# Position Details

## Research Scientist/Engineer- CSOF6

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| The following information is for applicants |
| Advertised Job Title | Systems Agronomist - Digital Integration |
| Job Reference | 93041 |
| Tenure | Specified Term of 3 years, Full-time |
| Salary Range | AU126k – AU$148k per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| Location(s) | Canberra, ACT |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates
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| Position reports to the | Team leader – Agrisensing Analytics |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Everard Edwards via email at everard.edwards@csiro.au or phone +61 8 8303 8649 |
| 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 Agriculture and Food seeks to appoint an Agricultural Systems Scientistwith experience in various aspects of digital agriculture, such as application of sensors, drones, big data acquisition, machine-learning, systems modelling and analysis or other computer/web-based informatics.

The focus of this position is to identify and initiate research into novel digital technologies and integrated into further research and commercial activities to improve Australia’s mixed farming systems. Using combinations of experimentation, modelling and monitoring of plot- and farm-level experiments we seek to address farm productivity by developing novel approaches and interventions to the sustainable intensification of agriculture.

The appointee will integrate CSIRO research activities and commercial opportunities to deliver impact to farming systems from our investment in digital technology at our research farms, particularly Boorowa Agricultural Research Station (BARS) in southern NSW, and other CSIRO research at both experimental and farm-scales. Emerging technologies in soil and crop sensing, and farming systems simulation will be linked to industry needs, along with developments in precision agriculture, zone management, phenomics and digital platforms that are now being widely promoted for industry application.

The appointee will complement existing CSIRO skills in soil-plant-animal systems research and drive new collaborative opportunities both within CSIRO and with external collaborators and investors. The position offers a unique opportunity to develop a national profile and reputation and to lead the application of digital technology to farming systems agronomy.

### Duties and Key Result Areas

* Develop and apply digital agriculture principles to inform crop and farm productivity in both a research and commercial farming context.
* Explore the application of remote and proximal sensor technology, up to continental scale, and connect with other agronomic research to build multimodal data assets that enable farming systems change.
* Collaborate with other staff in the Systems Program to develop, negotiate and lead new research projects that bring together skills across CSIRO, external partners and funding organisations.
* Develop science to underpin improvements in mixed farming systems in Australia, with a focus on improved agricultural decision-making for farm efficiency and profitability.
* Work effectively as an integral member and/or leader of a multi-disciplinary, regionally dispersed research team.
* Deliver and communicate research outcomes to partners and clients to facilitate implementation of findings and delivery of impact to Industry and publication of scientific papers in leading international journals.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A doctorate and or equivalent research experience in a relevant discipline area, such as quantitative research in farming systems agriculture (agronomy, crop/pasture physiology, soil science), natural resource management, environmental science or related discipline.
2. A record of innovation and creativity in the application of digital agricultural tools directed at agronomic and/or farming systems research with demonstrated industry impact in agricultural productivity and/or sustainability.
3. Demonstrated success in gaining funding for research projects, the capacity to develop and lead a research team, and collaboration with farmers, industry partners and research providers.
4. Willingness to travel regularly to regional and interstate meetings with collaborating scientists and industry partners as required.
5. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, grant applications or inventorship on patent applications.
6. Current, or willingness to obtain, a full Australian C Class drivers’ licence.

## **Desirable**

1. Direct experience with various aspects of digital agriculture, such as application of sensors, drones, big data acquisition, machine-learning, systems modelling and analysis or other computer/web-based informatics*.*
2. Evidence of effective and impactful international collaborations.
3. Experience managing commercial delivery of digital agriculture tools.
4. An understanding of the main drivers of productivity and profitability of dryland mixed farming systems in Australia.

## **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

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.

## **About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and <https://www.csiro.au/en/about/people/business-units/Agriculture-and-Food> 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