



Mission Area: Health and Wellbeing

In partnership with The University of Technology Sydney (UTS), we have been working with collaborators from across industry, research and government to co-design this mission. This summary reflects the mission in development and will continue to evolve.

A future where antibiotics still save lives. The mission aims to connect, coordinate and cultivate new strategies and technologies to ensure that antibiotics remain effective.

Australia's opportunity

The rise of drug-resistant infections are already undermining modern medicine. They are now one of the greatest threats facing humanity.

Bacteria are developing increased resistance to the drugs designed to kill them. This growing resistance is largely due to our overuse of antibiotics. As one of the largest consumers of antibiotics globally, this places Australia at particular risk.

If we do not take action against antibiotic resistance, we will return to the dark ages of medicine where currently treatable infections and injuries kill once again.

As this issue gains momentum here in Australia and globally, there is international agreement that there are substantial knowledge gaps when it comes to understanding how drug-resistant bacteria are spread between people, animals and the environment.

The global consensus is that to tackle this threat, any solution being developed needs to take a 'One Health' approach; integrating consideration of the human health, agricultural and environmental aspects of the problem.

Proposed mission focus

- Surveillance and Monitoring: creation of an AI-driven surveillance and decision support system (OUTBREAK)
- Intervention and Remediation: create new technology-driven interventions such as biosensors and devices, antimicrobial small molecules, polymers and surfaces that mitigate or remediate AMR hot spots
- Generate critical data to be used in the decision support system.

Impact

- Human and animal lives saved
- Trade and market access protected
- Agricultural exports increased

Collaborators

The mission invites others to join the initial alliance of:

- Department of Agriculture, Water and Environment