



# Responsible innovation

We are investing in responsible innovation to ensure future science and technology is delivered for the benefit of all Australians

As new science and technologies develop apace, they can create complex questions for our society and decision-makers. Emerging risks and opportunities give rise to social and ethical challenges. These must be rigorously assessed and prioritised to achieve better outcomes for all Australians.

This is where responsible innovation (RI) steps in.

## > What is RI?

The idea that through research, we can shape scientific innovation and new technologies to deliver widespread benefits for society, industry, and the environment.

At CSIRO, responsible innovation is a novel program of multidisciplinary research. We are focused on building new capabilities and methodologies to better understand the impacts of future science and technologies.

## > Why RI?

It's crucial to systematically and scientifically understand the full spectrum of consequences from cutting-edge innovation.

It is also a way for stakeholders, end users, industries and communities to understand the impacts of future science and technology on their lives. It gives people a voice to shape innovation for the better – right from the start of the pipeline.

## > Why we can't afford not to

If R&D hurtles ahead outside the guardrails of responsible innovation, we risk:

- A 'checkbox' approach to ethics, which fails to capture the diverse needs and values of the Australian people.
- Missed opportunities realise positive, meaningful outcomes for society, industry and the environment.
- A breakdown in public trust, where investment in science does not yield acceptable solutions.

## Responsible Innovation Future Science Platform

Commenced

September 2017

\$11.6m

investment to June 2025

## Working together with

Australian National University  
Charles Darwin University  
The University of Queensland  
The University of Tasmania  
AgResearch New Zealand  
Something Digital | World Economic Forum | Organisation for Economic Co-operation and Development (OECD) | The Department of Climate Change, Energy, the Environment and Water (DCCEEW) | The Department of Industry, Science, and Resources (DISR) | IP Australia  
Government of South Australia  
Austrian Institute of Technology  
Fraunhofer-Gesellschaft | Helmholtz Association | VTT (Technical Research Centre of Finland)

# Our research portfolio

Developing a diverse portfolio of future science and technology for Australia, we work across three key areas:

## Socially responsive genetic technologies

From industry-scale disruption to personal applications.

Includes:

- socially responsive novel health and food innovations
- protections from infectious diseases and anti-microbial resistance
- vaccine development
- new approaches to biosecurity.

### PROJECT SPOTLIGHT

#### Serving up our future foods

Designing food innovations to align with societal needs and expectations



## RI for emerging digital technologies

Focusing on the social and ethical considerations relating to their design and deployment in society.

Includes:

- quantum technologies
- artificial intelligence
- cybersecurity applications
- data use and digitisation.

### PROJECT SPOTLIGHT

#### Powering up Australia's quantum economy

Preparing our industry sectors for the arrival of quantum technologies



## Managing risk for environmental-scale interventions

Assessing how future science and technology impacts landscape, regions, and climate.

Includes:

- large-scale energy system change
- novel energy storage
- negative emissions and permanent carbon locking technologies
- Industrial-scale transformation.

### PROJECT SPOTLIGHT

#### Innovating towards net zero

Creating equitable outcomes from permanent carbon locking technologies

