

Media Release



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Wearable Safety Device assists avoid injury risk

Soter Analytics develops wearable sensor and app to coach industrial workers to avoid injury risk.

New technology consisting of a wearable sensor and accompanying app has been developed by Soter Analytics to measure and assess risk of musculoskeletal injuries (MSK) in resource industry workers, as they are the most common and most costly injury to manage.

MRIWA has supported research Soter Analytics researchers Matthew Hart and Alex Pavlenko to develop new technology consisting of a wearable sensor and accompanying app —known collectively as ‘SoterSpine’ solution.

Safe Work Australia estimates lost productivity can cost a company up to \$8,200 per year, per employee on average. A 5,000-person workforce could cost a company up to \$41M in injury compensation.

The wearable sensor uses algorithms to measure patterns of movement and load bearing that contribute to potential MSK injury.

The sensor warns the worker immediately if they are at increased risk of MSK injury, and coaches them on techniques to reduce risk.

The research, sponsored by MRIWA and Roy Hill, enabled demonstration of proof of concept in a working environment.

The SoterSpine allows an organisation to analyse the risk profile of the entire workforce and implement the relevant health and safety processes to reduce overall risk.

The economic impact assessment conducted by Acil Allen for MRIWA in January 2019, indicated the productivity benefits to the WA iron ore industry from the SoterSpine solution has the potential to save the iron ore industry \$26.6 million over a ten-year period or \$2.7 million per annum. These benefits could be achieved in any industry where there is risk of MSK injury.

In launching the report, MRIWA CEO Ms Nicole Roocke indicated “The SoterSpine technology provides an organisation valuable insight into the risk profile of their entire workforce, allowing them to continuously improve their health and safety mechanisms and protect their workers from injury.”

“Although trialled in the iron ore industry, it is expected that this technology will be applicable to the wider Western Australian resource industries,” she said.

Matthew Hart commented “The SoterSpine solution has now been on the market for more than 12-months and is being used by multiple clients within the resources sector, both in Western Australia and across the country.”

“In addition, it is being used by more than 5,000 workers across more than 20 companies in the USA, the UK, and in Australia in industries such as logistics, airlines, retail, and construction. We particularly excited to see how the support of this innovation has led to all

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these workers across the world reducing their own risk of injury through our training process,” he said.

The app ‘SoterSpine’ is currently available on the Google Play store for android devices and on the App Store for iOS and more detail can be found at www.soteranalytics.com

The technical report summarising the report findings can be located [here](#)

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Background document:

MRIWA Economic Impact Assessment completed by ACIL Allen can be located at:
<https://www.mriwa.wa.gov.au/publications/economic-impact-mriwa/>