



SUPPLIER INNOVATION PROGRAM

Our challenge - shared opportunity



Agenda



Welcome

Martin Collard, Chief Collaboration Officer, Austmine

Austmine and BHP Strategic Partnership

Katrina O'Brien, Head of Innovation & Commercial Alliances, BHP

BHP Supplier Innovation Program

Camila Cáceres & Kester Hubbard, Supply Innovation, BHP

FY22 Challenge launch

Kester Hubbard, Supply Innovation, BHP

Audience Q&A

Next Steps

Martin Collard, Chief Collaboration Officer, Austmine



BHP Austmine Strategic Partnership



Purpose:

- Build relationships between the Australian METS sector and BHP at multiple levels – Asset, Operational, Functional
- Increase adoption of technological innovations to address issues and create improvements at BHP's operations
- Provide funded, real-world test bed for innovations to be piloted before full-scale commercialisation
- Ultimately, generate social value by building trust, providing opportunities and making it easier to do business with BHP
- Global – Fatality Elimination Program, Charge On Innovation Challenge
- Minerals Australia & Minerals America – Supplier Innovation Programs

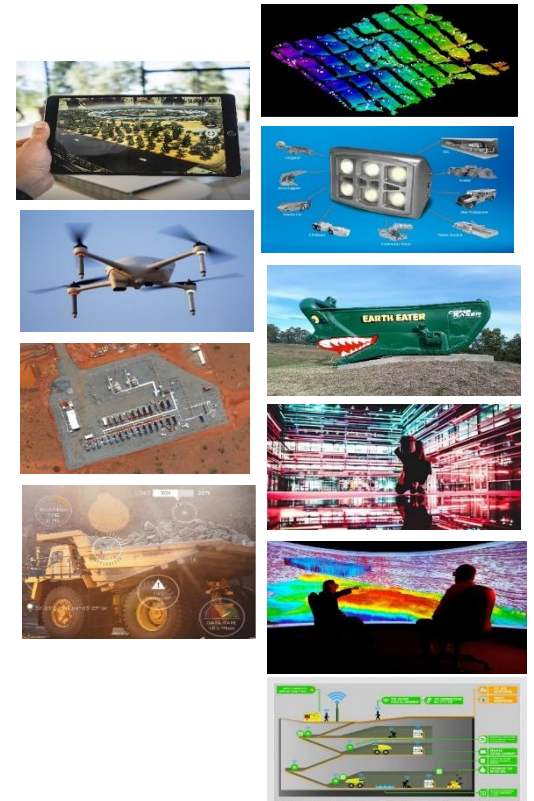
BHP Supplier Innovation Program

How it works

BHP Challenges



Australian METS



'Raptor' Filter Press Maintainer, BMA Caval Ridge

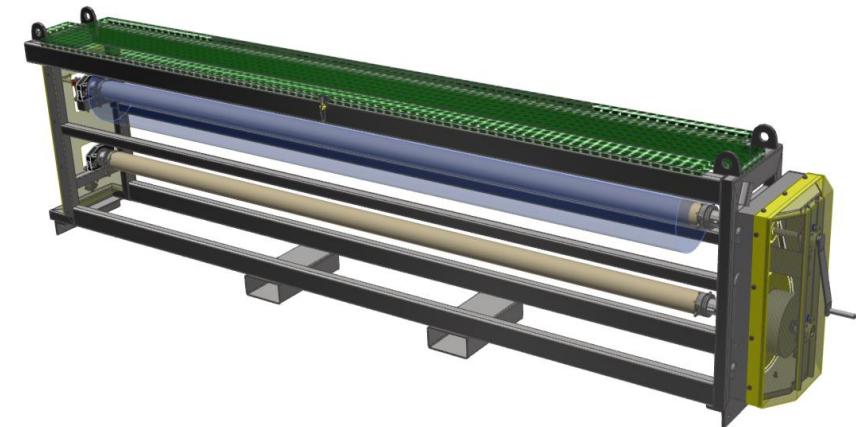
Jord International were engaged to develop and pilot the '*Raptor*' self-contained belt cartridge unit capable of removing old belt and installing new belt, without manual handling.

