



## POSITION DESCRIPTION

<b>Position Title:</b>	Manager, Beamline Group
<b>Cluster / Business Unit</b>	Nuclear Science & Technology and Landmark Infrastructure – Research Infrastructure
<b>Division / Section:</b>	Australian Synchrotron - Science
<b>Classification:</b>	Band 8
<b>Position Description Number:</b>	PD-1911
<b>Work Contract Type:</b>	Manager / Science Professional

### POSITION PURPOSE

The *Manager, XYZ Beamline Group*, is a manager/ science leader of a collective group of instruments within the Australian Synchrotron Science division. The role has oversight for the staffing, operation and development for synchrotron beamlines within their assigned beamline group, as well as research, industry engagement and outreach activities. The role is central to ensuring effective interactions and resourcing across the specific beamline group, as well as excellent engagement with other members of the Science Team and other operational teams across the facility. The role will be required to understand the requirements, abilities and capabilities of the staff, techniques and instruments within the specific beamline group and apply expert knowledge to enable the best possible scientific outcomes. The role has significant input into scientific development at the Australian Synchrotron through strategic planning and coordinating the planning for new beamlines.

### ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and 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.

Nuclear Science & Technology and Landmark Infrastructure (NSTLI) incorporates ANSTO’s research, innovation, landmark research infrastructure, and associated platforms and capabilities. NSTLI conducts research and development in relation to nuclear science and technology, and connects people, transfers knowledge, and provides nuclear-based products and services for the benefit of Australia.

The Australian Synchrotron provides world-leading technical capability, and the nucleus around which new science and industry networks form as researchers interact. The synchrotron delivers better and faster experimental techniques that not only enhance current fundamental and applied research, but also open up new avenues of investigation to Australian science. The facility promotes international collaboration to enable leading-edge research and development, and is a hub for research that greatly benefits Australia and its regional neighbours.

The Science Team provides world-class user service and synchrotron expertise to users of the Australian Synchrotron, including academic-based researchers, commercial and industry clients. This includes ensuring delivery of support to users through a range of services and support for access to the operational beamlines within the facility. Members of the Science Team collaborate with other ANSTO teams to maintain world-class beamlines and to develop new capabilities and systems (including new beamlines for the facility). They achieve high impact research outcomes in line with ANSTO’s research mission and through collaborations with the Australian Synchrotron user community. Science Team members also deliver highly effective outreach and training outcomes to promote the capabilities and achievements of the facility.

## **ACCOUNTABILITIES & RESPONSIBILITIES**

### **Key Accountabilities**

- Lead and manage a beamline group within the Science Team to deliver high-quality, cost-effective user-service, research and industry outcomes.
- Monitor and report on the science, research and operations activities of the beamline group according to overall research strategies and relevant performance metrics including material for the annual Science Advisory Committee review. Contribute to Australian Synchrotron, NSTLI and other ANSTO-focused operational reports as required.
- Foster a culture of high performance that encourages innovation, improves productivity, and promotes teamwork and collaboration. Model appropriate and professional behaviour in the workplace and manage people matters proactively.
- Lead and manage safe working practices, policies and processes across the beamline group, across the whole facility, and within ANSTO to ensure that users, staff and visitors are working in a safe environment. Lead improvements to ANSTO's safety culture.
- Assign specific beamline responsibilities to designated group members as required.
- Undertake additional duties as required.

### *People Management*

- Manage, coach and mentor the beamline group staff (including students and postdoctoral fellows) to achieve personal career, and other organisational objectives, and foster a culture of high performance that encourages innovation, improves productivity and promotes teamwork and collaboration.
- Manage staff processes including recruitment, training, mentoring, performance management and review, workforce and succession planning, recognition and talent management.

### *Budget Management & Reporting*

- Undertake budget planning and reporting process.
- Manage the beamline group expenditure in support of operations, maintenance and developments, research and professional activities to ensure correct allocation of funds in support of world-class operational and research outcomes, in-line with ANSTO's policies and procedures.

### *Instrument Operation & Maintenance*

- Manage and coordinate the deployment of staffing, operational funds and resources in support of world-class user operations and scientific research.
- Manage day to day operation of group beamlines, ensuring beamlines operate and are maintained to appropriate standards and plans. Provide expert and detailed beamline knowledge to facilitate the Asset Management Plan, which includes maintenance, calibration, and documentation.

