# 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: Constraints and Enablers** as part of the CSIRO-UQ FOOD SYSTEM HORIZONS Initiative |
| Job Reference | 90001 |
| 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)
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| 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; +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 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 audiences, brokering collaborative, multisector partnerships and a catalyst to energise and activate collaborative solutions across industry, government and research institutions, communities, and priority populations.

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. It will generate evidence, debate and policy and practice options to advance the country’s food system transformation journey. A core motivation is enhancing the capacity of Australia’s food and agriculture systems to improve nutrition and drive sustainability outcomes. The Initiative will play a translation role in applying international insights and frameworks to Australia’s unique food systems challenges. It will assess and anticipate regional and global drivers that will impact on Australia’s economic interests and goals for healthier, equitable and more sustainable food systems. And it will help maintain Australia’s presence and legitimacy 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:

* **Dynamic benchmarking and foot printing:** This position establishes the current nutritional, socio-economic and environmental profile and performance of the food system, based on reviewing the evidence and developing associated data base and tools for in-depth analysis and visualisation. It further contextualizes the state of Australia’s food system by monitoring and measuring change and progress in relation to societal goals and benchmarking against other key countries. Overall, the fellow will aim to characterize progress across food system dimensions, how relationships are changing and expected to change in the future and how this may affect socioeconomic development and environmental footprints – thereby creating a profile and narrative that reflects the dynamics of these systems (appointed by CSIRO).
* **Drivers and solutions that promote change:** Under this position analysis will be conducted that identifies key leverage points and explores the different types of drivers and interventions that trigger systemic change, (associated trade-offs and risks) that could improve the nutritional, environmental or social performance of different domains of the food system (appointed by UQ).
* **Re-envisioning food systems:** This position brings together analyses important to better understanding 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, the fellow 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 on Food System Transformation: Constraints and Enablers** will undertake analyses that explore the integrated set of social, technical, institutional, policy and power dynamics that constrain or facilitate change in different domains of the food system towards improved nutritional, environmental or social performance. The research will be an integral part of the *Food System Horizon* Initiative. As such the Fellow will work closely with team members to develop the overall vision, conceptual and operational approach and research profile of the Initiative. Guided by systems thinking the Postdoctoral Fellow will contribute to an advanced understanding of how and where Australia’s food systems needs to be transformed to become more sustainable, resilient and just in a globally changing world. In this context, the Postdoctoral Fellow may also be supporting discussions on the implications for wider Asia Pacific region and emerging research opportunities.

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

1. A literature review to develop a conceptual and methodological framework to analyse barriers and enablers for food system transformation.
2. Review current food systems transformation in Australia, identifying existing bodies of analysis, as well as promising trends and emerging transformative spaces that could promote wider system changes.
3. Select a limited number of contrasting domains of food system transformation for in depth analysis and explore and anticipate the nature of change pathways and the implications for innovation investment and other forms of practice, governance and policy support.
4. Adapt and develop a conceptual and analytical framework that helps guide the selection of emerging transformational spaces and the design of institutional and policy enablers for change pathways aligned to the goal of sustainable, equitable and healthy food systems.
5. Engagement and communication activities with community leaders, industry, and policy makers.
6. Publish methods and frameworks that advance understanding, practice and policy that promotes the transformation of food systems aligned to the goals of inclusive and sustainable growth.

### Duties and Key Result Areas

The fellow will lead work on understanding constraints and enablers of change and in so doing will be expected to:

* Identify and assess barriers and opportunities for food system transformation, reviewing also underlying conceptual and analytical approaches.
* Develop the evidence base describing the pathways through which food system domain change could occur to improve nutrition and health, equity, and sustainability of the system.
* Develop a conceptual and analytical framework that links the currently disparate areas of the food system and facilitates a comprehensive assessment of change pathways.
* Identify a suite of policy and program options for the *Food System Horizons* Initiative to pursue in partnership with industry and government.
* Contribute to developing the conceptual approach and operational engagement of the *Food System Horizons* Initiative.
* Integrate individual research into the broader vision and objectives of the *Food System Horizons* Initiative, evident through written contributions, presentations, and engagement in research proposals as an 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 CSIRO/UQ communications).
* When required, represent CSIRO externally, including to discuss 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.
* 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 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, systems science, geography, economics, social science, sustainability science.

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. Experience with the design and implementation of conceptual and or empirical research related to food system dynamics.
2. Familiarity with international debates on food system transformation and the role of innovation in these processes.
3. 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.
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.

## **Desirable**

1. Working knowledge and appreciation of the complexity 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. 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.

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## **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