Australian Government

ANSTO

Corporate Plan

2025–2029

Science. Ingenuity. Sustainability.

Contents

Message from Chair of the Board

On behalf of the ANSTO Board, I present ANSTO's 2025-2029 Corporate Plan, as required under section 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013* (Cth), which covers the period 2025-2029.

It is just over a year since my appointment as Chairman of the Board at ANSTO. It is a privilege to see firsthand the landmark infrastructure, and interact with talented scientists, engineers, technicians, educators and support staff who are at the forefront of Australia's nuclear technology and research enterprise.

During the past year there has been significant renewal at Board level. In partnership with the Executive, the Board is focused on refreshing ANSTO's strategy to ensure it delivers maximum benefit for Australians and secures its long-term financial sustainability.

This Corporate Plan provides an outline of ANSTO's strategy and key activities to support our mandated purposes, as defined by legislation and Commonwealth Government policy directives.

Looking forward, ANSTO's focus is to address some of the most challenging issues facing Australia in the fields of health, environment, advanced manufacturing, defence and national security through nuclear science and technology research.

This Corporate Plan highlights the breadth of ANSTO's key activities, and I am certain ANSTO's sovereign capability is well placed to support Australia now and into the future.

Michael Quigley AM
Board Chair

Our purpose

ANSTO's purpose is outlined in section 5 of the *Australian Nuclear Science and Technology Organisation Act 1987* (the ANSTO Act), which directs the core functions we undertake for the benefit of Australia to:

1. Conduct research and development in relation to nuclear science, engineering and technology.
2. Produce and use radioisotopes, isotopic techniques and nuclear radiation for medicine, science, industry, commerce and agriculture.
3. Encourage and facilitate the application and use of results gained from research and development.
4. Manage radioactive materials and waste arising from various prescribed activities.
5. Provide goods and services related to core activities, such as in connection with the production and use of radioisotopes.
6. Provide advice to government and liaise with other countries on behalf of Australia in nuclear-related matters.
7. Make available to other persons – whether or not on a commercial basis – the knowledge, expertise, equipment, facilities, resources and property of the organisation for the purposes of scientific research, innovation and training.
8. Publish scientific and technical reports, periodicals and papers, and provide public information and advice.
9. Facilitate education and training in nuclear science and technology, including through granting scientific research studentships and fellowships, in cooperation with universities, professional bodies and other education and research institutions.

Message from Chief Executive Officer

ANSTO's Corporate Plan details our forward strategy and key activities over the next 4 years, and how we intend to meet these commitments and deliver the benefits of nuclear science and technology for all Australians.

To ensure we meet these commitments, the ANSTO Executive in partnership with the ANSTO Board has undertaken a strategy refresh which will come into effect in 2025. The strategy refresh is designed to clearly articulate priority activities for the organisation.

Through being clearer on our priority activities, ANSTO will be better positioned to lead Australia's research and development in nuclear science and technology, providing important health, environmental and economic contributions. Crucially, this will also help ensure ANSTO's long-term financial sustainability and ensure we are positioned to maximise opportunities aligned to our core goal and objectives.

Our sovereign capability makes ANSTO a critical advisor to government, academia and industry, as we work together to deliver Australia's national priorities. ANSTO is recognised for our role in supporting health care through the production of nuclear medicine and our role at the heart of scientific research, including our own research, and the provision of access to critical scientific infrastructure supporting thousands of visiting researchers every year.

In addition, ANSTO is involved in many other activities that deliver benefits to Australians every day. For example, ANSTO currently provides more than 50 per cent of global capacity for neutron transmutation doped (NTD) silicon, irradiating up to 90 tonnes a year for applications in the electric automotive, high-speed rail, satellite, and solar and wind energy industries. This work directly supports Australia's commitment to transition to a net zero future.

The Australian Critical Minerals Research and Development Hub, a collaboration of ANSTO, CSIRO and Geoscience Australia, is delivering sustainable technical solutions that support and boost onshore investment in Australia's critical minerals processing industry, helping secure supply chains for these essential materials used in solar panels, wind turbines, and other electronic applications.

I thank ANSTO's talented workforce for the vital work they undertake every day and am deeply appreciative of their work supporting the Australian community in all fields of nuclear research and technology.

Shaun Jenkinson
Chief Executive Officer

Our strategy

Our vision

Nuclear science and technology for the benefit of all Australians

Our mission

To deliver knowledge, value and trust through the application of nuclear science, technology and engineering

Our strategic objectives

Deliver on Australia's priorities for the benefit of people, industry and the environment through nuclear excellence in research and the use of national infrastructure.

Improve the health of Australians by supporting access to current and future nuclear technologies for diagnostic, therapeutic and innovative treatments for current and emerging diseases.

Continue to be Australia's source of nuclear expertise, advice and services to governments, academia, industry and community.

Lead the development of a nuclear-capable workforce aligned with government policy objectives.

Safe. Secure. Sustainable.

Key activities

Operate world-class research infrastructure and leverage capabilities to deliver outcomes for Australia

Our landmark and national infrastructure places Australia at the forefront of translational nuclear research and innovation for the benefit of public health, industry and the environment.

OPAL multipurpose reactor

The Open Pool Australian Lightwater (OPAL) reactor is a 20-megawatt, state-of-the-art multipurpose reactor that uses low-enriched uranium fuel. It is cooled by light water and moderated by heavy water.

OPAL produces around 80 per cent of Australia's nuclear medicine, provides neutrons for research at the Australian Centre for Neutron Scattering, and supplies more than 50 per cent of the world's neutron transmutation doped (NTD) silicon for the semiconductor industry.

Between March and September 2024, upgrades were completed for the cold neutron source and the reactor protection management system.

ANSTO is executing its next routine shipment of spent fuel. This is the second export from OPAL since it reached criticality in 2006 and the ninth export of spent fuel from ANSTO in more than 70 years of nuclear operations. In accordance with the *Agreement Between the Government of Australia and the Government of the French Republic Concerning the Reprocessing in France of Australian Irradiated Nuclear Fuel Elements*, conditioned waste from the reprocessing will ultimately return to Australia.

Key future activities

Reactor control monitoring system

The reactor control monitoring system (RCMS) allows reactor operators to monitor and change reactor parameters to ensure OPAL is functioning at optimal performance level. ANSTO will upgrade this hardware and software, which is scheduled to be conducted in October 2026.

Heavy water replacement

Heavy water located in the reflector vessel inside OPAL helps maintain the nuclear reaction in the core by 'reflecting' neutrons back towards the core. As with oil in a car engine, the heavy water needs to be replaced periodically. The current heavy water inventory will be replaced towards the end of calendar year 2027.

Australian Synchrotron

The Australian Synchrotron uses accelerator technology to generate powerful infrared and X-ray beams that are directed into beamlines for diverse research in human health, energy and advanced materials, environmental science, agriculture and manufacturing. The unique properties of synchrotron light offer greater accuracy, sensitivity and speed than conventional laboratory equipment.

In 2025–26, ANSTO will continue the $105 million BRIGHT project, which began in 2018, to design, construct and commission 8 new beamlines. It is funded by investment from 33 universities, research institutes and government agencies across Australia and New Zealand.

The new BRIGHT beamlines include:

Microcomputed tomography beamline (MCT)	Operational
2x medium energy X-ray absorption spectroscopy beamlines (MEX1 and MEX2)	Operational
Biological small angle X-ray scattering beamline (BioSAXS)	Operational
High performance macromolecular crystallography beamline (MX3)	Operational
2x advanced diffraction and scattering beamlines (ADS1 and ADS2)	Under construction
X-ray fluorescence nanoprobe beamline (NANO)	Under construction

In parallel, over 30 additional projects worth more than $30 million will deliver annual upgrades and refurbishment to supporting and legacy equipment.

Key initiatives include:

Upgrading core components of the synchrotron plant and accelerator complex, with infrastructure nearing end-of-life after 20 years of operation	Under construction
A multi-year program of refurbishment of controls, scientific computing, and safety systems for the original 10 beamlines	Under construction
Targeted upgrades to the photon delivery system components and state-of-the-art X-ray detectors	Under construction
A major refurbishment of the microfocus crystallography (MX2) beamline's robotics and endstation systems to enhance throughput, sensitivity, precision and speed	Under construction

These upgrades are essential to ensuring that the Australian Synchrotron continues to operate with world-leading reliability and delivers world-class scientific capabilities to the research community. Synchrotron facilities around the world are undertaking significant improvements in their instrumentation, capabilities and performance. Through this substantial program of upgrades, ANSTO is collaborating with international colleagues and implementing new international developments in synchrotron technologies.

Operational Under construction

Australian Centre for Neutron Scattering (ACNS)

In 2025–26, ANSTO will continue upgrading critical instrument control systems at ACNS. These investments will ensure ANSTO's neutron scattering research infrastructure remains world-class and operates reliably for decades.

These investments will include:

- replacement of critical instrument control systems and equipment
- the Wombat (diffractometer) instrument detector replacement project, started in 2024-25 and to be completed in 2028–29, will be more reliable, better performing, scientifically capable, and easier to maintain.

Centre for Accelerator Science (CAS)

In 2025–26, ANSTO will monitor and evaluate recently completed upgrades to critical accelerator systems and equipment on the STAR and ANTARES accelerators. Capital investment plans are being prepared for other critical plant and equipment, such as the chilled water and HVAC (heating, ventilation and air-conditioning) services for the accelerator halls.

CAS will also initiate a 4-year step-change improvement program in accelerator mass spectrometry sample preparation, ion beam analysis capabilities and end stations, and ion beam irradiation beamlines and target chambers. This improvement, funded through the 2023 NCRIS (National Collaborative Research Infrastructure Strategy) Investment Plan, will ensure:

- longevity and efficient operation of ANSTO's world-class accelerator science capabilities and instrumentation
- increased capacity and productivity through automation
- improved quality and volume of user interactions
- enhanced industry engagement through linked innovation and translation activities.

National Deuteration Facility (NDF)

This facility is the only one of its kind in the Southern Hemisphere and among only a few worldwide. The NDF provides vital onshore support for the Australian drug discovery program, reducing reliance on overseas deuterium labelling services and associated delivery and logistics risks.

In 2023–24, NCRIS funding was provided to support 2 step-change activities at the NDF to boost productivity and expand capability in deuterated molecule production. In 2024–25, work continued to prepare and implement these activities. The implementation of the synthetic biology capability (forecast to be completed by 2025–26 in the last Corporate Plan) was delayed due to unforeseen issues recruiting the biochemist required to lead the activity. Preparation and implementation will occur in 2025–26, with completion in 2026–27 and user services commencing thereafter.

These activities are:

- deuteration for applications beyond neutrons to include nuclear magnetic resonance (NMR), infrared (IR), mass spectrometry (MS) and other spectroscopic techniques
- deuteration and stable isotope labelling using synthetic biology platform.

Benefits of the expansion include:

- increased deuterated lipid production capacity, ensuring a more reliable and scalable supply for research, pharmaceutical and industrial application production
- enhanced access to high-quality stable isotope internal standards for Australian drug discovery and analysis, driving innovation and improving regulatory compliance
- development of a versatile synthetic biology-based stable isotope labelling platform, unlocking new applications across biotechnology, materials science and medicine
- advanced analytical and characterisation techniques, delivering more precise and efficient data for research and product development.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
OPAL upgrades					
Replacement of CNS	Ensure the ongoing and safe operation of the OPAL nuclear reactor and optimally position ANSTO to supply radioisotopes reliably, undertake effective silicon irradiations, and deliver neutrons for research and industry applications	M	M	M	M
Replacement and expansion of neutron beams		M	M	M	M
Reactor control monitoring system upgrade		P	I C	M	M
Heavy water replacement		P	P	I C	M
Project BRIGHT					
MCT, MEX1 & MEX2, BioSAXS	Expand the existing infrastructure at the Australian Synchrotron, making it the 'go to' facility for the nation's scientific imaging capabilities to address national and global challenges	M	M	M	M
MX3		C	M	M	M
NANO		I	C	M	M
ADS1 & ADS2		I	C	M	M
ACNS upgrades					
Research Infrastructure Investment Plan	Ensure ANSTO's state-of-the-art neutron scattering research infrastructure remains world-class and can operate reliably for decades to come	M	M	M	M
Koala upgrades		M	M	M	M
Wombat detector upgrade		I	I	I	I
ACNS expansion scoping study		P I	P I	P I	P I
CAS upgrades					
Upgrade of accelerator systems, facilities and equipment – 2020 NCRIS Research Infrastructure Investment Plan	Ensure longevity and efficient operation of the world-class capabilities and instrumentation delivered by CAS and provide sovereign capability for ion beam precision irradiation to meet the national need for facilities supporting space, defence and advanced manufacturing	M	M	M	M
Automation of sample processing, beamlines and end stations – 2023 NCRIS Research Infrastructure Investment Plan		I	I	C	M
Automation of groundwater sample processing for high-throughput radiocarbon dating – NSW Research Attraction and Acceleration Program		M	M	C	C
Upgrade or replacement of critical enabling plant and equipment		P I	I	C	M
Expansion of CAS user program – 2023 NCRIS Research Infrastructure Investment Plan		I	I	C	M
NDF capability expansion					
Provide new techniques for deuteration of molecules (flow chemistry)	Expand existing capabilities to transition NDF from primary support of characterisation techniques to enabling research utilising deuterated molecules as functional materials in industry and biotechnology programs	C	M	M	M
Provide stable isotope internal standards to industry		M	M	M	M
Provide synthetic biology capability for labelling of molecules		P I	C	M	M
Upgrading the nuclear magnetic resonance spectroscopy facility in the NDF		C	M	M	M

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Performance measure	2025–26	2026–27	2027–28	2028–29
OPAL (Days at power)	**300**	**300**	**280***	**300**
Australian Synchrotron (% utilisation)	**95%**	**95%**	**95%**	**95%**
Australian Centre for Neutron Scattering (% utilisation)	**85%**	**85%**	**85%**	**85%**
Centre for Accelerator Science (% utilisation)	**65%**	**65%**	**67%**	**70%**
National Deuteration Facility (% utilisation)	**90%**	**90%**	**90%**	**90%**

* Planned decrease days at power due to scheduled heavy water replacement activities.

Ensure the reliable and sustainable supply of nuclear medicine products and services

ANSTO focuses on the reliable and sovereign supply of nuclear medicines through targeted investment. ANSTO conducts and supports research into human health, including emerging nuclear medicine diagnostic and therapeutic products.

ANSTO's products account for approximately 80 per cent of the nation's nuclear medicine supply. The export of nuclear medicine products supports Australia's access to vital products in times of domestic supply chain disruption.

To sustain a high standard of reliability, ANSTO employs a highly skilled workforce that manages the complete nuclear medicine manufacturing and logistical process from customer order to delivery of 'just in time' products.

Nuclear Medicine Manufacturing Facility (NMMF)

The Commonwealth Government has committed $619.2 million for the new Nuclear Medicine Manufacturing Facility (NMMF), with the facility expected to be commissioned and operational in the mid-2030s.

In 2024–25, the project saw the approval of the ARPANSA siting licence application and negotiations are being finalised to secure a principal design consultant.

The next major milestones for the 2025–26 period include:

- engaging the principal design consultant to commence the design phase
- engaging the project advisors (program quality surveyor & principals engineer)
- issuance of the siting licence by ARPANSA
- continuation of the procurement of the major equipment vendors (hot cells)
- submission of an update of the detailed business case.

Ongoing maintenance of nuclear medicine production facilities

In 2024–25, ANSTO delivered a planned extended maintenance shutdown in its Nuclear Medicine Manufacturing Facility, completing a substantial program of critical capital upgrades and major preventative maintenance activities. The shutdown was delivered in parallel with the long-planned OPAL shutdown, minimising impact to patients.

In 2025–26, there will be a particular focus on extending the operational life of the ageing manufacturing facility and addressing systemic reliability risk of the molybdenum-99 (Mo-99) processing facility.

Five–year research and development strategy for successful innovation in health

ANSTO is implementing plans to develop a pipeline of nuclear medicine products and technologies to address areas of unmet clinical need and to improve patient outcomes. To achieve this, a world-class radiochemistry capability is being developed to enable innovation in radioisotope separations, radiolabelling, and production optimisation. Contributions are also being made to the new NMMF by supporting the design of the facility and leading technology demonstration activities for the lutetium-177 (Lu-177) and iodine-131 (I-131) products and improving the technetium-99m (Tc-99m) generator.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
New nuclear medicine facility	Safe and reliable delivery of quality nuclear medicines for Australia	I	I	I	I
Ongoing maintenance of our nuclear medicine production facilities	Sustainment of operations within the nuclear medicine production facility	M	M	M	M
Five-year research and development strategy for successful innovation in health	Improved health outcomes for all Australians through the effective application of radioisotopes and radioisotope-enabled technologies including radiopharmaceuticals	I	I	I	I

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Performance measure	2025–26	2026–27	2027–28	2028–29
Mo-99 DIFOT*	**95%**	**95%**	**95%**	**95%**
Nuclear medicine production facility DIFOT*	**95%**	**95%**	**95%**	**95%**

* DIFOT (delivery in full and on time)

Collaborate, deliver and translate research that has scientific and industrial benefits for Australia and the world

ANSTO concentrates its research and development efforts on areas that deliver against a national need and which only ANSTO can provide – those where ANSTO provides a sovereign capability.

Research and development strategy

In addition to the contributions made through its more than $1 billion of research infrastructure, ANSTO's research and development strategy delivers through the following areas of benefit:

Health

Nuclear science and technology essential in the diagnosis and treatment of disease:

- security and innovation for nuclear medicine supply
- radiochemistry capability for Australia

Environment

Nuclear science and technology protecting our environment:

- public confidence in safe operations
- environmental management tools

Nuclear technologies

Nuclear science and technology for a safe and sustainable nuclear industry:

- safety and reliability in reactor and nuclear operations
- nuclear waste solutions

The release of the strategy and its key initiatives is focusing ANSTO R&D activity, ensuring delivery of core research.

Current research information system and portal (CRISP) project

The CRISP initiative equips ANSTO with advanced software tools and analytics to enhance information and data management across all research activities. It aims to improve reporting, analytics, and compliance. ANSTO has successfully implemented the research infrastructure management system (RIMS) and continues to expand its uptake. The portal module is operational, and the Nuclear Science and Technology Group is working with the IT team to integrate and enhance existing portals as business as usual.

The laboratory information management system (LIMS) module has been transitioned to the enterprise level to meet broader organisational requirements and support wider integration.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
Updated ANSTO research and development strategy	Increased delivery and awareness of benefits to Australia delivered through ANSTO R&D	I C	M	M	M
CRISP project – research information management system (RIMS)		C	M	M	M
CRISP project – laboratory information management system (LIMS)		I	C	M	M

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Measuring performance and targets	2025–26	2026–27	2027–28	2028–29
Total publications*	**850**	**850**	**850**	**850**
Publications undertaken with national and international collaborators	**95% or greater**	**95% or greater**	**95% or greater**	**95% or greater**
External revenue from research and research services**	**$5.5m**	**$6.0m**	**$6.0m**	**$6.0m**

* ANSTO author only, or acknowledgement of ANSTO

** Excluding National Collaborative Research Infrastructure Strategy (NCRIS) grants

Build new knowledge, drive innovation, and support training and development for the safe management of radioactive waste

Waste canisters before and after hot isostatic pressing process.

Develop and implement world-leading innovative radioactive waste treatment and management technologies

ANSTO Synroc® technology is an Australian innovation that mimics naturally occurring geological processes and transforms radioactive waste into a stable and durable form suitable for final disposal. The ANSTO Synroc® waste treatment facility is a first-of-a-kind purpose-built facility that will use ANSTO Synroc® technology to treat alkaline intermediate-level liquid waste arising from ANSTO's nuclear medicine production.

After process plant fit-out in the facility, defects were identified during and after the building handover, between 2021 and 2023. Remediation has been undertaken and will be completed in 2025–26, pending approval by ANSTO's regulator, the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

ANSTO is now in an extended cold-commissioning phase of the program to comprehensively verify and validate the first-of-a-kind process. This phase of activities will ensure safe operability and maintainability, and that any issues are addressed before hot commissioning begins. After approval by ARPANSA, the program can commence hot commissioning, where radioactive waste will be introduced into the process in a graded manner to further verify and validate the process prior to full operations.

The ANSTO Board approved a financial and timeline recalibration of the ANSTO Synroc® waste treatment facility in July 2024, following the identification of an optimal delivery pathway. The facility, which is scheduled to be operational in 2029, will ultimately serve as a demonstration of, and the technological basis for, the commercialisation of ANSTO Synroc® intellectual property for use overseas.

Implement intermediate-level radioactive waste storage solutions

ANSTO has been funded to construct a new facility – known as the intermediate-level waste capacity increase (ILWCI) – to accommodate interim storage of its solid intermediate-level radioactive wastes being generated until approximately 2040. The program has recently expanded to allow the decommissioning of ageing waste tanks by transferring the legacy intermediate-level liquid waste holdings to the new facility.

ILWCI is currently in the design and documentation phase, in preparation for an application to ARPANSA for a construction licence. ANSTO received approval in 2021 under the *Environmental Protection and Biodiversity Conservation Act* 1999 to construct ILWCI. However, the recent inclusion of legacy intermediate-level liquid waste into the design requires a resubmission to the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) before construction can begin.

ANSTO plans to commence procurement of a principal contractor in 2026 and will commence site works following approval from ARPANSA and DCCEEW. Construction is scheduled to be completed in 2028, with commissioning thereafter. The transfer of legacy liquid waste is expected to occur in 2029.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
ANSTO Synroc® waste treatment facility					
ANSTO Synroc® waste treatment facility building defect remediation	Develop and implement world-leading innovative radioactive waste treatment and management technologies via first-of-a-kind ANSTO Synroc® waste treatment facility	I	I C	M	M
Cold commissioning (process plant verification and validation) with non-radioactive simulant		I	C	C	C
Waste transfer system design and construction		P	I C	M	M
Operating licence submission and review by ARPANSA to enable conditional operations (hot commissioning) and then full operations		P	I	I	C
Hot commissioning (graded introduction of radioactive waste into the processing plant)		P	P	I	I C
ANSTO Synroc® technology commercialisation strategy		P	P	P	P I
ILWCI storage facility					
Design, documentation and procurement activities	Implement ILW storage solutions – construction of new storage facility for intermediate-level solid and liquid radioactive waste	I	I C	M	M
Regulatory submissions and approvals for construction		I	C	M	M
Site construction activities		P	I	I	C
Commissioning		P	P	P	I
Operation		P	P	P	P

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Ensure the reliable and sustainable supply of commercial products and services for the benefit of Australia and the world

Critical and strategic minerals

ANSTO's consultancy to Australian and international customers in the resources sector covers all facets of critical minerals process development, from mineralogy and laboratory scale-testing through to continuous piloting, including demonstration plant design and pilot plant operation. ANSTO's work in uranium processing, spanning decades, has translated into expertise in other critical and strategic minerals, such as lithium, zirconium, niobium and hafnium.

In 2022 ANSTO was named as one of 3 pillars of the Australian Critical Minerals Research and Development Hub. As part of the hub, ANSTO is leading and contributing to programs concerned with high purity quartz (essential for polycrystalline silicon production for solar panels), rare earth elements (essential for high strength magnets in wind turbines), germanium and gallium (essential for semiconductors and other electronic applications), and tungsten (essential for tooling, advanced manufacturing and defence technologies).

In October 2024 ANSTO was named as partner to the State of New South Wales in its Critical Minerals and High-Tech Metals Strategy.

Irradiation services

Neutron transmutation doped (NTD) silicon

ANSTO is the leading global supplier of neutron transmutation doped (NTD) silicon, currently providing more than 50 per cent of global NTD silicon production capacity, irradiating up to 90 tonnes of silicon a year.

Irradiated silicon is particularly desirable for solid-state switching devices used in high voltage and high-powered applications such as energy infrastructure, high-speed rail, industrial automation, and the international electric vehicle and hybrid electric vehicle automotive industries. Demand for these important technologies continues to grow, and ANSTO is actively looking for ways to meet this growing demand.

OPAL has a critical role in the power semiconductors supply chain, requiring ANSTO to be responsive to global NTD silicon production capacity. During OPAL maintenance, including extended shutdowns, ANSTO proactively communicates with stakeholders to manage inventory ahead of schedule.

Through its work, ANSTO is delivering against Australia's National Science and Research Priorities of transitioning to a net zero future; protecting and restoring Australia's environment; and building a secure and resilient nation.

ANSTO will celebrate 40 years of silicon irradiations for commercial application in November 2025.

Medical isotope and medical device irradiations

ANSTO is also an important supplier of irradiation services for medical applications that use irradiated yttrium-90, phosphorous-32 or gold-198. These medical products are used globally to treat a range of cancers including liver, prostate, tongue and pancreatic cancers. The irradiation service is provided to domestic and international customers – in North America, Japan and Europe.

ANSTO is currently implementing a business plan to expand and diversify its irradiation service offering. This business plan will start with irradiations of ytterbium-176, which is a critical input material for the production of lutetium-177 n.c.a – used in targeted cancer therapy, particularly for metastatic prostate cancer and some neuroendocrine tumours. Expanding ANSTO's irradiation services will increase use of OPAL's capabilities, delivering greater patient outcomes and maximising return in revenue for ANSTO.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
R&D Hub – High purity quartz project	Reliable and sustainable supply of commercial products and services for the benefit of Australia and the world	I C	M	M	M
R&D Hub – Rare earth elements project		I C	M	M	M
R&D hub – By-products project		I C	M	M	M
R&D Hub – Metallisation		I C	M	M	M
R&D Hub – International engagement program		I C	M	M	M
Future Made in Australia (Production Tax Credit and Other Measures) Bill 2024 – regulatory consultation		P I C M	P I C M	M	M
NSW Government – Common user rare earth refinery opportunity assessment		C	M	M	M

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Measuring performance and targets	2025–26	2026–27	2027–28	2028–29
NTD silicon DIFOT*	**≥ 95%**	**≥ 95%**	**≥ 95%**	**≥ 95%**

* DIFOT (delivery in full and on time)

Deliver expert advice to local, state and federal governments, and other stakeholders to support national interests

As a science, research and engineering partner, ANSTO collaborates and shares information with universities, industry, other publicly funded research agencies, research institutes, cooperative research centres, Australia's chief scientist and international partners. ANSTO advises government on nuclear science and technology.

Nuclear security science capability (NSSC)

The NSSC program was allocated funding in the 2023–24 Budget across 2 years to deliver a detailed business case (DBC). The ANSTO program team has delivered a DBC that meets Department of Finance guidelines, describes scalability and funding options, and has been critically reviewed by a panel of domestic and international experts. The ANSTO team has leveraged relationships with international like-minded partners, which has enabled improvements in technical knowledge exchange.

AUKUS nuclear-powered submarines (NPS Program)

ANSTO has been supporting the Australian Submarine Agency (ASA), the Nuclear-Powered Submarine Regulatory Design (NPSRD) team, and other organisations, by sharing more than 70 years of experience in nuclear stewardship. ANSTO's expertise supports the establishment of Australia's nuclear baseline as it relates to the NPS enterprise, including by determining what steps are needed to operate a new nuclear program safely.

Since 2021, ANSTO has welcomed 1,149 NPS-related visitors to Lucas Heights.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
Nuclear security science capability	Planning, design and preparation of a detailed business case for an enduring nuclear security science capability	I	I	I	I
Nuclear-powered submarines*	Support government to implement the AUKUS nuclear-powered submarine pathway	I	I	I	I

* 2026–27, 2027–28 and 2028–2029 implementation status is subject to government decision.

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Performance measure	2025–26	2026–27	2027–28	2028–29
Australian Government stakeholder satisfaction – federal, state and local government	**75%**	**75%**	**75%**	**75%**
Monitoring of nuclear-powered submarine visits supported*	**100%**	**100%**	**100%**	**100%**
Department of Defence RFIs – responded to in agreed time**	**100%**	**100%**	**100%**	**100%**

* 2026–27, 2027–28 and 2028–2029 status is subject to government decision.

** 2026–27, 2027–28 and 2028–2029 status is subject to government decision.

Participate in international, regional and bilateral nuclear engagements to maintain and increase Australia's leadership in the peaceful application of nuclear science and technology

Leadership in setting global nuclear standards

Through participation in International Atomic Energy Agency (IAEA) committees, working groups and expert missions, ANSTO continues to influence the practice and evolution of standards in areas such as nuclear security, radiation safety and protection, decommissioning, nuclear forensics, management of research reactors, nuclear medicine production, research and analysis, and nuclear science education and outreach. ANSTO demonstrates capabilities as an IAEA collaborating centre and supports capability development in our region through membership of the Network of Analytical Laboratories, Asian Network of Educators in Nuclear Technology and the Analytical Laboratories for the Measurement of Environmental Radioactivity.

ANSTO continues to advocate for gender equality, stakeholder engagement, trust, transparency, and the contributions of social science within the IAEA and the OECD's Nuclear Energy Agency (NEA).

Leading social and economic development in the Asia and Pacific region

ANSTO continues to play a leadership role in the treaty-level Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA for Asia and Pacific).

This treaty-level agreement, under the auspice of the IAEA, is a key mechanism by which Australia delivers socioeconomic benefits to the Indo-Pacific region through the peaceful application of nuclear science and technology. ANSTO continues to play a pivotal role in setting a regional development program that delivers on improving cancer care and food security in the Asia and Pacific region.

As a partner of the IAEA Sub-regional Approach to the Pacific Islands, ANSTO research will focus on water management through isotope hydrology, nuclear science and communications outreach, and on responding to the emerging needs of the Pacific nations.

Through the Forum for Nuclear Cooperation in Asia, ANSTO continues to lead a project to combat fraud in seafood in Asia and so increase the value of regional trade for locally produced products important to the region.

Performance measure	2025–26	2026–27	2027–28	2028–29
Facilitation of Australian participation and leadership in IAEA, RCA, OECD-NEA and FCNA	**Maintain at least 3 senior leadership roles within international nuclear forums.** **Participate in 80 per cent of IAEA RCA active projects, leading at least 1 IAEA RCA project.** **Contribute to 10 additional international initiatives.**			

Develop a workforce plan for the next generation of specialised nuclear professionals

ANSTO's Strategic Nuclear Workforce Development Plan was developed in late 2023 and identifies key objectives and underlying initiatives across the education sector, industry and government.

	PRIME How to introduce nuclear to people?	ATTRACT How do we get people to join ANSTO?	DEVELOP How do we develop our people to be a highly skilled workforce?	RETAIN What should ANSTO do to keep people?	REGENERATE How to ensure continuity of capability and a sustainable workforce for the future?
OBJECTIVE 1 Exciting the next generation	✓	✓			
OBJECTIVE 2 Building early career pathways	✓	✓			
OBJECTIVE 3 Attracting and retaining the nuclear workforce	✓	✓		✓	✓
OBJECTIVE 4 Building collaborations, partnerships and networks			✓	✓	✓
OBJECTIVE 5 Diversifying the nuclear workforce		✓	✓	✓	✓
OBJECTIVE 6 Training and development			✓	✓	✓
OBJECTIVE 7 Streamlining processes and policies				✓	✓

Key progress to date across all 7 objectives, includes:

- an increase in representation of nuclear science within both the Chemistry and Physics syllabuses, including new references to concepts specific to ANSTO
- broadening of outreach to career forums at 12 universities
- input to curriculum development within secondary school, universities and vocational colleges including planning of micro -credential courses and in-person teaching arrangements with key universities
- hosting over 20,000 visitors across Lucas Heights and Clayton campuses with the majority at primary, secondary and tertiary stages of education
- development of a Basics in Nuclear Literacy program which has been attended by more than 250 non-STEM policy, corporate and non-government cohorts nationally

- a mechanism to host workplace secondments and graduates from government agencies and industry has been developed with an initial 14 graduate work placements over the last 24 months; and
- collaboration with nuclear agencies to develop cross agency nuclear graduate recruitment program.

ANSTO has also established and leads a community of practice with membership from 7 nuclear agencies with a focus on collaborating on human resources initiatives and programs of work that are supporting the development of a sustainable, highly skilled nuclear workforce. Many of the initiatives are ongoing and will build on foundational outcomes to date.

ANSTO's Early Careers Framework has also been revised to enable effective and consistent recruitment, onboarding and development across the multiple programs. A centralised approach has resulted in continuous improvement measures being implemented across all programs.

ANSTO Strategic Workforce Plan

In 2024-25, ANSTO developed a plan with a five-year horizon focusing on the workforce size and skills mix needed for strategic and operational outcomes.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
Organisational capability development	Create a highly skilled, agile technical workforce	C	M	M	M
Strategic workforce plan	Address the ways in which demand for workforce skills may change	C	M	M	M

P Preparation I Implementation C Completion M Monitoring and Improving

Performance measure	2025–26	2026–27	2027–28	2028–29
Number of students supervised	**200**	**200**	**200**	**200**

Grow a more informed generation of Australians who understand the benefits of nuclear science and technology

Performance measure	2025–26	2026–27	2027–28	2028–29
Offer a range of resources for teachers and students to support the national science curriculum outcomes for years 3 to 12	**Deliver ≥ 5 national programs per annum.**			
Increase accessibility of STEM teacher-training programs	**Deliver teacher professional development days in all states and territories.**			
Conduct educational tours and science experiences at ANSTO's Lucas Heights and Clayton campuses (visitors to ANSTO's campuses per annum)	**≥15,000 visitors**	**≥15,000 visitors**	**≥15,000 visitors**	**≥15,000 visitors**
Deliver industry training on nuclear basics to government agencies and key stakeholders associated with the nuclear-powered submarine project	**At least 6 courses delivered to more than 150 participants each year**			

Ensure ANSTO operates sustainably and safely

Commitment to safety

ANSTO is committed to the continuous improvement of a safety culture for staff and to providing an inclusive environment that empowers and supports a culture of collaboration and engagement. This is achieved through the integration of ANSTO's core values – Safe, Secure and Sustainable – into every aspect of the organisation. Significant resources are directed to ensuring ANSTO fulfils its legal and regulatory obligations.

Staff are trained in hazard identification, risk assessment, selecting and implementing controls, and encouraged in the development and maintenance of safe work environments. Our safety culture includes programs in physical, psychological and psychosocial safety.

Performance measure	2025–26	2026–27	2027–28	2028–29
Improvement in safety culture	**Increase opportunities for improvement (OFI*) to actual incidents recorded**			
Improvement in site-wide safety	**Zero Class 1 incidents** Year-on-year decrease in Class 2 and 3 incidents****			

* OFI – An event that did not result in any adverse effects to personnel or the environment, and is not considered to have had the potential to cause a lost-time injury, medical treatment injury or exposure of personnel, or harm to the environment; but could have resulted in a minor occurrence or damage to plant and equipment.

** Class 1 – Damage that permanently alters a person's life; Class 2 – Damage that temporarily alters a person's life; Class 3 – Inconveniences in a person's life or 1–5 days/shifts off work.

