# 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 Food Systems Sustainability and Resilience  |
| Job Reference | 93947 |
| Tenure | Specified Term of 3 years full-time |
| Salary Range | AU$92,624 to AU$101,459 pa (pro-rata for part-time) plus up to 15.4% superannuation |
| Location(s) | St Lucia, Brisbane, Queensland |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens, Australian Permanent Residents and Australian temporary residents currently residing in Australia (visa sponsorship may be provided to eligible onshore candidates) |
| Position reports to the | Team Leader, Food Systems Dynamics |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Lilly Lim-Camacho via email at lilly.lim-camacho@csiro.au or phone +61 7 3327 4730 |
| 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 or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas 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).

 **Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

**CSIRO Early Research Career (CERC) Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years relevant research 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 Fellows **are appointed for three years or full-time equivalent.**

Our food system provides food and nutritional security, livelihood and employment, infrastructure and public services, environmental resources and natural capital, and a vast array of other social benefits. System-wide threats such as climate change and the COVID-19 pandemic have ignited a growing interest in better understanding the interface between resilience and sustainability, including the intended and unintended impacts of response strategies.

The CERC Fellow will design and conduct mixed-methods research that informs modelling of trajectories towards enhanced food system resilience and sustainability. Using a case study approach to better understand priorities in local food systems, the CERC Fellow will engage with stakeholders to identify sustainability and resilience attributes and understand the context behind system drivers for sustainability transitions.

They will leverage prior work in the interface between sustainability and resilience to develop pilot models based on local drivers and attributes, enabling the assessment of both long- and short-term implications of stakeholder strategies and scenarios while integrating local knowledge systems and decision-making processes. The project aims to enable food system decision makers (i.e., businesses, policy makers) to develop better informed strategies to transition into more sustainable futures by identifying appropriate attributes and sequencing of activities to attain said attributes.

This position is embedded in the CSIRO Agriculture and Food Sustainability Program, particularly the Sustainability Transitions Target Area. The Target Area involves researchers from across CSIRO with a range of disciplinary backgrounds and is interested in how different aspects of agri-food systems can transform towards a more resilient and sustainable future. In addition, the CERC Fellow will have the opportunity to partner with other CSIRO initiatives such as the Food Systems Horizons Initiative, Towards Net Zero Emissions Mission and the Valuing Sustainability Future Science Platform.

### Duties and Key Result Areas

Under the direction of senior research scientists and engineers, this CERC Fellow will:

* + Carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
	+ Examine existing approaches to informing food system transitions, particularly the interface between sustainability and resilience in food systems.
	+ Develop selection criteria for the identification of case study food systems.
	+ Employ qualitative and quantitative research techniques to conduct in-depth case studies of the interface between resilience and sustainability in local food systems.
	+ Engage with case study stakeholders to co-identify resilience and sustainability priorities and attributes and co-develop frameworks for food system resilience and sustainability.
	+ Develop archetypal or pilot models and leverage participatory integrated assessment modelling approaches to explore disruption and intervention scenarios with relevant stakeholders.
	+ Undertake regular reviews of relevant journal and patent literature.
	+ Produce high quality scientific and technical outputs including journal articles, conference papers and presentations and technical reports.
	+ Represent CSIRO at leading national and international conferences and forums as agreed with your supervisor.
	+ 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.
	+ Manage and maintain privacy, confidentiality and ethics requirements and practices in all aspects of the project.
	+ Communicate effectively and respectfully in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
	+ Work effectively as a member of a multi-disciplinary, international, and regionally dispersed research team, to undertake independent scientific investigations and carry out associated tasks under broad guidance from other Research Scientists.
	+ Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
	+ Other duties as directed.

The CERC Fellow learning, development and training programis developed between the CERC Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellow’s 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

## **Selection Criteria**

#### Essential

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

1. A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area. For example: sustainability science, agri-food systems, inter- and transdisciplinary research, sustainability transitions, social-ecological/socio-technical systems modelling, human geography, science and technology studies, environmental and social governance.

Please note: To be eligible for this role you must have **no more than 3 years** (or full-time equivalent) of postdoctoral research experience.

1. Demonstrated stakeholder engagement experience, including for example knowledge co-production, development and application of participatory research methods.
2. Demonstrated experience in the design and application of systems thinking and systems modelling, for example, systems dynamics, agent-based models, integrated assessment models or others.
3. Demonstrated experience with qualitative and quantitative research methods, and the ability to integrate findings from both to provide meaningful insight.
4. Demonstrated knowledge and understanding of agrifood systems, its key stakeholders and its challenges.
5. Demonstrated ability to successfully work in a diverse, multidisciplinary team and contribute to an inclusive work environment.

## **Desirable**

1. Experience with reflexive learning practices and adaptive management across a range of stakeholders.
2. Experience in developing and using participatory systems modelling, scenario and vulnerability analyses.
3. Experience in designing and/or implementing scenarios, metrics and/or frameworks related to resilience, sustainability, vulnerability and/or risk.
4. 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.
5. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.
6. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## **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.

To be appointed to this CERC Fellowship within CSIRO, candidates are required to have **submitted** their doctoral thesis at the time of commencement, as a minimum requirement, if PhD conferment has not been obtained and be able to commence by 14 December 2023. If a candidate has submitted, but their PhD has not yet been formally attained, the starting salary will be CSOF4-1 ($89,680). 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 is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals 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).- https://ielts.com.au/

**Our value proposition**

We want CERC 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.

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

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [Agriculture and Food](https://www.csiro.au/en/Research/AF) for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted