# Position Details

## Technical Services- CSOF4

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| The following information is for applicants |
| Advertised Job Title | Software Engineer/Data Engineer |
| Job Reference | 100961 |
| Tenure and work schedule | IndefiniteFull-time (**preferred**)*We will explore options for part-time and flexible work arrangements based on needs of the role and individual circumstances.* |
| Salary Range | AU$96,811 – AU$109,527 per annum plus up to 15.4% superannuation |
| Location(s) and office arrangements | Hobart, TAS |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents only |
| Position reports to the | Team Leader, Information and Data Centre, NCMI |
| Client Focus – Internal | 90% |
| Client Focus – External | 10% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Katherine Tattersall, Group Leader – Integrated Data Systems, via email at katherine.tattersall@csiro.au or phone +61 3 6232 5137 |
| Support and workplace adjustments | We offer a range of reasonable supports and workplace adjustments. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner) if we can help you to equitably participate in our recruitment process or the role itself. |
| 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 |

**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).

### About CSIRO

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology. Many of our iconic innovations were once considered impossible until someone, just like you, joined us and took on the challenge.

As one of the world’s largest multidisciplinary mission-driven research organisations, we are focused on the issues that matter the most: for our quality of life, for the economy and for our environment. We believe diverse teams are more effective and deliver more innovative outcomes. When we all focus on the big things that really matter, and work in partnership with our communities and [Indigenous Australia](https://www.csiro.au/research/indigenous-science), Australian science and technology can solve seemingly impossible problems and create new value for all Australians. Visit [CSIRO.au](https://www.csiro.au/) for more information.

### Role Overview

The role of Technical Services staff in CSIRO is to provide support for scientific research in a diverse range of laboratory and field situations across a range of different research projects. This support consists of the application of accepted technical practices and the development of new practices. The work is usually carried out as a member of a centralised service.

The Software Engineer in the Information and Data Centre (IDC) is a technical role with responsibilities for the development, uplift, and maintenance of future data science and publication platforms for NCMI IDC and our stakeholders, including the Marine National Facility (MNF).

The role will work in the Integrated Data Systems (IDS) Group, which is part of the Engineering and Technology Program within CSIRO National Collections and Marine Infrastructure (NCMI). At NCMI, we manage MNF data from the Research Vessel Investigator, infrastructure, and biological collections for the benefit of research and industry.

Working in the IDC team, the Software Engineer will develop, deploy, and maintain innovative web tools and data infrastructure systems for the curation, description, and dissemination of scientific data.

### Duties and Key Result Areas

* Contribute to innovative products and services to increase the usability of MNF and other scientific data sets.
* Design, develop, deploy, and maintain data and information systems, services and web-based tools for the management and visualisation of a wide range of scientific data, adding value to the data collections.
* Use data and software engineering best-practices, such as version control, continuous integration, automated test suites and work item tracking software during daily activities.
* Liaise with key stakeholders within CSIRO and nationally. This includes working with data providers and recipients and other experts concerning technical aspects of data interoperability, collection, processing, metadata, publication, and archiving.
* Undertake a wide variety of tasks that have a high degree of technical difficulty.
* Document procedures and train staff and clients in systems and processes as required.
* Address problems where methods are not defined and use initiative to seek new approaches to meet client needs and improve the services provided.
* Participate in the planning of projects and accept responsibility for carrying out major parts of the project, including data analysis, and typically make significant contributions to the interpretation and communication of results.
* Communicate openly, effectively, and respectfully with all staff, clients, and suppliers in the interests of good business practice, collaboration, and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team and business unit to carry out tasks in support of CSIRO scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy and diversity initiatives.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. Relevant bachelor’s degree or equivalent relevant work experience in Information Technology or a related scientific field.
2. Demonstrated ability to contribute to technological decision-making processes, process improvement, and software development tasks.
3. Experience in applying software engineering best-practices, such as version control, continuous integration, automated testing, and work item tracking software.
4. Demonstrated computing skills and experience in:
	1. Refactoring existing systems and developing software using modern programming languages.
	2. Understanding frameworks, libraries, and languages relevant to the development of data systems and web-based applications.
	3. Design and development of RESTful APIs and web services.
	4. Windows/Linux server administration and support.
5. Demonstrated ability to plan and effectively deliver software and/or data management projects within a multi-disciplinary team.
6. Demonstrate effective communication skills including the ability to work within a cooperative team and to articulate technical concepts to a diverse range of clients.

## **Desirable**

1. Experience of DevOps technologies including CI/CD and container orchestration for use in production systems.
2. Previous experience developing software applications for scientific domains. An understanding the principles of scientific data management including the development and use of controlled vocabularies, standard data formats, metadata, data archiving and publication.
3. An interest in working with biological data, imagery, or machine learning.
4. Familiarity with common geospatial tools, formats, standards, and publishing OGC compliant web services.
5. Database experience (e.g. Oracle, Postgres or equivalent).
6. Familiarity with development and/or administration of the GeoNetwork metadata application.

## **Not sure if you meet all the criteria?**

While it is CSIRO policy that the successful candidate must meet all the essential criteria, there are many ways to demonstrate this. Don’t let the list discourage you. If you are unsure about applying, please reach out to the contact on page 1 of this document so we can discuss the role further.

## **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:** Recognises 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.

## **Setting you up for success**

We understand that not everyone works in the same way and sometimes people may require reasonable support and adjustments to perform at their best. Whether related to the recruitment process and or the role itself, this may include options such as providing different methods of communication, flexible hours or physical adjustments to work methods. If you feel comfortable, we encourage you to share any support and adjustments you may need to carry out the inherent requirements of the role. Please let us know via email Piumi.Desilva@csiro.au (Piumi De Silva – Talent Acquisition Partner) if we can help you to equitably participate in our recruitment process or the role itself.

## **Life at CSIRO and flexible working arrangements**

We [work flexibly at CSIRO](https://www.csiro.au/en/careers/life-at-csiro/Flexible-work), offering a range of options for how, when and where you work.  We can discuss flexible work arrangements with you during the recruitment process. CSIRO also offers a range of leave entitlements, [benefits](https://www.csiro.au/en/careers/life-at-csiro/Benefits) and [career development](https://www.csiro.au/en/careers/life-at-csiro/Career-development) opportunities. To learn more, visit [Careers at CSIRO](https://www.csiro.au/en/careers).

We celebrate the uniqueness of our workforce and are committed to creating [diverse and inclusive teams](https://www.csiro.au/en/careers/life-at-csiro/Diversity-inclusion-belonging) where everyone feels they belong. CSIRO is an equal employment opportunity organisation dedicated to recruiting people based on merit, and reflecting the diversity of the community we serve. We recognise true diversity encompasses all ages, nationalities, abilities, cultures, genders, sexualities, faiths, levels of education, diversity of thought and many more aspects of identity. By empowering diverse teams, our community is reflected in the solutions we create.

## **CSIRO values**

CSIRO is a values-based organisation committed to values-based leadership.

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| **Value** | **Descriptor** | **Behaviour** |
| **People first** | Our priority is the safety and wellbeing of our people. We believe in, and respect, the power of diverse perspectives. We seek out and learn from our differences.  | * Respectful
* Caring
* Inclusive
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| **Further together** | We achieve more together than we ever could alone. We listen and collaborate, in teams, across disciplines, across boundaries. We embrace ambiguity and use discussion and persistence to generate unique solutions to complex problems. | * Accountable
* Authentic
* Courageous
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| **Making it real** | We do science with real impact. We thrive when taking on the big challenges facing the world. We take educated risks and defy convention. We celebrate successes and failures and leverage them to learn as we strive to be the force for positive change. | * Partnering
* Cooperative
* Humble
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| **Trusted** | We’re driven by purpose but remain objective. We fight misinformation with facts. We earn trust everywhere through everything we do. We trust each other and we hold each other accountable. Together our actions drive Australia’s trust in CSIRO. | * Curious
* Adaptive
* Entrepreneurial
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## **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).

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.