

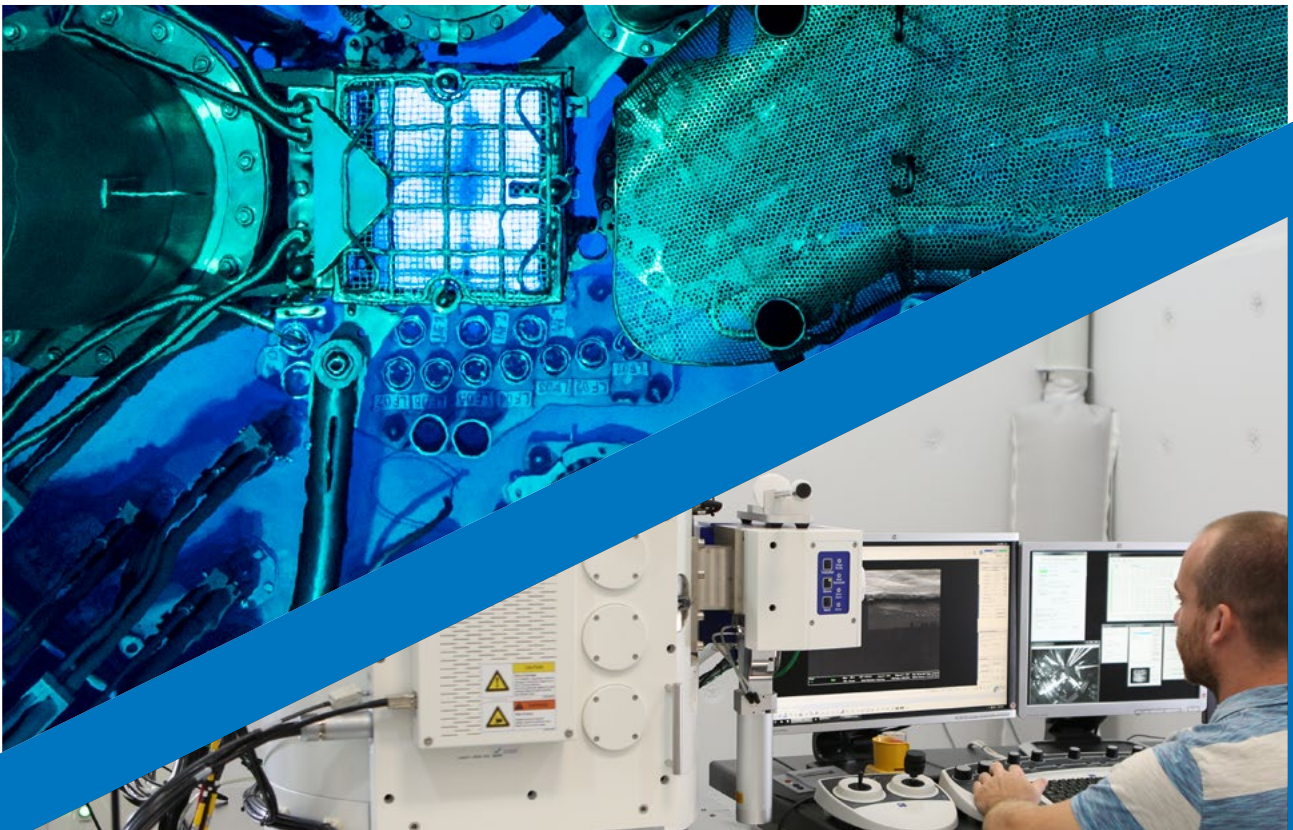


RECRUITMENT

Director, Nuclear Materials Research and Technology Group

Candidate information

July 2023



Science. Ingenuity. Sustainability.

Welcome | Introduction

ANSTO is seeking to appoint a foundational Director for a newly formed functional group within ANSTO's Nuclear Science and Technology Division – the Nuclear Materials Research and Technology Group. This new group brings together three existing business units – Nuclear Fuel Cycle Research, ANSTO Synroc and the Nuclear Materials Development and Characterisation research infrastructure platform.

ANSTO research addresses key scientific questions related to both the current generation of nuclear reactors and future systems, and this research underpins the provision of informed advice to the Australian Government on nuclear technologies and nuclear waste. The rapid advances in the areas of fuel, spent fuel and nuclear materials for the new generation of advanced nuclear systems, such as small modular reactors, require continuous engagement with the international research community, and flexibility and focus of our research to keep abreast with rapidly developing knowledge. Our researchers have made a major contribution to the development of the ANSTO Synroc waste treatment technology, and they support critical activities such as the operation of the OPAL reactor and the production of nuclear medicine in ANSTO's nuclear precinct.