### *Instrument Development*

- Maintain and apply knowledge of industry best practice and technological developments to ensure instrument capabilities are improved and upgraded and kept at state of the art to remain internationally competitive.
- Coordinate beamline development activities and projects to improve and expand capabilities for research and industrial applications including alternative sources of funding for development activities.
- Contribute to the development of plans and processes for the installation of new beamlines, facilities and capabilities.

### *User Programme/Support*

- Ensure that world-class user support is delivered to academic, industrial and commercial clients.
- Ensure that technical feasibility and safety reviews of proposals are completed, and ensure that administrative tasks related to the user programme are satisfactorily completed.

- Work with members of the beamline group to provide expert knowledge to support the development of the user community through the beam-time proposal process, beamline experiments, data analysis processes, and beamline-based user training.

#### *Research*

- Initiate and conduct leading-edge research of international standard which increases beamline demand and standing.
- Use networks to collaborate with national and international scientists/engineers to produce world-class research outcomes captured in leading international journals. Participate in grant applications with collaborators and partners.
- Coordinate research activities that lead to scientific capability development.
- Apply expert knowledge in order to facilitate contributions from across the beamline group to ANSTO / NSTLI-led mission-based research programmes.

#### *Industry*

- Coordinate industry engagement activities across the beamline group to enable the delivery of optimal outcomes to industry and commercial clients to meet revenue targets whilst enhancing the Australian Synchrotron's reputation.
- Support the beamline group to promote techniques, capabilities and applications to industry and commercial clients to identify industry leads and convert them to opportunities and contracts.

#### *Outreach*

- Promote, develop and manage outreach activities across the beamline group, and on behalf of the Australian Synchrotron and ANSTO. Participate in professional forums, steering committees, and other professional associations. Highlight the impact and benefits of the facility to the scientific community, external stakeholders, and general audiences at the local and international level. Identify, attract, engage and develop new users of the facility.

#### **Decision Making**

- The ANSTO values, corporate plan, business plan, and operational excellence program provide the context for the position.
- The position works within a framework of legislation, policies, professional standards and resource parameters. Within this framework the position will be provided with the parameters in which to manage and operate the group of beamlines including project planning, resource allocation and resolution of issues. The position has independence in determining the tasks and activities required to achieve day-to-day operational outcomes.
- The position is fully accountable for the accuracy, integrity, and quality of the content of advice, analysis and interpretation provided and is required to ensure that prescribed facilities and activities are compliant with regulations.
- Determines daily work priorities within the context of agreed work plans and schedules and will consult with their line manager on complex, sensitive and major issues that have a significant impact on the beamline or facility operations.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

#### **Key Challenges**

- Balancing resources to ensure world-class user service, and beamline maintenance and development activities
- Maintaining an active involvement as a researcher with instrumental-development and research project/s.

- Appropriately balancing responsibilities as a manager of the assigned beamline group and contributing as a beamline and research scientist.
- Ensuring timely completion of facility wide projects, given limited resources and tight deadlines for completion.
- Competing for key resources within the organisation given the need to deliver specific outcomes for projects and operational activities to tight deadlines for a disparate range of internal and external stakeholders
- Through effective management and negotiation, facilitate the deployment of engineering, controls and computing, and technical resources when and where required.

