# Position Details

## CSIRO Early Research Career (CERC) Postdoctoral Fellowship– CSOF4

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| The following information is for applicants | |
| Advertised Job Title | CSIRO Postdoctoral Fellowship in Navigating Sustainability Transitions and Transition Risk and Governance |
| Job Reference | 81422 |
| Tenure | Specified Term of 3 Years |
| Salary Range | AU$89,926 to AU$98,504 pa + up to 15.4% superannuation |
| Location(s) | Black Mountain, Canberra, ACT  Brisbane, QLD or Hobart, TAS considered |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Line Manager: Dr Andy Hall (Team Lead, Agriculture and Food).  Project Lead: Dr Stuart Whitten, Adaptive Communities and Industries, Group Leader, Land and Water) |
| Client Focus – Internal | 100% |
| Client Focus – External | 0% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Stuart Whitten via email at [Stuart.Whitten@csiro.au](mailto:Stuart.Whitten@csiro.au) |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the area that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

**CSIRO Early Research Career (CERC) Postdoctoral Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years relevant postdoctoral work experience. These fellowships aim to develop the next generation of future leaders of the innovation system through:

* A differentiated career development program to deliver capability excellence and breadth across all facets of the national innovation system.
* Research training via strategic research and development projects with a clear focus that will deliver real impact through science and engineering excellence;
* An innovative culture supporting the development and demonstration of original thinking and expertise leading to peer-recognition; and
* Opportunities to develop skills and experience in collaborative research teams to effectively work within national and global multi/transdisciplinary and multi-stakeholder environments.

CERC Postdoctoral Fellows **are appointed for three years full-time or equivalent.**

The **Valuing Sustainability Future Science Platform (VS FSP)**is a substantial new 5-year investment in cutting edge research by CSIRO that will recruit 15 post-docs who will be embedded in diverse inter-disciplinary research teams. The VS FSP aims to co-produce future pathways, measures and indicators to underpin sustainable innovation and prosperity for current and future industries and communities. The VS FSP will bring together social, biophysical, economic and data science teams and work with diverse stakeholders to advance these outcomes, in part through developing measurement and assessment technologies that can support decision-making, attribute change to practice, and track progress.

Within the VS FSP, the **Navigating Transitions** project focuses on supporting the transformative shifts across Australian sectors, regions, corporate and consumer practices that will be needed to return within Earth system boundaries and to support diverse human values. The project will have a focus on net zero transitions in regions and supply chains but will also take a broader view and learn from other transitions (climate resilience, sustainable diets etc). Successfully navigating these transitions requires society to initiate and mainstream innovations to drive transitions, to monitor and manage transition risks, and to avoid perverse or undesirable outcomes and to do so in complex social-ecological systems. Successful sustainability transitions will require new or adapted tools, indicators and methods to support transition governance.

The Navigating Transitions project will focus on how sustainability transitions are initiated and led, the relationships between stakeholders, and what socio-technical innovation processes are feasible. Key areas and critical questions for this area of cross-disciplinary research include (with the focus for this PDF on the first three of these, and the other in association with an aligned postdoctoral position as part of a broader project team):

* How do we support and improve governance to navigate transitions matching the urgency and scale of needs?
* What knowledge, processes and institutions (including data/tools developed by the FSP) reduce risk or translate it to opportunity, avoid lock-ins and unjust outcomes?
* What options for co-production can support public / private value contributions and build trust and ownership?
* Which elements and dynamics contribute to successful sustainability transitions (driving forces and barriers, capitals/capability, diversity, information flow, stakeholder relationships, value-sharing)?
* How do we identify, foster & fast-track innovation to disrupt and transform the mainstream (i.e., conventional business, resource use practices and systems) whilst effectively managing risks?