We are seeking a talented individual who will provide scientific and technical leadership, with a particular focus on excellence, collaboration and raising the profile and impact of our Nuclear Materials research with key stakeholders. It is expected the Director will be people focused and be a visible change agent who can guide their team through cultural and structural change. The Director will have an internationally recognised leadership profile in a relevant Nuclear Materials-related field of research, and expertise at a senior level in leading and managing diverse research teams. They will also have experience in integrating technology and capability management with research and science programs.

Measures of success will include excellence and impact of scientific and research outcomes, value of solutions to industry, the diversity of collaborations and partnerships, and the continued development of world-class capabilities.

We believe diversity drives innovation and ingenuity and forms the principles guiding how we build our teams, cultivate leaders and create an inclusive workforce.

I invite you to explore this opportunity to join ANSTO and lead our efforts in using nuclear science and technology to help protect our environment.



Andrew Peele

Group Executive,
Nuclear Science and Technology



ANSTO

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers to apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment.

ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

ANSTO's Lucas Heights campus is located 30 minutes drive from the picturesque Cronulla Beach.



Vision

Nuclear science and technology for the benefit of all Australians.
We deliver knowledge, value and trust through the application of nuclear science, technology and engineering.

ANSTO Values

ANSTO's values underpin our vision, capabilities and strategic objectives and are critical to how we carry out our work.



Safe. Secure. Sustainable.

Three key principles that underpin everything we do and every decision we make

Curiosity

Harness our curiosity to explore new opportunities and create an environment where ideas can thrive

Leadership

Ownership, accountability and working with integrity to inspire and motivate others

Excellence

Consistently delivering high value outcomes and looking for ways to improve the quality of our performance

Working Together

Success through collaboration, team work and a sense of collective purpose

Trust + Respect

An inclusive environment that's built on our trust and respect for each other's contributions and capabilities

Diversity and inclusion vision

Vision:

ANSTO seeks to create a culture of inclusion, where our diversity of thought and differing perspectives are a source of organisational agility, resilience and renewal. We provide empowering and effective work-based policies that support flexibility and the individual needs of our employees, including flexible work practices and family-friendly programs.

Gender Equity:

ANSTO was awarded an **Athena SWAN Bronze Institution Award** in December 2018, an acknowledgment of our dedication to improving workplace equality and inclusion.

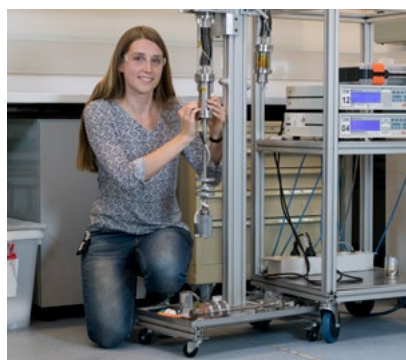
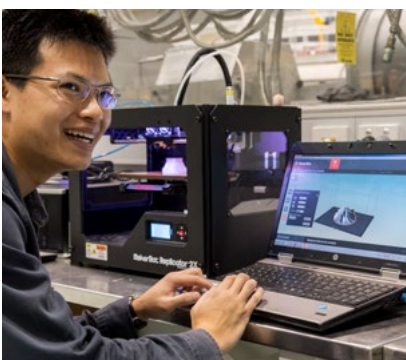
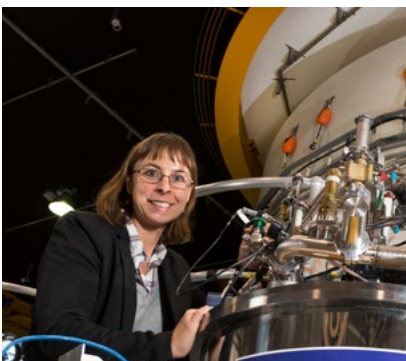
LGBTQI:

Our LGBTI Staff network's mission is to provide support, networking and advocacy to gender diverse and same-sex attracted people at ANSTO. Our network provides input into ANSTO policies and visibility to gender diversity and LGBTQI+ issues.

