towards making data from industry FAIR to facilitate research and deliver economic, environmental, and worker health benefits. Learnings and outcomes will be shared to benefit other research-industry collaborations.

Who is this project for?

- Peak bodies
- Research organisations
- Industry
- Government (state and commonwealth)

What does this project enable?

A FAIR machine maintenance data collection will enable researchers to develop new methods and tools to transform the maintenance management process, increasing both productivity and profitability through automation of maintenance stages. By optimising maintenance schedules and improving the ability to predict faults, this research can help to increase longevity of equipment, reduce environmental impacts, and overall provide a safer work environment for mine site maintenance workers.



Handy resources

- FAIR assessment [PDF 191KB]
- Final Report [PDF 93KB]
- Presentation [PDF 155KB]
- <u>Centre for Transforming Maintenance through Data Science</u>