Value delivery:

Safety - Eliminate entanglement risk by removing maintainers from line of fire

Productivity - Reduce belt replacement time by 50% (~3 hours)

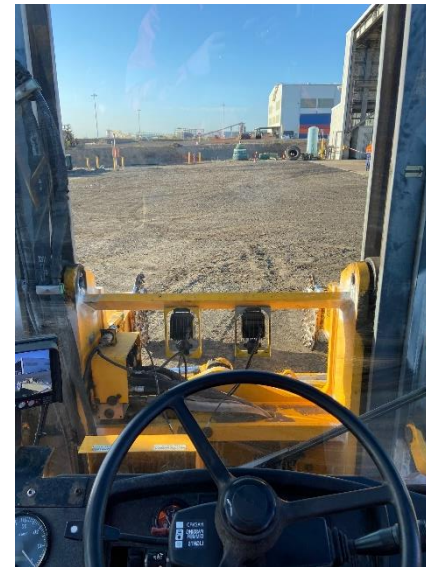
Social value – New opportunity for Jord to introduce the *Raptor* to more BMA mines and other mining companies.



FY22 Challenge



Tyre Handling Line of Fire Hazard Reduction



BMA Caval Ridge Mine

BHP

Scope 1: Visual Reference Improvements



The Challenge

- Tyre Handling Maintenance is seeking to improve visual reference aids for handler operators when fitting tyre and rim assemblies to large mobile equipment.
- Existing visual aids on tyre handlers do not provide enough assistance for the operators to accurately align the rim with the wheel assembly without a second person providing hand signals from within the footprint of the handler and suspended load.

The Opportunity

- Improve visual aids on tyre handlers to assist tyre/rim positioning and alignment, thus eliminating the need for extra help from a second person.
- Introduce additional visual references to assist rim alignment on wheel assembly.

Scope 2: Rim Jewellery Installation Tooling



The Challenge

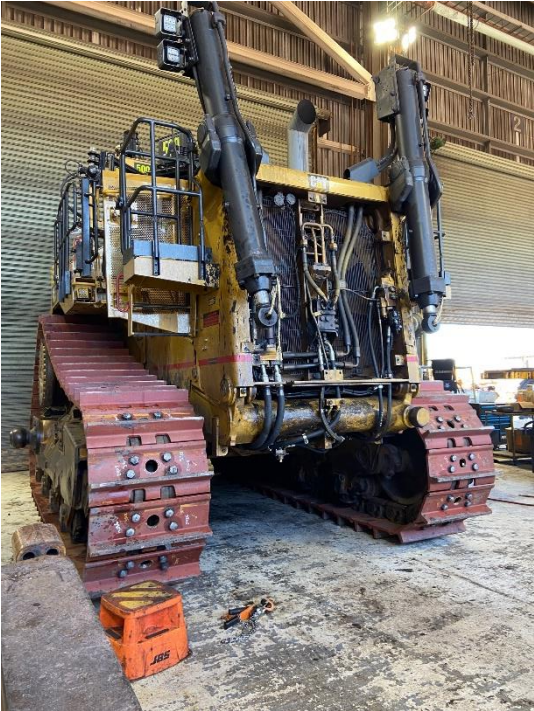
- Once the tyre/rim has been mounted, the tyre handler can be used to push on the tyre to create the separation required between the tyre and the rim to reduce pinch hazards for fitters installing the jewellery required to lock a rim into position.
- Use of the tyre handler to compress the tyre means the fitter is working inside the footprint of the tyre handler arms while they are under load.

The Opportunity

- Tooling to compress the tyre to create and maintain separation from the rim to enable locking jewellery to be installed, without the tyre handler providing the force.
- Tooling that can be quickly and simply manoeuvred into and out of position during tyre/rim removal and fitting.

FY22 Challenge

Remote Dozer Hoisting



BMA Goonyella Riverside Mine

Remote Dozer Hoisting

The Challenge

- Maintenance is seeking to improve the technology used in mobile jacks used to hoist and support dozers when they are in the workshops. To position the jacks, fitters are required to enter the footprint of the dozer while it is powered and its weight suspended by the hydraulic power to either the blade or ripper mechanism.