### Key Result Areas:

Under the direction of senior research scientists within the Navigating Transitions project team the Postdoctoral Fellow will:

* + Review available literature across successful and less successful sustainability transitions to identify the role and forms of governance, information flows and transition risks and their management.
  + Drawing on the literature review and case studies, design a diagnostic of key socio-ecological system capitals or advantages, challenges and barriers to effective transition governance, with emphasis on opportunities for research to influence efficacy in the Australian institutional and economic context.
  + Work with team members and other FSP projects to design and implement test interventions that would improve information, risk management and/or governance of sustainability transitions. Test interventions in at least one case study location.
  + Support project development of a network of stakeholders and engage in workshops, conferences, community meetings that can identify and actualise desirable sustainable sector and regional development outcomes.
  + Collaborate across the Valuing Sustainability Future Science Platform, including projects running in parallel to the Navigating Transitions project and across CSIRO, as identified and appropriate.
  + Participate as a lead author and contribute to the development and publication of journal articles, manage external partnerships and relationships, and work together with the larger Valuing Sustainability FSP team within and across CSIRO.

Additionally, all CERC Postdoctoral Fellows:

* + Carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
  + Recognise and exploit opportunities for innovation and the generation of new theoretical perspectives, and progress opportunities for the further development or creation of new lines of research
  + Utilise design thinking methodology to plan and prepare research proposals, and apply non-academic impact methodology to research projects
  + Carry out research investigations requiring originality, creativity and innovation
  + Record, manage, and analyse data/information using relevant domain data science techniques.
  + Proactively undertake development to grow effective researcher capabilities to support career goals.
  + Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

[**The CERC Postdoctoral Fellow learning and development program**](http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships)is developed between the CERC Postdoctoral Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellows’ capabilities to the level expected of an independent researcher and will include on-the-job and course-based development encompassing:

* Discipline-specific techniques and protocols
* Professional growth
* Project management
* Communication and influencing skills
* Working and collaborating with others

## **Required Competencies:**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. Those with a doctorate (or candidates who will shortly satisfy the requirements of a PhD) from a wide range of relevant discipline areas are invited to apply (for example: political science, policy studies, sustainability science, climate adaptation, innovation policy, integration & implementation sciences, science and technology studies).
2. Strong foundation in systems thinking, preferably as applied to socio-ecological systems.
3. Experience designing and undertaking rigorous research including collecting primary data and managing fieldwork, developing and implementing experimental interventions including familiarity with human ethics in research processes.
4. Experience blending qualitative and quantitative methods including evidence of proficiency in data analysis (e.g., behavioural experiments, statistical analysis, industrial organisation, system dynamics, etc.).
5. Demonstrated capacity to lead research projects, conduct high-level workshops and conferences, and work productively with a range of external stakeholder groups with minimal supervision.
6. High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including the presentation of research outcomes at national and international conferences.
7. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.
8. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.
9. A current driver’s licence.

## **Desirable:**

1. Experience working on sustainability transitions or similar research areas with a focus in agricultural, land-use, and sustainability-focused topics, or in industrial and mining transformations in collaboration with a range of stakeholders.
2. Experience engaging with diverse stakeholder groups or partnerships for applied research.
3. Remain productive, positive and resilient in complex, ambiguous and/or uncertain environments.
4. **The ability to work effectively as part of a multi-disciplinary, potentially regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates are required to have **submitted** their PhD at the time of commencement, as a minimum requirement, if PhD conferment has not been obtained. If a candidate has submitted, but their PhD has not yet been formally attained, the starting salary will be CSOF4-1 (AU $87,068). Upon CSIRO receiving written confirmation that the PhD has been awarded (within a six month period from commencement date), the salary will be increased to the negotiated level and the difference will be back-paid to the Officer’s start date.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).

**Our value proposition**

We want CERC Postdoc Fellows to join our world class science, engineering and digital teams to solve big, complex problems that make a real difference to the future of Australia and the world.

You'll get to work with some of the most talented minds in their fields, not just in Australia, but in the world. At CSIRO, we spark off each other, learn from each other, trust each other and collaborate closely to achieve more than we could individually.

CSIRO Early Research Career (CERC) Postdoctoral Fellow Experience Employee Value Proposition (EVP). Find out more [here](https://www.csiro.au/en/careers/postdoctoral-fellowships)!

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Agriculture and Food](https://www.csiro.au/en/Research/AF)