

# SmartCap

## Managing operator fatigue

### Challenge

Fatigue is a leading contributor to 60-70% of human error incidents within mining operations. Long hours and repetitive work exposes operators of heavy vehicles to potential exhaustion and often they are unable to assess their level of fatigue. This inability places operators and others at significant risk.

To address this concern Mining3, in conjunction with its industry partners, developed the technology behind SmartCap.

### Solution

Life by SmartCap is a fatigue monitoring wearable for vehicle drivers and operators of heavy vehicles. The LifeBand can be easily integrated into any headwear (cap, hard hat, beanie or worn as a headband). Operators are empowered to manage their own alertness using the Life App. The App provides the driver with actionable visual and audible alerts via the user-friendly in-cab Life Display.



SAFETY



All frequency information is analysed using SmartCap's proprietary Universal Fatigue Algorithm to determine a level of alertness.

A touchscreen Life Display, or any smartphone, is mounted in the cab of the vehicle to provide real-time feedback and alerts to the driver. Centralised monitoring is provided via LifeHub, a cloud-hosted analytics suite, which can also issue SMS and email alerts to line supervisors and management.



## How it works

The underlying measurement behind Life by SmartCap is brain activity. Often referred to as EEG (or electroencephalogram), brain activity has been the golden standard in sleep science for over 30 years. Life measures this activity and determines a high-resolution frequency profile of the signal which spans the delta, theta, alpha and beta frequency bands of EEG.

## Status

SmartCap is a spinoff company of Mining3 and the innovative technology is commercially available. Contact SmartCap direct on +61 7 3870 2554 or go to [www.smartcaptech.com](http://www.smartcaptech.com).



### About Mining3

Mining3 is the world's leading research organisation, directed by its global mining industry members to develop and deliver transformational technology to improve productivity, sustainability and safety.

SAFETY