# 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 System Transformation: Dynamic Benchmarking and Tracking of Performance** as part of the CSIRO-UQ FOOD SYSTEM HORIZONS Initiative |
| Job Reference | 90000 |
| Tenure | Specified Term of 3 years  Full-time |
| Salary Range | AU$89,926 to AU$98,504 pa + up to 15.4% superannuation |
| Location(s) | St. Lucia, QLD |
| 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 | Food System Horizons Initiative Lead, Senior Principal Research Scientist |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Frank Sperling via email at [Frank.Sperling@csiro.au](mailto:Frank.Sperling@csiro.au); +61 7 3214 2438 |
| 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 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).

### Role Overview

**CSIRO Early Research Career (CERC) Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have at least one year of 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 part time equivalent.**

**The CSIRO-UQ Food System Horizons Initiative**

The overarching vision of the *Food System Horizons* Initiative is to help build a new and better-informed national conversation on food system transformation that is inclusive of different stakeholder visions, ambitions and values, and identifies a range of solution pathways to Australia’s food system futures.

*Food System Horizons* will build the capacity of Australia to navigate, manage and direct transformational change processes aligned to the nation’s priorities and ambitions. Its organisational format will be that of an evidence-basedThink Tank that provides strategic guidance to both policy and practice brokering collaborative, multi-sector partnerships and a catalyst to energise and activate collaborative solutions across all food system stakeholders (e.g., industry, government and research institutions, communities, and vulnerable population groups).

Part of the role for *Food System Horizons* will be to train a cohort of food systems transformation capable professionals for roles in academia, industry, government, and civil society. The focus of the Initiative will be on Australia, as an active leader in the Asia-Pacific region, increasingly embedded in global food systems. The Initiative will generate evidence, promote debate and inform policy and practice options to advance the country’s food system transformation journey. A core motivation is enhancing value in, for and from Australia’s food and agriculture systems to drive sustainability and improve nutritional outcomes. The Initiative will play a translational role in applying international insights and frameworks to Australia’s unique food systems challenges. It will assess and monitor regional and global drivers that will impact on Australia’s economic interests and goals for healthier, equitable and more sustainable food systems. This will facilitate Australia’s presence and engagement in global research and policy forums.

**This position is one of four initial Postdoctoral and Research Fellows as part of the Food System Horizons Initiative**

The initial round of postdoctoral fellows is framed by an understanding of the dynamic, interconnected and often path-dependant nature of food systems. This framing recognises that transformational change is systemic in nature, needs to explicitly navigate and challenge incumbent interests and values, and needs to be supported by a novel, systemic process that couples governance, institutional, policy and technological innovations across different scales of the food system.

This postdoctoral fellow will work closely with a multi-disciplinary team of CSIRO and UQ researchers and the other three fellows, which are framed as:

* **Constraints to and enablers of change in food systems**: Analysis that explores the integrated set of social, technical, institutional, policy and power dynamics that prevent different the domains of the food system from changing towards improved nutritional, environmental, social and economic performance (appointed by CSIRO).
* **Drivers and solutions that promote change in food systems:** Analysis that identifies key leverage points and explores the different types of drivers and interventions that trigger systemic change - and associated trade-offs and risks - that could improve the nutritional, environmental, social and economic performance of the different domains of the food system (appointed by UQ)
* **Re-envisioning food systems:** Bringing together analyses important to better understand key relationships and interactions and interrogate them from a whole-of-system perspective. To facilitate a broader interrogation of the work that will be conducted through this initiative, this post-doc will incorporate divergent thinking methodologies that use research conducted across the centre as inputs to re-envision food systems (appointed by UQ).

The Postdoctoral Fellow will make significant contributions in developing the evidence base and associated tools to establish a framework of the Australian food system. The framework will have the capacity to monitor and report performances across key dimensions of the food system (e.g. nutrition/health, economic, social, and environmental), help assess and compare the rate and robustness of progress over time, explore interrelationships, identify gaps and vulnerabilities, summarize environmental footprints, and present outlooks. As such, the research will inform about the status of the current Australian food system, contribute to engagement discussions in the Asia Pacific region, and underpin the discourse on a transformative agenda for the future, supporting the aim to strengthen resilience and sustainability within broader regional and international contexts.

The candidate will undertake activities such as, but not limited to:

1. Undertake literature review and stakeholder discussions to develop a methodological framework to analyse the adequacy of current tools used to assess nutritional, environmental, social and economic performance of across different components of the food system and identify gaps and unmet needs.
2. Conduct deep dive analysis to demonstrate how the framework can help track change (e.g., through benchmarking) across key food system dimensions (nutritional, environmental, social and economic).
3. Identify benchmarking and foot printing priority areas for the *Food System Horizons* Initiative to pursue in partnership with industry and government to inform innovation investment decisions.
4. Actively engage and communicate activities with food system stakeholders, including industry, policy makers, communities and civil society.
5. Actively support the Food System Horizons Team in the conceptual and operational development of the initiative, leading and contributing to research proposals and embedding individual research in the broader vision and objectives of the initiative
6. Publish novel research on frameworks, tools and data that help advance the understanding and practice of benchmarking food systems performance aligned with the goal of promoting sustainable, equitable and healthy food systems.

### Duties and Key Result Areas

The fellow will lead and contribute to work benchmarking and footprint analysis and in so doing will be expected to:

* Review current tools, methods and data to assess performance of the food system and identify gaps and unmet needs.
* Co-develop methodological frameworks to advance the evidence base on the performance of Australia’s food system, evaluating progress across nutritional, economic, social and environmental dimensions in relation to societal goals and sustainability criteria.
* Test and apply the framework to evaluate the overall performance of the food system, including retrospective and prospective perspectives, resulting in report/publication, followed by periodic updates.
* Provide suggestions on focal areas for solutions aimed at improving the performance of the food system.
* Identify priority areas for the *Food System Horizons’* Initiative to pursue in partnership with industry and government.
* Contribute to developing the conceptual approach and operational engagement of *Food System Horizons*, integrating individual research into the broader vision and objectives of the initiative, evident through written contributions, presentations, and engagement in research proposals as active team member.
* Lead and co-author reports, research papers, and scientific publications, substantially contributing to *Food System Horizons* research profile.
* Where relevant, support outreach and communication efforts by developing policy and industry briefs and supporting visuals to facilitate interaction with stakeholders and contributing to communication pieces in translational publications such as The Conversation (with support from UQ/CSIRO communications).
* When required represent CSIRO externally, including discussion of progress with industry or policy representatives

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

* 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
* 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.
* Perform 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, such as economics, environmental science, social science, systems sciences, geography, data sciences.

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

1. Demonstrated experience with quantitative and qualitative methods as well as development of databases with relevance to benchmarking and assessing food system performance.
2. Demonstrated experience with food systems analysis and familiarity of informed theories of system transformation.
3. The ability to work collaboratively and effectively as part of a multi-disciplinary, potentially regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.
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 outputs with industry and policy stakeholders.
5. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.

## **Desirable**

1. Working knowledge and appreciation of the complexity of food system issues across the value chain, resource uses in agriculture and energy production, land management, climate change.
2. Demonstrated experience in working for or engaging with the public and/or private sector stakeholders, addressing policy and operational issues relevant to applied food system research.
3. Familiarity with policy frameworks and goals relevant to food system transformation, sustainability and resilience considerations.
4. Familiarity with data visualisation software and techniques, and the ability to interpret and communicate complex results.

## **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 as a CERC Fellow 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. 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 Clearance or equivalent. 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