Indigenous Australia:

ANSTO acknowledges the traditional owners of the lands of each of our campuses and the unique cultural significance of the area in the past, today and into the future. The ANSTO **Reconciliation Action Plan (RAP)** is supporting our vision to foster relationships between Australia Aboriginal and Torres Strait Islander peoples and other Australians in the organisations with whom we partner; and to create opportunities for Aboriginal and Torres Strait Islander peoples to showcase their own abilities which leads them towards self-determination.

ANSTO seeks to create a culture of inclusion, where our diversity of thought and differing perspectives are a source of organisational agility, resilience and renewal.



Nuclear Materials Research and Technology Group

ANSTO is a leading global nuclear science and technology organisation delivering world-class research and expertise to benefit Australia and support a more sustainable world. Delivering excellent and impactful research based on nuclear science and technology, ANSTO is addressing Australia's national priorities, providing advice to government on nuclear technologies and contributing to the development of a nuclear workforce.

ANSTO's Nuclear Science and Technology Plan is built around four Science Impact Areas:



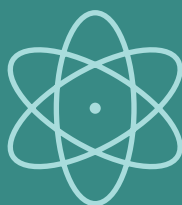
Health



Environment



Nuclear materials



Research infrastructure

Each science impact area is supported by critical infrastructure, skill sets and experience, which represent ANSTO's core sovereign capabilities in nuclear science and technology. Our research, and the research of those who use our infrastructure, relies on nuclear science and technology that can only be delivered by ANSTO. The Nuclear Materials Research and Technology Group is a newly formed functional group within ANSTO's Nuclear Science and Technology Division. It brings together three business units – **Nuclear Fuel Cycle** research, **ANSTO Synroc®** and the Nuclear Materials Development and Characterisation infrastructure platform.

Nuclear Fuel Cycle Research

As the operator of Australia's only nuclear reactor, a multi-purpose research reactor, our Nuclear Fuel Cycle (NFC) researchers address key scientific questions related to both the current generation of nuclear reactors and future systems. Our main objectives are to build knowledge of fuel processes, structural integrity at high temperature and under intense radiation, and contribute to safer radioactive waste management.

Our key focus areas include:

- advancing the understanding of the management of spent fuel and associated waste forms
- investigation of materials for use in nuclear systems, structures and components, and the effects of irradiation, corrosion and high temperature on their structural properties
- the development of improved fuels for advanced reactor designs

NFC research takes advantage of ANSTO's unique capabilities including specific expertise in waste forms, theoretical predictions of fuel properties, and expertise in modelling the properties of advanced materials under extreme conditions. All aspects are important in the nuclear industry. The progress that has been made on the properties of accident-tolerant and other advanced fuels has strengthened scientific collaborations with industry and other research groups with the potential for commercial linkages.

NFC researchers have made a significant contribution to the development of the ANSTO Synroc waste treatment technology, and they support other critical activities at ANSTO such as the operation of the OPAL reactor and the production of nuclear medicine in ANSTO's nuclear precinct. At a higher level, ANSTO provides timely and comprehensive advice to Government on nuclear technologies and represents Australia on the Generation IV International Forum. The forum supports collaborative long-term research on advanced nuclear power reactor technologies, which are safer and more sustainable.



ANSTO Synroc®

ANSTO Synroc® seeks to be recognised as a trusted and innovative technology solution provider delivering value and outcomes to our clients and partners for the safe treatment of globally challenging wastes. We have established technical skills and engineering expertise in nuclear waste treatment to develop tailored solutions for radioactive wastes. Our major focus is the realisation of ANSTO's first of a kind waste treatment plant – the ANSTO Synroc® Waste Treatment Facility – with ANSTO Synroc being the technology providers for this facility.

ANSTO Synroc® has a demonstrated track record for the delivery of world-class translational research. This research is particularly focused on the development of solutions for the treatment of challenging nuclear wastes. As part of the delivery of this research, our team comprising materials scientists, industrial chemists, and characterisation experts undertake fundamental studies in nuclear wastefrom design and performance assessment, including performance and interactions within the disposal environment, to understand and demonstrate their applicability to challenging waste streams.

The research and development conducted by this team focuses on conceptual studies typically at low Technology Readiness Level which is further leveraged and developed by the engineering team during technology maturation to develop industrialised waste processing solutions. This intimate link between wastefrom research and process engineering development provides a holistic technical solution for the direct disposal of radioactive waste.