Health monitoring program

The Human Health Monitoring group protects worker health at ANSTO by identifying, assessing and controlling health hazards such as chemical, physical and biological agents through occupational hygiene and personal dosimetry services.

The deployment of ANSTO's replacement electronic personal dosimetry (EPD) system in 2023 has improved real-time radiation monitoring and dose tracking of our workers. In 2024, we achieved National Association of Testing Authorities (NATA) accreditation to ISO/IEC 17020, strengthening the reliability of our occupational hygiene risk assessments to chemical hazards.

Human health monitoring currently issues up to 6,000 dosimeters annually, with 999 workers enrolled in the service. In 2025, progress continued to modernise our dosimetry systems, which will enhance the quality and accuracy of our workers' exposure records.

Guided by ISO 45004:2024 – Occupational Health and Safety Management: Guidelines on Performance Evaluation, Human Health Monitoring, we will continue to enhance visibility of occupational health performance through reporting of measurable improvements informed by monitoring insights.

Cybersecurity program

Recognising cybersecurity's critical importance, ANSTO has established cybersecurity as an ongoing investment stream within the information technology division. To defend the organisation from cyberthreats and ensure resilience, our operating environment and cybersecurity risks are continually evaluated. We strive to implement the optimal balance of proactive and responsive measures, while facilitating the operational needs of the organisation.

Key activity	2025–26	2026–27	2027–28	2028–29
Health monitoring program	M	M	M	M
Cybersecurity Uplift program	I	I	I	I

P Preparation I Implementation C Completion M Monitoring and Improving

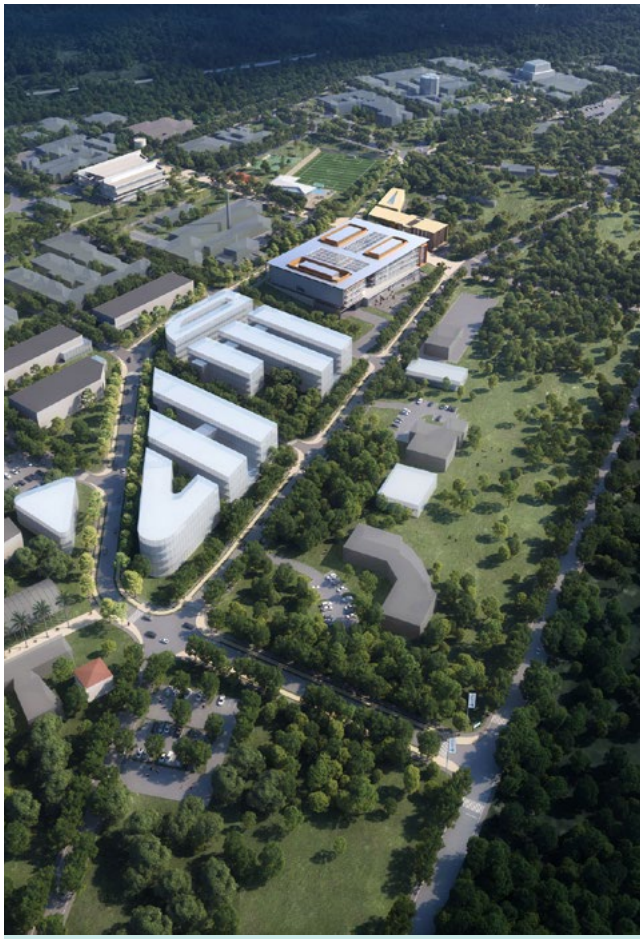
Campus Renewal Plan 2035

The plan to redevelop the ageing infrastructure at Lucas Heights will enable more efficient use of the site, more energy-efficient buildings and will enhance the environmental sustainability overall. It will also provide improved facilities for research and other activities and create opportunities for aligned organisations to co-locate.

The most significant project currently underway at ANSTO is construction of the new Nuclear Medicine Manufacturing Facility (NMMF).

Highlights and progress of campus renewal includes:

- Enabling site works for the NMMF project is underway, including the design and construction of service corridors and rerouting of services from buildings within the NMMF footprint to facilitate their demolition. Temporary office accommodation and a car park have been constructed to facilitate this relocation.
- Scoping and planning are underway for other key site-supporting assets, such as improving electrical network resilience.
- A detailed business case is being developed to support the delivery of a new campus utilities building, to provide backup power and new compressed air supply for the campus.



ANSTO's planning encompasses maintaining and upgrading infrastructure and sites and reducing our environmental footprint.

Developing an environmental sustainability roadmap

ANSTO continues to implement its environmental sustainability strategy. A review of the first set of actions will be completed in early 2025–26 and will inform the development and implementation of next actions, including consideration of government policies, operational priorities and changing environmental conditions.

The strategy will form a key component to ANSTO's first climate risk and opportunity disclosure (Commonwealth Climate Disclosure Policy), a new request from government, which will be published in late 2025.

Key activity	Outcome	2025–26	2026–27	2027–28	2028–29
Campus renewal plan 2035	Plans in place for the future of our Lucas Heights campus	I	I	I	I
Continue implementing Environmental Sustainability Strategy	Reduce our environmental footprint and achieve net zero scope 1 and 2 emissions by 2030	I	I	I	I

P Preparation I Implementation C Completion M Monitoring and Improving

Operating context

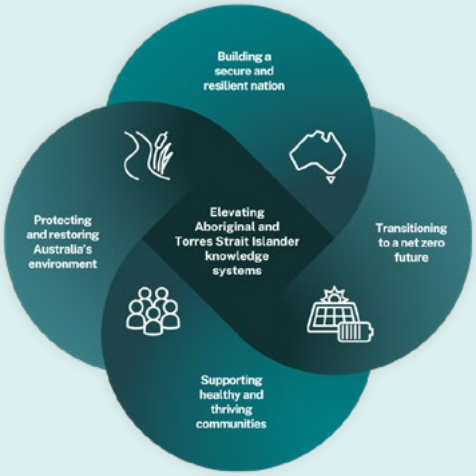
National factors

Ministerial expectations

ANSTO is a Corporate Commonwealth Entity within the portfolio responsibilities of the Department of Industry, Science and Resources (DISR). Under the previous Minister for Industry and Science, the Hon Ed Husic MP, ANSTO was issued with a Statement of Expectations on 9 December 2022.

The government's national policy priorities include achieving net zero emissions, delivering a Future Made in Australia, advancing First Nations science, supporting the health of Australians, and managing research infrastructure. ANSTO is committed to ensuring that its strategy is fully aligned with these national priorities.

ANSTO will continue to work with Minister, Senator the Hon Tim Ayres, and DISR, other Commonwealth agencies, including the Department of Foreign Affairs and Trade, Department of Defence, Department of Health and Aged Care, Department of the Prime Minister and Cabinet and the Australian Radioactive Waste Agency.



National Science Priorities: Australia's National Science and Research Priorities

Department of Industry Science and Resources

Radioactive waste management

ANSTO has provided safe and secure interim radioactive waste management and storage since the 1950s. All radioactive waste is managed in accordance with national and international standards and is regulated by ARPANSA.

Consistent with international best practice, ANSTO supports government policy in establishing radioactive waste disposal pathways as a priority, including a permanent, purpose-built facility. ANSTO's licence, as issued by ARPANSA, is conditional upon putting a plan into place for final disposal of radioactive waste. ANSTO will continue to provide expert advice and technical support on proposals for the storage and disposal of the Commonwealth's civilian low-level and intermediate-level radioactive waste.

Community engagement

ANSTO's Lucas Heights campus is located within Sydney's Sutherland Shire, where more than one-third of our workforce resides. ANSTO is one of the area's major employers and economic hubs, and community engagement is a strong priority. This is provided through STEM education with local schools, site visits and event sponsorships. Approximately 200 staff are employed at ANSTO's Clayton campus in Melbourne, home to the Australian Synchrotron.

ANSTO continues to seek further opportunities to engage with our local communities, including First Nations peoples. ANSTO is committed to the goals of Reconciliation and has undertaken a second Reconciliation Action Plan (RAP) to conduct and support research to achieve synergies between traditional Indigenous knowledge and current scientific and technological practice.

