

Engagement and Impact

Mission:

CeRDI conducts research in the application of digital data and information technologies (eResearch) with the goal of transforming practice and empowering partners across industry, government, academia and communities.

Capabilities:

CeRDI brings together a unique multi-disciplinary team with expertise in natural capital accounting, environmental science, soil science for production systems, hydrogeology, social research and data technologies.

The Centre has deep expertise in data interoperability (FAIR principles), spatial mapping, data federation from disparate sources, decision support systems, visualisation tools.

Platform architecture for data management and analysis.

Key Research Partnerships:

CeRDI's engagement with industry and government aligns with Federation University's Co-operative Model through the co-design of applied research projects and co-funding of HDR scholarships. Research partners include:

- Soil Cooperative Research Centre
- Food Agility Cooperative Research Centre
- Australian Research Data Commons
- Grains Research and Development Corporation
- Catchment Management Authorities
- · Farming Systems Groups
- · Victorian Drought Resilience Adoption and Innovation Hub
- Precision Agriculture Pty Ltd

Our research themes

CeRDI's research is focused in four themes:

Natural Capital

Digital Agriculture

Transformative Digital Architectures

Resilient Communities





Examples of CeRDI's Impact



Visualising Victoria's Groundwater (VVG)

Transforming Practice: Making Groundwater Data Accessible – A Model for Data Democracy

VVG federates groundwater data from more than 400,000 bores, enabling a 'virtual bore' at any location in Victoria with estimates of aquifer depth and groundwater quality. VVG has transformed industry practice. The platform consistently attracts 25,000-35,000 site visits per year demonstrating its ongoing value and relevance.



Environmental Credentials

Integrating Property and Catchment Level Data for Natural Capital Accounting

Data on soil quality, water use, biodiversity and vegetation extent and condition are integrated, enabling sustainability reporting at both property and catchment scales. The integration of private and public data enables natural capital accounting and assessment aligned with international frameworks (SEEA, TFND).



Online Farm Trials (OFT)

Making Research Data Discoverable for the Grains Industry

Farm trials results in the grains industry were previously difficult to discover and access, stored on personal computers or published in annual trial booklets by farming groups. OFT makes metadata about farm trials across Australia accessible to industry and to university researchers, supporting collaboration, efficiency and decision-making.



Visualising Australasia's Soils (VAS)

Creating a National Resource: A Soil Data Management Platform

VAS federates soil related datasets and information from government agencies, industry organisations, community groups and individuals. The VAS portal enables users to visualise, analyse and compare their soil data with other relevant datasets, supporting evidence-based soil management decisions and providing insights into long-term trends, benchmarking, and soil performance.

"Innovation in digital research is not just about technology— it's about transforming how communities connect, collaborate, create and share knowledge."

Distinguished Professor Helen Thompson | Centre for eResearch and Digital Innovation (CeRDI)

Find out more

For research queries and to find out more about CeRDI, visit the Centre website: federation.edu.au/cerdi



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