The ANSTO Synroc® team is uniquely skilled to provide scientific, technical, and engineering expertise in nuclear waste treatment to support internal stakeholders and to provide advice to government agencies, as well as inter-governmental programs in the treatment of wastes such as those arising from nuclear medicine production. We harvest the value of our embodied nuclear knowledge by undertaking research consultancy with international agencies seeking to find a sustainable solution for their inventory of wastes.

Nuclear Materials Development and Characterisation

The Nuclear Materials Development and Characterisation (NMDC) research infrastructure platform supports ANSTO's core functions and maintains a sovereign capability in nuclear materials processing and characterisation for Australia. The platform is the only licenced and permitted infrastructure in Australia with expertise to handle a wide range of complex radioisotopic, physical and chemical forms of materials.

NMDC enables the synthesis, processing, engineering, and characterisation of the structure-property relationships of nuclear relevant materials. Both radioactive and non-radioactive work can be conducted within its large suite of material processing and characterisation infrastructure. Engineering of materials up to the pilot plant scale is a unique feature, which involves expert skills, specialised instrumentation, and facilities to ensure safety.

The group is predominantly directed to fulfilling ANSTO's nuclear materials research and waste form development projects, business and operational needs. It provides some services directly to commercial clients, other national laboratories and international agencies.



Position summary

As the Director of the Nuclear Materials Research and Technology Group at ANSTO, you will provide overall scientific and technical leadership across the Nuclear Fuel Cycle, ANSTO Synroc and Nuclear Materials Development and Characterisation business units, delivering mission-based translational research programs that utilise ANSTO sovereign nuclear capabilities to address nuclear materials challenges and contribute to a safer and sustainable nuclear industry. You will be responsible for best-practice management of the group's scientific infrastructure, facilities and assets. You will ensure effective and efficient integration of the research programs with the operations and capability development of the technology, to maximise impact and benefits delivered by the group to key stakeholders. As a key member of the NST Leadership team, this position will provide you an opportunity to contribute to ANSTO's research and development strategy and policy.

We are seeking an inspirational leader who is able to:

- Demonstrate significant research and operational expertise, be a strong leader and advocate for excellent research through the application of nuclear science and technology in the field of Nuclear Materials research.
- Support ANSTO in the delivery of high-impact, strategic national interest research.
- Lead and manage scientific and technical teams across multiple disciplines.
- Foster a culture of high-performance that encourages innovation, improves productivity and promotes teamwork and collaboration.
- Be a visible change agent, and guide their team through cultural and structural change.
- Employ strong engagement skills and manage strategic relationships with a wide range of stakeholders including industry, government agencies and universities.
- Promote and develop a highly innovative and business orientated approach to both the technical and commercial aspects of facility operations and management.
- Attract, retain, empower and develop world-class talent, to promote wellbeing and drive cross organisational capability.
- Successfully develop and implement business plans which stem from a consistent and encompassing organisational strategy and preparing for the future.
- Demonstrate values and behaviours that are exemplary, actively promote positive behaviours, collaboration and high performance.

The position offers an opportunity to apply relevant experience and professional skills in a leadership role, inspire and lead in an operational environment that utilises well networked and connected groups using communication, ideas and projects to enhance research, innovation and development.

The position will be appointed as ongoing, full-time. A competitive salary package will be offered commensurate with qualifications and experience.

The position offers an opportunity to apply relevant experience and professional skills in a leadership role, inspire and lead in an operational environment that utilises well networked and connected groups using communication, ideas and projects to enhance research, innovation and development.

Key accountabilities

Leadership

- **Active research profile:**
Continually maintain a strong and recognised external leadership profile by having an ongoing and active research involvement in the relevant field of the Group's research program(s).

- **Active research leadership and activity:**
Develop, lead and deliver a range of high quality, cost effective research and capability development programs and projects that meet ANSTO's objectives, build research capacity and achieve increased research and operational/capability performance and outcomes.

- **Integration:**
Ensure the delivery of research and operational excellence within the Group by fostering a culture of high-performance; encouraging innovation, integration, improve productivity and promotes teamwork and collaboration.

- **Management of technology:**
Ensure the continued development of world-class research infrastructure and capabilities to enable the successful research activities of the Group.

- **People:**
Lead programs to develop the capabilities, skills, and expertise of employees within the Group including development of leadership and career pathways.

- **Operational management:**
Broker scientific knowledge and maintain the highest standards of open communication, collaboration, data and knowledge management.