Financial sustainability, executive structure, and reprioritisation

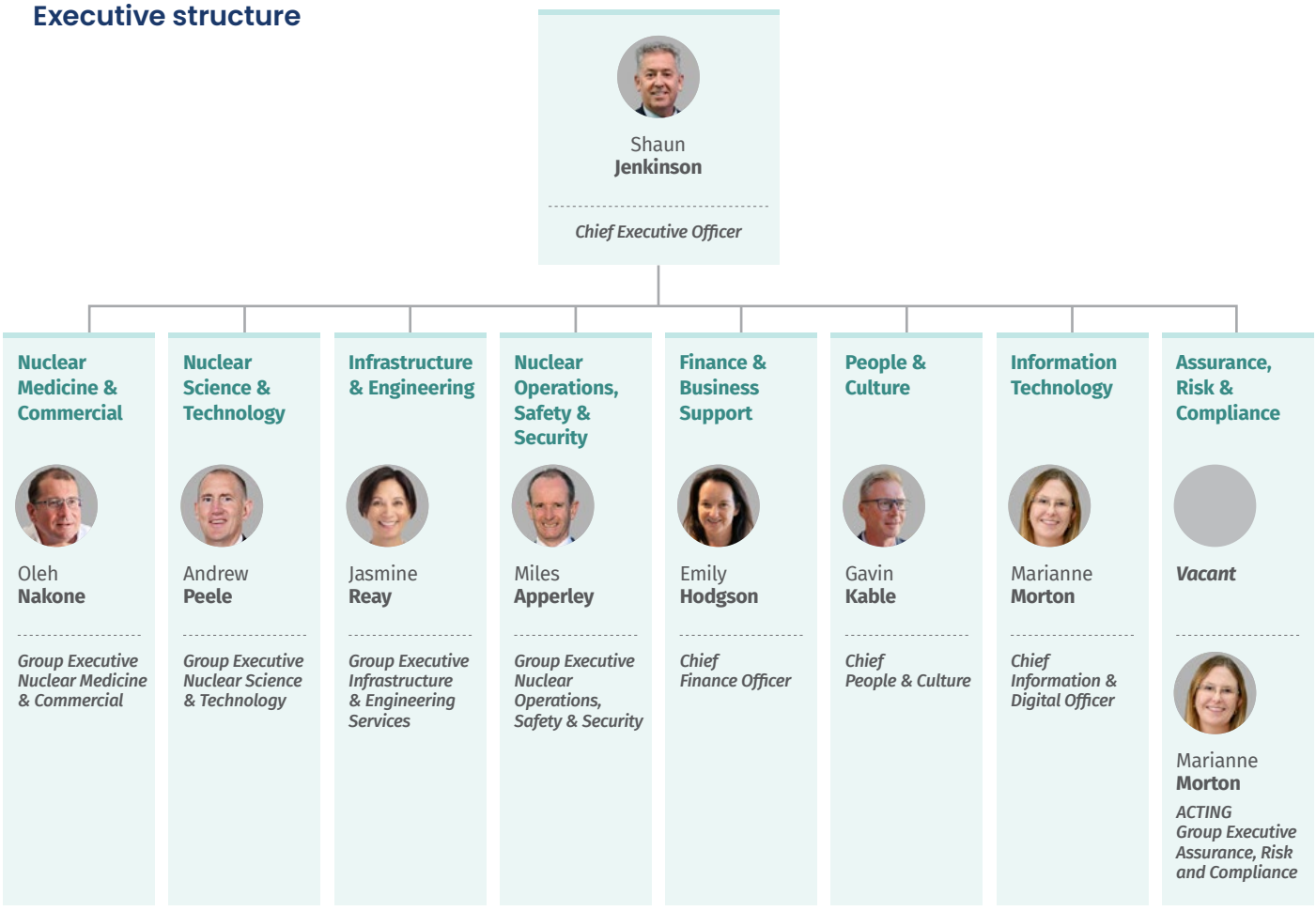
ANSTO relies on a combination of government appropriations, grants and commercial revenue to finance our operations.

For 2025–26, the Budget provided $384.3 million to support ANSTO's achievement of its purpose, goals and objectives. This is additional to the $150.6 million forecast for ANSTO's own source revenue, primarily from the sale of nuclear medicine and other activities. ANSTO is committed to ensuring the financial sustainability of its operations, including opportunities to grow our commercial revenue, using opportunities aligned with ANSTO's strategy.

The 2025–26 Budget also delivered separate additional measures totalling $30.2 million in 2025–26: $24.1 million to cover the unfunded costs of importing nuclear medicine during the extended OPAL shutdown and $6.1 million for ANSTO to continue to support the government's nuclear-powered submarine program (NPS), primarily via the Australian Submarine Agency.

Achieving a sustainable operating budget is affected by both internal and external factors. ANSTO is responding to these challenges as we continue to identify further opportunities for commercial revenue.

Executive structure



1 July 2025

Following strategy and prioritisation alignment workshops and employee survey feedback, the executive structure was reviewed. After consultation and assessment, a new executive structure was implemented in July 2025. The aim of this executive structure is to ensure it evolves in alignment with ANSTO's strategy.

Workforce capability

ANSTO is home to world-class researchers, scientists, engineers and nuclear experts. We are committed to educating and developing the STEM workforce of the future, through early career pathways and programs and by upskilling the existing workforce.

The Australian nuclear industry is facing labour difficulties with technical and highly specialised people being sought by the different nuclear agencies in Australia. There are also global concerns as a majority of the nuclear workforce approach retirement, leading to a loss of experience and knowledge.

Total full-time equivalent (FTE) as at 1 July 2025

Nuclear Science and Technology
433
29.72%

Nuclear Operations, Safety and Security
323
22.16%

Nuclear Medicine and Commercial
270
18.53%

Infrastructure and Engineering
177
12.15%

Finance and Business Support
96
6.59%

Information Technology
69
4.74%

Assurance, Risk and Compliance
59
4.05%

People and Culture
23
1.58%

Office of the CEO
7
0.48%

Total
1,457

Infrastructure capability

Activity on key capital projects within ANSTO has remained consistent over the last four years and reflects the commitment that ANSTO has in maintaining its current infrastructure while also expanding.

Over the next five years, key new infrastructure projects will enter the execution/construction phase for the Nuclear Medicine Manufacturing Facility, Intermediate-level waste storage building and the Campus Utility building, which will house critical utility infrastructure, including the back up High Voltage Power and Compressed Air system.

These projects align with ANSTO's legislated purpose, specifically the production of nuclear medicine and managing radioactive materials and waste arising from various prescribed activities. The Nuclear Medicine Manufacturing Facility initiative ensures Australia's sustained capability in nuclear medicine production and also supports research and development to advance healthcare in Australia.

The Enterprise Program Management Office, formed in 2023, is continuing to uplift project management maturity within ANSTO, and is embedding a structured approach to the management of projects within a scalable and flexible lifecycle management framework.

ANSTO also implemented a new executive structure in 2025 which more effectively aligns priorities and strategies, and recognises the critical nature of the capital program with a new Group Executive, Infrastructure and Engineering Services.

Updates on key existing capital projects including the $105 million BRIGHT Beamline Program and ANSTO Synroc® Waste Treatment facility is included in the key activities section of the corporate plan.

Global factors

Geographical factors

Australia's climate is changing, with predictions suggesting warmer temperatures, reduced rainfall, and increased risk of extreme weather events. Environmental researchers at ANSTO are conducting targeted research using ANSTO's unique nuclear and isotopic techniques, supported by geochemical and biological capabilities, to provide new insights and management solutions for complex environmental processes.

Sharing the peaceful application of nuclear science and technology for social and economic development

ANSTO is delivering on Australia's international obligations through the Treaty on the Non-Proliferation of Nuclear Weapons, by sharing the peaceful uses of nuclear science and technology with the world. This includes development of a professional nuclear workforce in our region to contribute to the areas of human health, the environment, agriculture and industry; and facilitating collaboration between Australian cancer-care professionals to build capability in Asia and the Pacific.

ANSTO's representatives have been leaders at the treaty level, particularly in the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific, in which we advance regional social and economic development. In this forum we advocate for inclusive and equitable programming, and for nuclear science and technology to address social challenges in our region, such as food security and climate change.

ANSTO's IAEA collaborating centre is undertaking research and development collaborations in emerging fields of nuclear science and technology such as accelerator science, and sharing this capability with IAEA member states.

Australia leads a project on combating food fraud, contributing to the region's biosecurity through the Japan-led Forum for Nuclear Cooperation in Asia. ANSTO is sharing our food provenance technology platform to create a regional federated database focused on key priority food items, which will advance authentic trade, and support consumer confidence in our region. Through these efforts, ANSTO is advancing the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.

Cooperation

Global partnerships

ANSTO continues to build strong relationships with multilateral, regional and bilateral partners. In global nuclear forums, ANSTO engages on behalf of Australia with the International Atomic Energy Agency (IAEA), the Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology in Asia and the Pacific (RCA for Asia and Pacific), the Forum for Nuclear Cooperation in Asia, the Organisation for Economic Cooperation and Development Nuclear Energy Agency, as well as many other regional forums and bilateral arrangements.

Partnerships with universities, academics, industries and innovation precincts

ANSTO makes its research infrastructure and capabilities available to the research community and industry through peer-reviewed, collaborative and commercial arrangements.

ANSTO works extensively with universities, businesses, the international research community and other state and federal government departments and agencies.

Approximately 40 Australian universities are connected to ANSTO through the Australian Institute of Nuclear Science and Engineering (AINSE) and, in a typical year, is visited by around 6,500 researchers from Australian and international universities, institutions and industry.

