# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants |
| Advertised Job Title | Applied Economist – Input-Output Analysis |
| Job Reference | 96884 |
| Tenure | Specified Term of 3 yearsFull time |
| Salary Range | AU$110,038 – AU$119,080 per annum (pro-rata for part-time) plus up to 15.4% superannuation |
| Location(s) | Canberra (Black Mountain), ACT |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | All Candidates |
| Position reports to the | Team Leader, Sustainable Consumption and Production |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Heinz Schandl via email at heinz.schandl@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 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

The role of Research Scientist/Engineer staff is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. They may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. They will also have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

As part of the ‘Sustainable Consumption and Production (SCP)’ Team, the Applied Economist will undertake research that informs the understanding of the importance of economic processes of consumption and production for environmental outcomes. This is a key area of applied economics and of environmental policy, necessary to inform and navigate sustainability transitions at scales from local to global. In their research, the Applied Economist will make use of their expertise in environmentally extended input-output analysis to develop a comprehensive view of the interconnections between industries and the environment within both the Australian and global economies. This will provide insights into the relationship of economic activity and environmental pressures and impacts from an environmental footprint perspective. The research will inform industry, government and community regarding decisions. Empirical insights to aid this include the calculation of footprints and the quantification of embodied materials, waste, and emissions, within an applied economic-environmental analysis framework, thereby providing vital insights for assessing and mitigating environmental and social impacts.

The work of the SCP team blends innovative social processes with robust data-driven tools and approaches to assist policy, business and infrastructure planning and material decisions in procurement regarding their climate, waste and toxicity outcomes and informs decisions that achieve optimal ecological and health outcomes.

The research results will be used for decision making in several key areas of environmental economic policy and in business decisions supporting the domains of achieving net zero GHG emissions, waste reduction and a circular economy.

The data and indicators developed by the research will aid the shaping of economic and social transitions to a circular economy and net zero emissions.

### Duties and Key Result Areas

* Apply specialist technical skills in economics and environmentally extended input-output analysis to inform decision making to reduce environmental impacts and improve sustainability outcomes.
* Apply existing I-O frameworks such as the GLORIA database and develop nested I-O tables for subnational analysis, urban analysis embedded in global supply chains.
* Identify environmental footprints for different environmental pressures and impacts for different economic sectors, provision systems and final demand categories.
* Work collaboratively as part of a multi-disciplinary research team, developing strong working relationships and a focus on integration, in support of CSIRO’s science and impact objectives.
* Under the supervision of more senior researchers, assist in the planning and preparation of research proposals and carry out research investigations, requiring originality, creativity and innovation.
* Draw on professional expertise, knowledge of other disciplines and research experience to recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines.
* Communicate research results to clients and the scientific community through oral and written reports and represent the organisation in external science forums as required.
* Engage openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration principles, and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm safety goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as environmental economics, ecological economics or industrial ecology.
2. Demonstrated skills in environmentally extended input-output analysis, and skills in hybrid analysis of EE-IO and LCA.
3. Demonstrated ability to undertake I-O analysis using MATLAB or a commensurate platform.
4. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
5. A demonstrated history of authorship of scientific publications in relevant peer reviewed scientific journals and/or reports, as well as grant applications, and tool development.
6. A record of accomplishment in communication of research findings and application of data-driven science and technology to inform decision making.

## **Desirable**

1. Ability and willingness to travel within Australia as well as internationally, as required.

## **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 responses by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **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 change.

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 (<https://ielts.com.au/>).

## **About CSIRO**

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