- **External relationships and networks:**
Develop and maintain a range of collaborative networks across NST/ANSTO and externally, to: support and advance the delivery of research programs and projects; share knowledge; and deliver outcomes from partnered research that is mutually beneficial and has impact.

Strategic Planning

- **Active research profile, Active research leadership:**
Provide expert and authoritative scientific advice and support to the Group Executive, NST on the development, implementation, management and reporting of programs, ensuring they are fully briefed on the status of science and that technical and/or scientific priorities and innovations are properly considered.

- **Active research leadership, External relationships:**
Develop and implement strategies for diversifying and increasing the Group's revenue, identify external funding opportunities to support enhanced delivery of outcomes and to leverage additional value through collaboration with external stakeholders.

- **Management of technology, Operational management:**
Develop and implement the Group's objectives, plans, targets and activities to deliver outcomes that achieve ANSTO's research and technology strategy.

Management and Resourcing

- **Active research leadership, Operational management:**
Encourage and support a project management approach to the management of research and technology projects, provide oversight and direction with the ongoing monitoring, reviewing and timely completion of projects, consistent with project deliverables.

- **Management of technology:**
Deliver best-practice management of scientific infrastructure, facilities, equipment through an asset management framework and improvement program to ensure reliability of assets, productivity and availability. Ensure operational safety, security and sustainability and compliance with applicable standards, legislative and regulatory requirements.

- **Integration:**
Ensure effective and efficient integration of the research programs with the operations and capability development of the technology, to enable both functions to work in a coordinated manner to maximise the output of the Group.

- **Operational management:**
Manage and oversee all aspects of the Group's research programs and research capabilities; including endorsing project plans, identifying and allocating resources, developing budgets, and control and management of financial performance.

- **People:**
Overall leadership of the Group's human resources through selection, training, development, performance management and review, recognition and guidance of managers and staff; ensure the sustainability of the research and technology group through succession and workforce planning, talent management and employee development activities.

Selection criteria

1. PhD in a scientific field directly relevant to the research objectives of the Group, with recent (and ongoing) experience and record of outstanding research accomplishments in that field.
2. A reputation and profile in the relevant external scientific and technological communities commensurate with the position of scientific leader of the Group.
3. Demonstrated experience in, and commitment to, effective application of research to industry, government and/or clinical needs.
4. Demonstrated success in integrating technology and capability management with research and science programs, including the coordinated focus on internal and external focussed programs.
5. Demonstrated strategic thinking and planning skills and experience, and the capacity to develop innovative solutions to complex, multi-faceted issues.
6. Demonstrated experience in developing and implementing innovative, targeted, cost effective research programs and projects to build research capacity and achieve increased research performance and outcomes.
7. Demonstrated success at a senior level, in leading and managing diverse research teams or multiple research programs, and experience guiding, developing and mentoring staff to deliver optimal research outcomes.
8. Demonstrated capacity to attract new and additional funding for programs and/or maximising returns on investment.
9. Demonstrated ability to initiate and manage change, allocate resources effectively, and identify and manage risks.
10. Demonstrated experience in managing effective relationships with key stakeholders.
11. Sound understanding of finance and accounting principles and financial management systems.
12. Excellent communication, interpersonal skills, negotiation and influencing skills.



Application process

A selection committee has been appointed to assess candidates against the requirements of the role and identify the widest possible field of qualified candidates.

Applications should consist of a full **curriculum vitae** detailing academic and professional qualifications, full employment history and relevant achievements. This should be accompanied by a **cover letter** summarising how candidates meet the selection criteria outlined in the full position description, why the appointment is of interest and what they believe they can bring to the role.

To apply please use **ANSTO's online application portal**. A full position description is also available through this link.

As part of this process, candidates may be invited to communicate with ANSTO representatives in person or by video conference. Candidates whose skills and experience are considered suitable to progress may be required to undertake additional assessment of skills, knowledge, abilities and aptitude. It is expected final shortlisted candidates will be invited for final interviews at ANSTO in September 2023.

All applications must be submitted online.

To be eligible for appointment, applicants will be required to undertake a security and medical assessment.

The closing date for applications is **Monday 31 July 2023 at 11:30pm AEST**.

For queries in relation to the recruitment and selection process

Contact

ANSTO's talent acquisition team:

PHONE +61 2 9717 3359

For inquires in relation to the position

Contact

Andrew Peele:

PHONE +61 3 8540 4283

EMAIL andrew.peele@ansto.gov.au

Note:

For international phone calls please be aware of the **local time in Sydney** to ensure your calls are answered.