The nandin Innovation Centre is ANSTO's catalyst for innovation and collaboration in the nuclear science and technology sector. Its facilities, including collaboration and prototyping spaces, are purpose-built to cultivate the physical and philosophical conditions for innovation. Through nandin, ANSTO partners with local and global networks to develop best practices in innovation mindsets and methodologies. Locally, ANSTO is a delivery partner in the NSW Government Boosting Business Innovation Program, and globally ANSTO collaborates as a member of the Design Factory Global Network (DFGN).

Each year ANSTO works with more than 500 businesses from the mining/resource, aerospace, advanced manufacturing, energy, defence, health or environmental sectors.

Specialised professional training for industry, government and scientific users is provided by ANSTO in a range of areas including detection and measurement of ionising radiation, general and advanced radiological safety, and safe use of X-ray equipment.

Partnerships with schools and community

Around 17,000 Australian students engage with ANSTO each year: 10,000 primary and secondary school students visit the ANSTO Lucas Heights facility, and around 2,000 visit the synchrotron in Clayton, Victoria. A further 5,000 participate in online video-conference classes, which provide an effective, affordable online resource for teachers, and help ANSTO to engage with rural and regional schools. As Australia's only nuclear facility, ANSTO offers unique learning opportunities for senior secondary students who are studying physics and chemistry. ANSTO also facilitates highly popular professional development teacher programs to upskill science teachers.

A range of general public activities are hosted at the ANSTO Lucas Heights facility, including workshops and tours, where the benefits of nuclear science are showcased. ANSTO also provides a significant and interesting range of resources and articles via the ANSTO public website, making facts about the nuclear science industry freely accessible to Australians.

Partnerships with Aboriginal and Torres Strait Islander communities

ANSTO is committed to further strengthening mutually beneficial relationships, demonstrating respect and supporting employment and business opportunities for Aboriginal and Torres Strait Islander people communities under our Reconciliation Action Plan (RAP) framework.

ANSTO engages with the local communities of Dharawal people at Lucas Heights, the Boonwurrung people of the Kulin Nation at Clayton, and representatives in Canberra on Ngunnawal Country. There are interactions with other communities across Australia through research and outreach projects.

ANSTO shares its infrastructure and expertise to support research relating to Indigenous cultural heritage and other matters that benefit people and Country. There is an organisational commitment to appropriate and ethical interactions with Indigenous people and communities in undertaking and supporting research.

Regulatory environment

ANSTO operates within a complex and highly regulated business environment with varying degrees of accountability to more than 30 regulators across international, federal and state jurisdictions. ANSTO's main domestic regulators include the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), Australian Safeguards and Non-Proliferation Office (ASNO), Comcare and the Therapeutic Goods Administration (TGA).

Portfolio Budget Statements, Corporate Plan and Annual Report

ANSTO's Corporate Plan outlines purpose, strategy, performance measures, key activities and capabilities over the next 4 years. As our primary planning document, the Corporate Plan includes the full set of performance measures endorsed by the ANSTO Board. This builds on the performance measures outlined in the Portfolio Budget Statements (PBS). The Annual Report measures our results against this Corporate Plan and the PBS.

The relevant sections of the PGPA Act include:

s. 35 PGPA Act

Annual Report – Our Annual Report responds to certain legislative requirements regarding ANSTO's finances, governance, performance, and activities during the previous financial year. It reports against the PBS and Corporate Plan.

s. 46 PGPA Act

Portfolio Budget Statements (PBS) – Our PBS informs Parliament of the proposed allocation of resources to ANSTO. It is presented in the PBS for the Industry, Science and Resources portfolio.

s. 36 PGPA Act and Appropriations Bills (No. 1 and No. 2).

Planning and measuring performance

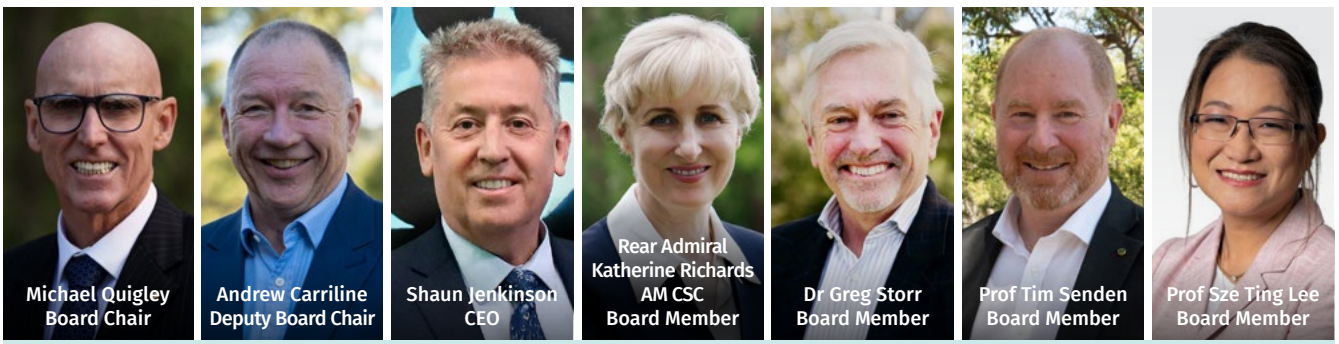
The integrated business planning (IBP) process provides a framework to ensure delivery on ANSTO's purpose and strategy within this Corporate Plan. A commitment to customers, partners and stakeholders remains at the forefront of planning activities.

Divisional and tactical implementation plans provide the foundation for the performance measures and key activities found within each strategic objective. Performance measures and key activities are endorsed by group executives.

The IBP process provides monthly checks on performance alignment with our strategy through measurement against our performance measures on a rolling 24 months.

ANSTO's planning cycle responds to the requirements of the PGPA Act and has 2 cycles: planning and forecasting; and reporting and performance.

Risk oversight and governance



The Board retains accountability for the application and integrity of our systems of risk and control. Our group executives are accountable to the Board and are responsible for implementing, monitoring and continuously improving these risk-management systems, and for integrating them into the day-to-day activities of the organisation.

Board

The ANSTO Board retains overall accountability for the governance of risk. The Risk and Audit Committee is appropriately mandated to assist the Board in giving effect to its accountability. The Board receives regular updates via the Risk and Compliance Committee on key risks. Measures relating to risk appetite and risk tolerance are considered and approved by the Board.

Management

The Board delegates responsibility to implement and execute effective risk management to the chief executive and the Risk and Compliance Committee (RCC). Group executives, as members of the RCC, are accountable for managing risks within their areas of responsibility, with delegated responsibility and ownership of their respective business areas.

Our Enterprise Risk Management (ERM) process

ANSTO's Enterprise Risk Management process is based on a clear understanding of ANSTO's strategic goals and the boundaries within which we operate. Our risk appetite defines these boundaries and provides guidance on how to engage with and manage risks and opportunities responsibly. Strategic risks are identified by considering strategy and operating environment, with key business imperatives forming the foundation. The link between strategy and strategic risks is strengthened by applying our ERM process across planning and decision-making, ensuring responses are effective, adequate and appropriate to prevent and mitigate any potential significant business impacts, and to ensure delivery on our strategy.

Strategic risk informed by:
Strategy, internal and external operating context and key business imperatives.

Key business imperatives:
Research and research infrastructure, commercial activities and expert advice.

Our risk-management process is iterative and applied in a dynamic operating context

1

Identifying and reviewing strategic risks

Key business imperatives, aligned with our strategy, guide and inform strategic risks. We regularly review strategic risks with due consideration of a dynamic internal and external operating environment. Strategic risks are benchmarked against available global, industry and peer company risk views.

2

Assessing, managing and responding to strategic risks

We assess and understand the potential impact of our strategic risks in relation to ANSTO's risk appetite and tolerance levels. We understand our capability to respond to our strategic risks by identifying and regularly reviewing the appropriateness and effectiveness of our responses.

3

Risk-management governance and assurance

Governance and oversight structures at Board and management level, and combined assurance arrangements, provide assurance on our strategic risks and risk-management processes in line with a 'three lines of defence' model. ANSTO's internal audit function provides the Board and the CEO with independent assurance over ANSTO's governance, risk and compliance arrangements, and systems of internal control.

4

Reporting on strategic risks

We report on our strategic risks to the relevant governance and oversight structures. Significant risks are reported and communicated to external stakeholders in accordance with statutory and regulatory requirements.

Applying our ERM process:
To identify, assess, manage, govern, assure and report on our strategic risks, and respond to increased and emerging risks being faced in the short, medium and long term.

