



# Real-time cognitive load monitoring in VR/AR and cognitive training

## Purpose

- Implementation of portable VR/AR environment suitable for:
  - Real-time cognitive load monitoring
  - Tailored cognitive training
- Validation of cognitive training protocols and measures for enhancing cognitive performance in Army

## Product

- Portable VR/AR environment for monitoring/training cognitive performance
- Tool for real-time cognitive load measurement using minimal EEG channels. Further support will enable this to be incorporated in combat gear
- Evidence-based protocol for enhancing cognitive performance

## Partners

- UniSA: Mark Billingham, Bruce Thomas, Ina Bornkessel-Schlesewsky, Matthias Schlewsky, Javaan Chahl, Maarten Immink, James Baumeister, Alex Chatburn
- DST: Diane Pomeroy



## Schedule

- FY17-18: Development of VR/AR environment, tool for real-time cognitive load measurement, and cognitive training protocol. Systematic literature review on cognitive training
- FY18-20: Data collection (uni, community, and 16 REGT.). Data analysis, preparation of final report, and dissemination of findings