Curriculum vitae

Cover letter



Online application



Closing date for applications
Monday 31 July 2023
11:30pm AEST



Selection committee



Shortlist of candidates
August 2023



Interviews



Security assessment



Medical assessment

Living in Sydney

Geography

Sydney is the capital city of New South Wales – and is the largest city in Australia with a population of more than 5 million people and a metropolitan area of 12,367.7km². The *Mercer Quality of Living Survey* has ranked Sydney as tenth in the world in terms of quality of living, for the last six years, making Sydney one of the most liveable cities.

The Sutherland Shire, in which ANSTO's main Lucas Heights campus is based, covers 369 km² and has a population of approximately 227,000 people. Located just 25km from Sydney's CBD the region is predominately a residential area, but also has substantial industrial, commercial and recreational areas.

The Shire, as referred to by locals, offers a stretch of pristine beaches, four spectacular national parks and channels of sparkling waterways. The area hosts an urban hub of buzzing cafés and restaurants, leading fashion retailers, art galleries and season events and offers an ideal mix of coastal relaxation and cosmopolitan luxury.

ANSTO Lucas Heights campus

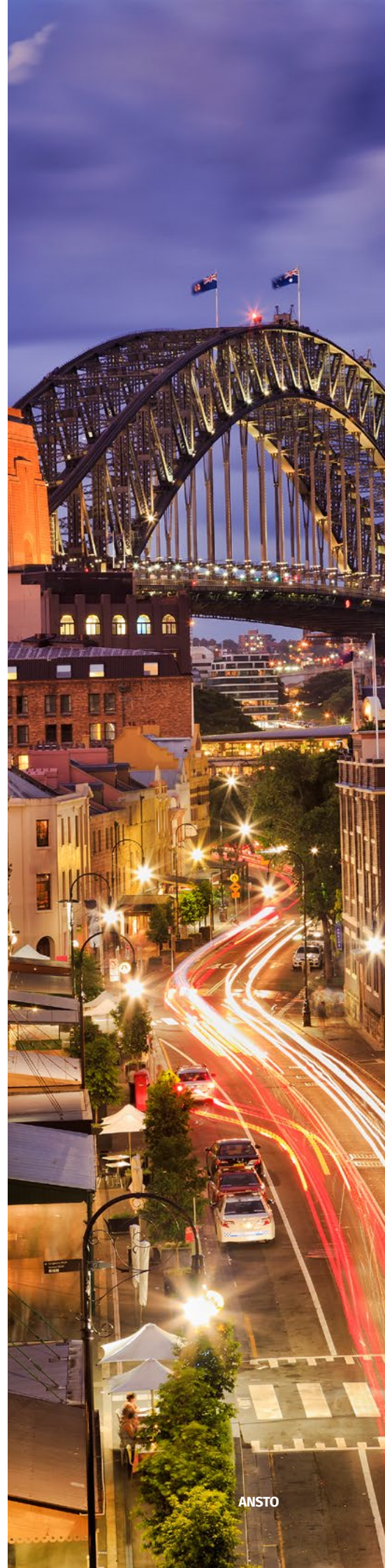
ANSTO is one of the major employers for the Sutherland Shire with over one third of our 1200 staff living in the local community or nearby St George area.

The campus is located at Lucas Heights which is approximately 35km south-west of the Sydney CBD and the neighbouring suburb of Menai provides access to cafes, shops, cultural and sporting facilities.

ANSTO is a unique organisation, offering a significant breadth and variety of job opportunities. At ANSTO you will work with some of Australia's brightest minds and have the opportunity to shape a career that matches your talent, goals and interests.

ANSTO regards professional development as essential for employee and organisational growth, the organisation is committed to providing opportunities which enhance the professional and technical skills of employees.

ANSTO offers an attractive range of employment conditions and support to employees at different stages of their careers including: flexible working arrangements, salary sacrifice/salary packaging benefits, competitive salaries, good working conditions and generous superannuation. We also offer an extensive range of leave provisions to help employees balance work and personal commitments including four weeks paid recreation leave each year, long service leave after 10 years of continuous service, paid maternity and parental leave and generous general (illness, carer's, emergency and cultural) leave provisions as well as regular onsite employee health and wellbeing programs and a number of opportunities for sport and exercise.



**Thank you
for your interest
in the position**



Australian Government



Lucas Heights | Clayton



www.ansto.gov.au

July 2023