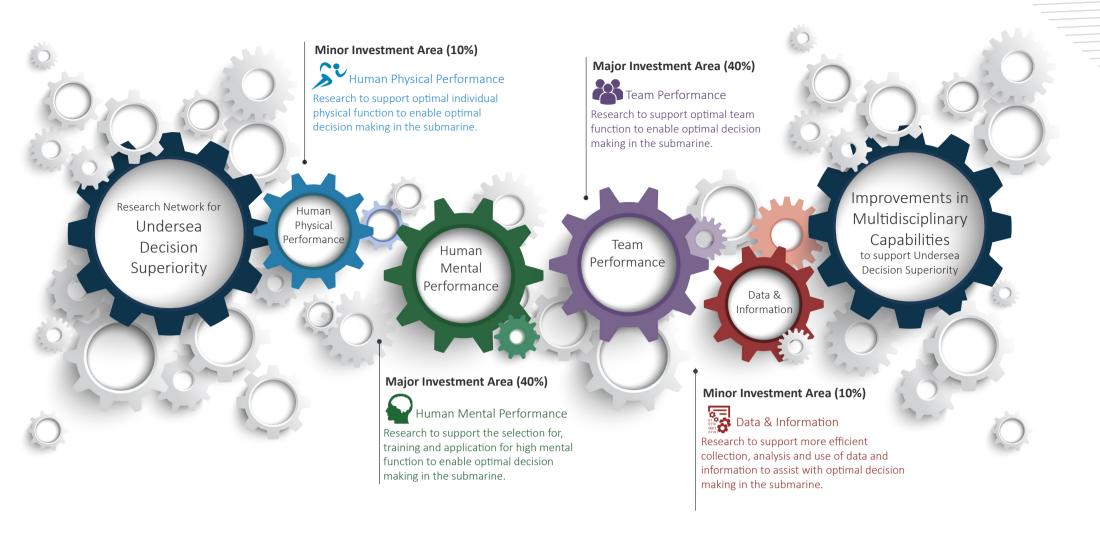
RESEARCH NETWORK FOR UNDERSEA DECISION SUPERIORITY



Potential Areas of Investment

Potential areas of investment under each of the investment areas include but is not restricted to:



Environmental adaptation to improve submariner alertness and fatigue management including recovery, sleep, self-awareness and circadian rhythms.

Space and ergonomics to improve the way submariners operate and interact with the environment in a submarine.

Other research such as food and nutrition on board a submarine, maintaining and physical health.



Cognitive performance such as new theories of learning and awareness to improve efficiency in during operation.

Training for experience to accelerate the time to acquire skill and experience.

Psycho-social well-being to improve submariner interactions and cohesion.

Other research such as ensuring the right person for the right role and decision making.

Team Performance

Team dynamics to improve team operation and interactions.

Technology in teams to improve the use of technology into team operations.

Work/life systems to improve team operational efficiency on and off duty.

Team effectiveness to improve overall performance of the team.

Data & Information

Data processing and translation to better support decision making .

Human centred design that integrates human perspective into the data and information management.

Cognitive systems engineering to improve the socio-technical system on a submarine.

Other research such as human machine interfaces and communication.

Key Elements of the Investment Strategy

Strategic Investment Priorities

The investment proprieties are categorised into two streams:

- *Major investments* these are areas the Research Network for Undersea Decision Superiority (the Network) has identified as key priority areas for the year. These areas of investment have been assessed as being of significant importance to decision making in the submarine, would benefit from an increase in capability or capacity and have aspects that are sufficiently unique and so may not be addressed through other research activities. Major investments have a larger pool of funding available to support capability building.
- *Minor investments* these are areas the Network has identified as a secondary interest for the year. Whilst important to decision making in the submarine, there is an
- existing research capability in these areas or research is of more general applicability and is supported more widely. Minor investments have a smaller pool of funding available to support capability building.

Multidisciplinary Research

The challenges faced in the operation of a submarine are often complex, with a large number of interrelated components. The complexity of the submarine ecosystem presents challenges that spans across the investment areas identified and will more often then not will require a multidisciplinary approach. To encourage this, the Network will place a greater emphasis on projects with multidisciplinary research that can build capability across the investment areas.

Annual Reviews

The Network's investment strategy is subject to annual review by the Board to ensure the research themes and potential areas of investment align to the needs of submariners, and areas of investment continue to build capability in areas that support undersea decision making into the future for Australia. Where new investment areas are identified the Network will release a new investment strategy applicable to that year.

Monitoring and Evaluation

The goal of the network is to build research capability aligned to the investment areas. This will be monitored and evaluated using key performance measures commonly tracked by Universities, including but not limited to: the number of PhDs, post docs and researchers involved in the projects, publications, citations and conferences. A detailed monitoring and evaluation plan is detailed in the Network's Strategic Investment Plan.