## KEY RELATIONSHIPS

Who	Purpose
<b>Internal</b>	
Senior Principal Scientist - AS	<ul style="list-style-type: none"> <li>• Receive guidance and direction</li> <li>• Provide expert, strategic and evidence based advice</li> <li>• Staff engagement and quality recruitment</li> <li>• Negotiate, manage and report on budgets and resources consistent with strategic and operational plans and goals</li> <li>• Recommend and gain endorsement for plans and goals and other initiatives</li> </ul>
Work area peers	<ul style="list-style-type: none"> <li>• Provide expert advice and analysis on a full range of matters</li> <li>• Lead group decision making processes, planning and goals</li> <li>• Coordinate, collaborate and share accountability</li> <li>• Negotiate and resolve conflicts</li> </ul>
Direct Reports	<ul style="list-style-type: none"> <li>• Provide leadership, guidance and support for members of the beamline group</li> <li>• Set performance requirements and manage performance and development</li> <li>• Engage to monitor trends, performance and progress against the business/operational plans and evaluate further support which may be required to ensure delivery against the plan</li> </ul>
Australian Synchrotron Management Team	<ul style="list-style-type: none"> <li>• Communicate and collaborate to strengthen working interactions between the Accelerator, Engineering, Controls, Project Management and Science teams.</li> </ul>
Managers of the other beamline groups, Science Team members and other synchrotron engineering, controls & computing and accelerator managers and staff	<ul style="list-style-type: none"> <li>• Communicate and collaborate to enable effective operation of AS beamlines and capabilities and effective management of development projects and activities.</li> </ul>
Other ANSTO enabling functions	<ul style="list-style-type: none"> <li>• Engage and coordinate with Safety, Finance, Human Resources, IT, Industry Engagement, and the ANSTO User Office to effectively manage the activities of the beamline group in support of world-class research outcomes.</li> </ul>
<b>External</b>	
Universities, Business, Industry, Scientific Institutions	<ul style="list-style-type: none"> <li>• Develop and maintain collaborative user relationships</li> <li>• Provide expert, authoritative and evidence based advice</li> </ul>
International synchrotrons and research organisations	<ul style="list-style-type: none"> <li>• Develop and maintain international linkages around scientific operations and research</li> </ul>
Suppliers and contractors	<ul style="list-style-type: none"> <li>• To ensure effective beamline development; project management and procurement requirements</li> </ul>

- Contractor supervision

## POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Senior Principal Scientist – Australian Synchrotron
Direct Reports	7-14 Beamline Scientists, Senior Beamline Scientists, Principal Instrument Scientists
Indirect Reports	2-5 Post-Doctoral Fellows and students
Special / Physical Requirements	
Location:	Clayton Working in different areas of designated site/campus as needed
Travel:	Moderate amount of travel to ANSTO sites within Australia Moderate amount of travel both nationally and internationally
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Public speaking Wearing personal protective equipment for the handling of hazardous and/or radioactive materials
Radiation areas:	Required to work in radiation areas under tightly regulated conditions Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions
Hours:	Willingness to work extended and varied hours based on operational requirements After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Obtain and maintain appropriate federal government clearance

## Workplace Health & Safety

Specific role/s as specified in All Workers

AG-2362 of the ANSTO WHS Managers / Leaders / Supervisors

Management System

Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties

## ORGANISATIONAL CHART

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## KNOWLEDGE, SKILLS AND EXPERIENCE

1. MSc or PhD in Science or Engineering discipline.
2. Expert technical understanding and significant experience in execution and research applications of synchrotron beamlines.
3. Previous experience operating as a beamline scientist undertaking experiments, supporting users and providing data analysis in synchrotron beamline science.
4. Relevant experience to demonstrate ability to lead and manage staff.
5. The ability to choose appropriate management techniques and communication styles to maintain high levels of motivation and productivity, giving feedback for development purposes and providing support for improvement.
6. The demonstrated ability to work effectively as an integral team member and leader of a multi-disciplinary team, and foster an environment in which there is a high level of co-operation within and between teams.
7. Demonstrated experience leading or delivering science operations, development or research projects including strategic planning, decision-making, managing budgets/expenditure, delivery timeframes, competing priorities, quality outcomes and resources.
8. Demonstrated commitment and engagement with user community, providing expert knowledge, support and advice to deliver world-class scientific outcomes.
9. Demonstrated experience and successful outcomes promoting scientific techniques and capabilities to engage with industry and commercial clients
10. Demonstrated competency to effectively network, develop a portfolio of internal and external relationships and influence stakeholders leading to collaborative outcomes and results in science and technology.
11. Personal commitment to safety practices for all staff, contractors and visitors to the Australian Synchrotron.
12. A history of professional and respectful behaviours and attitudes in a collaborative environment.

## VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		Delegated Authority	
Name:	Michael James	Name:	Andrew Peele
Title:	Senior Principal Scientist - Australian Synchrotron	Title:	Director, Australian Synchrotron
Signature:		Signature:	
Date:		Date:	