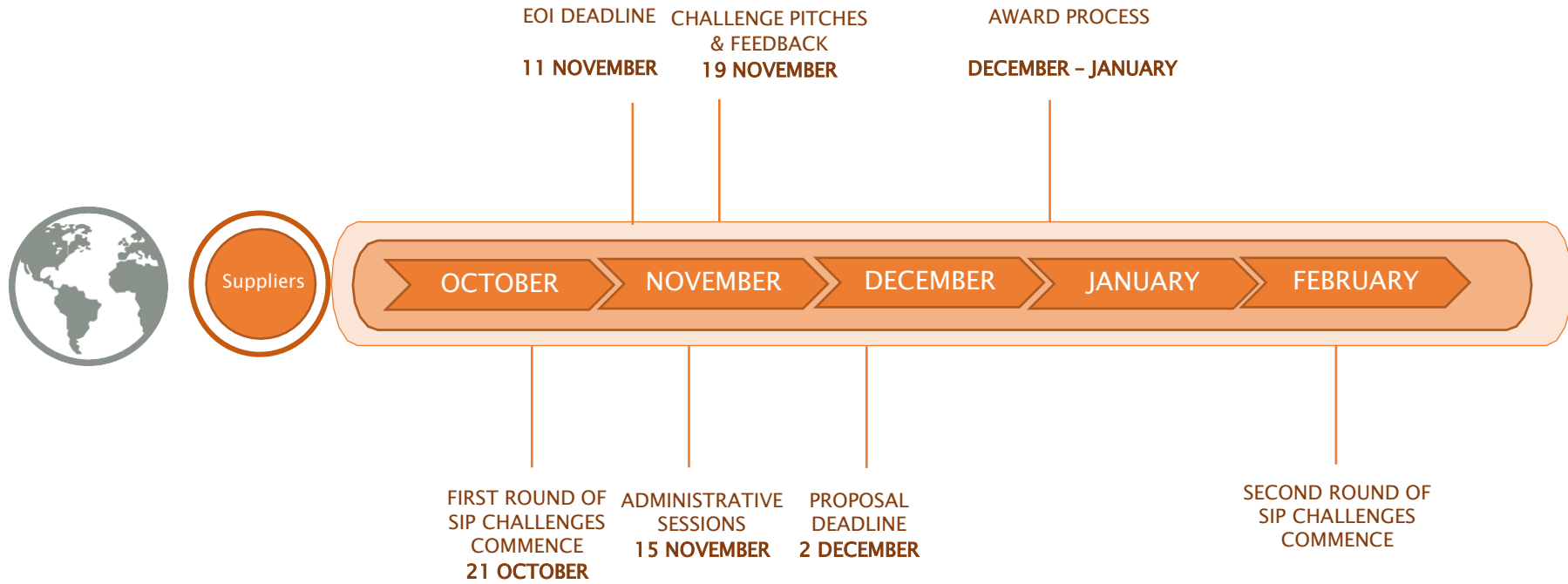
The Opportunity

- Enable fitters to position jacks under the dozer body without entering the footprint of the machine.
- Improve applicability to more diverse maintenance teams by eliminating the need for heavy manual handling.
- Jacks must be narrow enough to provide clearance along the full length of the underside of the machine, and access to the track assemblies and tracks.
- Jacks must be able to be synchronised for balanced hoisting/lowering of a machine.

Timeline for SIP Challenges FY22



Supplier Innovation Challenge Timeline



Next Steps



If you have a solution idea...



Proposals to Address:

- ✓ Understanding the problem
- ✓ What's the solution?
- ✓ Technical approach
- ✓ Level of Innovation
- ✓ Competitive advantage
- ✓ Benefit & value creation
- ✓ Risk & challenges
- ✓ Intellectual property
- ✓ Commercial maturity
- ✓ Scope for collaboration

If you don't have a solution but are interested in future challenges...



Audience Q&A



THANK YOU!

For queries about the Supplier
Innovation Program, Please
contact

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