Strategic risks

Risk themes and factors	Our key responses
Financial Fluctuations in our own source revenue and exchange rates may adversely affect our financial outcome.	• We have a 2-year rolling forecast which enables us to minimise the impact of fluctuations and to respond earlier when fluctuations are identified. • Exploring and pursuing viable revenue-gathering opportunities.
Capital expenditure/ investments Major capital projects face delays, cost overruns, or shifts in market conditions that affect delivery against time, cost, quality and benefit expectations. Smaller projects also carry similar risks if not governed with an appropriately scaled and risk-based approach.	• Management has established a Capital Committee and an ANSTO Enterprise Program Management Office. This provides an additional layer of governance and oversight for our key projects. • ANSTO will continue to strengthen project delivery through improved project planning and by implementing fit-for-purpose methodologies.
Safety and operations Our operations are subject to operating risks (e.g. accidents resulting in injury or the loss of life or property; environmental incidents; mechanical or design failures), which could result in significant operational impacts (e.g. inability to supply Mo-99 and/or medical isotope generators), regulatory non-compliance and legal claims for compensation.	ANSTO is committed to ensuring safety risks are reduced to as low as reasonably practical: • All operations are underpinned by a comprehensive WHS management system that is accredited to ISO 45001. • We embed subject matter experts (SME) at the design phase of projects. • SMEs support ANSTO activities through a prioritised approach in line with our ANSTO strategy. • There is an assurance process involving relevant SMEs for identified high-risk activities. • An ongoing program of works addresses legacy hazards including asbestos and electrical hazards. • A deep-dive safety culture audit process has been developed that meets international best practice and is implemented across site.
Stakeholders A decline in stakeholder confidence in our ability to deliver on our mandate could harm ANSTO's reputation and reduce demand for our products or services.	• Our engagement approach is based on open and effective communication and mutually beneficial outcomes where possible, as well as inclusiveness and integrity. Various processes are in place to proactively engage with stakeholders and to mitigate associated risks. • ANSTO's engagement strategy and key messages have been endorsed by the Board and executive. • ANSTO manages or participates in numerous committees and forums of the Australian Government, with participation contributing to stakeholder management, external messaging, risk identification/mitigation, and opportunity development. • ANSTO is the implementing agent for Australian participation in numerous international forums and projects, which helps to strengthen ANSTO's relationships with key nuclear organisations and associations, with attendant reputational enhancement in Australia.

Risk themes and factors	Our key responses
Market Increasing competition in the radiopharmaceutical market may have a negative effect on our business and financial outcomes. Our strategy includes development and commercialisation of new technologies, which may require significant investment and involve various risks and uncertainties.	• We proactively work with customers to ensure ANSTO is a preferred supplier through achieving service targets. • With NTP Radioisotopes, a South African-based global producer and supplier of nuclear medicine and radiation-based products and services, we leverage market supply and demand dynamics to diversify our source of export revenue (ongoing) for Mo-99. • We leverage I-131 market dynamics to grow local share and leverage excess capacity to grow export revenue. • We are seeking to expand Lu-177 production to 2 production runs, enabling ANSTO to meet growing local demand, with excess capacity being made available for export.
People ANSTO has a diverse workforce of nuclear and non-nuclear specialists, which is our greatest asset. We may not be successful in attracting, developing, and retaining employees with the skills and capabilities necessary to support ANSTO in achieving its strategic objectives.	ANSTO seeks to attract, develop and retain skilled employees through: • early career pathways – graduates, apprentices. • training and development programs. • a rigorous talent and succession process. • employee engagement surveys. • utilising contractors appropriately for short-term work and capital programs where expertise is required. • utilising individual contracts for senior and specialist staff, enabling remuneration that is closer to market levels. • Science in Australia Gender Equity (SAGE) accreditation.
Information technology We may face information security breaches or attempts to disrupt critical IT services, which may adversely affect operations.	• ANSTO systems security plan focuses on prevention, detection and containment through network security controls, intrusion detection, antivirus checks, firewalling, logging and monitoring, providing defence in depth. • Scheduled routine patching on both core production servers and non-legacy endpoints. • ANSTO follows the information security governance standards: Australian Government Information Security Manual and IAEA guidance. • We leverage cybersecurity services available through the Information Security Registered Assessors Program (IRAP) of the Australian Signals Directorate (ASD). • ANSTO invests in the development of key people capabilities. • Legacy systems are decommissioned.

Our subsidiaries

ANSTO subsidiaries	Jurisdiction of operation	Description
PETTECH Solutions Pty Ltd	New South Wales	PETTECH Solutions Pty Ltd (PETTECH) is a wholly owned ANSTO subsidiary which owns a cyclotron facility. On 2 January 2019, the operations of this company were sold to Cyclotek NSW Pty Ltd. PETTECH Solutions Pty Ltd, remains the owner of the major facility assets (building, cyclotron, and hot cells) and is entitled to a share of profits from the Cyclotek NSW business in connection with this arrangement.

Appendix

List of requirements

This Corporate Plan has been prepared in accordance with the requirements of:

- s 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act)
- Public Governance, Performance and Accountability Rule 2014 (PGPA Rule)
- RMG-132 Corporate Plan for Commonwealth entities

These are the required sections and the page reference(s) that show how our Corporate Plan meets these expectations:

Requirement	Page reference(s)
Introduction	
The Corporate Plan must include an introductory statement that: (i) states that the plan has been prepared for paragraph 35(1)(b) of the PGPA Act. (ii) specifies the reporting period for which the plan is prepared. (iii) specifies the reporting periods covered by the plan (this would usually be the minimum 4- year period covered by the Plan).	4
Purpose	
The Corporate Plan must include the purpose(s) of the entity. The purposes of an entity include the objectives, functions or role of the entity.	5
Key activities	
The Corporate Plan must identify the key activities that an entity will undertake during the entire period of the Corporate Plan in order to achieve the purposes of the entity.	4–27
Operating context	28–37
Environment – the environment in which the entity will operate	28–34
Capability – the capability required by the entity to undertake its key activities and to achieve its purposes	30–31
Risk management – the risk oversight and management systems, the key risks the entity will manage and how those risks will be managed	34–37
Cooperation – how an entity cooperates with others to achieve its purposes	32-33
Subsidiaries – how any subsidiaries will contribute to achieving the entity's purposes.	37
Performance	
The Corporate Plan must set out the details of how an entity's performance in achieving its purposes will be measured and assessed for each reporting period covered by the plan.	8–27

Glossary

Term	Description
ACNS	Australian Centre for Neutron Scattering
ADS 1&2	Advanced diffraction and scattering beamlines
AINSE	Australian Institute of Nuclear Science and Engineering
ANSTO	Australian Nuclear Science and Technology Organisation
ANSTO Act	Australian Nuclear Science and Technology Organisation Act 1987
ARPANSA	Australian Radiation and Protection and Nuclear Safety Agency
ASA	Australian Submarine Agency
ASD	Australian Signals Directorate
ASNO	Australian Safeguards and Non-Proliferation Office
AUKUS	Australia, United Kingdom, United States
BioSAXS	Biological small angle X-ray scattering beamline
CAS	Centre for Accelerator Science
CEO	Chief Executive Officer
CRISP	Current research information system and portal
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DBC	Detailed business case
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DFGN	Design Factory Global Network
DIFOT	Delivery in full and on time
DISR	Department of Industry, Science and Resources
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
EPD	Electronic personal dosimetry
ERM	Enterprise Risk Management
ESD	Ecologically sustainable development
FTE	Full time equivalent
HVAC	Heating, ventilation and air-conditioning
I-131	Iodine-131
IAEA	International Atomic Energy Agency
IBP	Integrated business planning
ILWCI	Intermediate-level waste capacity increase
IR	Infrared
IRAP	Information Security Registered Assessors Program
ISO	International Organisation for Standardisation

Term	Description
LIMS	Laboratory information management system
Lu-177	Lutetium-177
MCT	Microcomputed tomography beamline
MEX 1&2	Medium energy X-ray absorption spectroscopy beamlines
Mo-99	Molybdenum-99
MS	Mass spectrometry
MX3	High performance macromolecular crystallography beamline
NANO	X-ray fluorescence nanoprobe beamline
NATA	National Association of Testing Authorities
NCRIS	National Collaborative Research Infrastructure Strategy
NDF	National Deuteration Facility
NEA	Nuclear Energy Agency
NMMF	Nuclear Medicine Manufacturing Facility
NMR	Nuclear magnetic resonance
NPS	Nuclear-Powered Submarine
NPSRD	Nuclear-Powered Submarine Regulatory Design
NSSC	Nuclear security science capability
NTD	Neutron transmutation doped
OECD	Organisation for Economic Cooperation and Development
OFI	Opportunities for improvement
OPAL	Open Pool Australian Lightwater
PBS	Portfolio Budget Statements
PGPA Act	Public Governance, Performance and Accountability Act 2013 (Cth)
RAP	Reconciliation Action Plan
RCA	Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology in Asia and the Pacific
RCC	Risk and Compliance Committee
RIMS	Research infrastructure management system
RCMS	Reactor control monitoring system
SAGE	Science in Australia Gender Equity
SME	Subject matter experts
STEM	Science, technology, engineering, and mathematics
Tc-99m	Technetium-99
TGA	Therapeutic Goods Administration

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