



Australian Government
**Australian Radiation Protection
and Nuclear Safety Agency**



CORPORATE PLAN

2021 2022

COVERING THE PERIOD
2021-22 TO 2024-25

An aerial photograph of Australia, showing the continent's diverse terrain from arid redlands to lush green coastal areas, surrounded by the blue ocean. The image is partially obscured by a purple-to-green gradient overlay on the left side.

ACKNOWLEDGEMENT OF COUNTRY

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) respectfully acknowledges Australia's Aboriginal and Torres Strait Islander communities and their rich culture and pays respect to their Elders past and present. We acknowledge Aboriginal and Torres Strait Islander peoples as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely.

We recognise and value the ongoing contribution of Aboriginal and Torres Strait Islander peoples and communities to Australian life and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

CEO FOREWORD



I am looking forward to continuing our service to the Australian community as the Australian Government's primary authority on radiation protection and nuclear safety. This Corporate Plan outlines how our day-to-day activities will support the agency's purpose and builds on the significant steps we have taken to mature our strategic planning and performance information. ARPANSA's role is diverse, with integral and complex functions that align our resources and enable us to achieve our purpose.

Radiation has always been a natural part of our environment. Every day we are exposed to radiation from natural sources as wide-ranging as outer space (cosmic radiation), the sun (ultraviolet radiation), and bedrock in our normal environment (e.g. radon gas). We are also exposed to artificial sources of radiation that have been introduced over the past century. The use of radiation in medical procedures is now the largest source of exposure to the population, with powerful sources of radiation often necessitated for cancer treatment. Radiation sources are further used for a variety of purposes, such as sterilising

medical devices such as syringes and surgical gloves, the production of nuclear medicines and for communication (radiofrequency radiation). There are also workplaces with elevated levels of radiation of either natural or artificial origin, such as mines and radiology practices. The continued exposure to radiation from natural sources and the use of radiation for beneficial purposes means that ARPANSA will continue its efforts to protect people and the environment from the harmful effects of radiation. I am pleased to present ARPANSA's 2021–22 Corporate Plan, which includes our key strategic activities, updated performance indicators and key risks. Working together with ARPANSA's dedicated and highly capable staff, we will endeavour to deliver according to the targets outlined in this plan, with the aim of protecting the Australian community and environment from the harmful effects of radiation.

Statement of preparation

I, Carl-Magnus Larsson, as the accountable authority of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), present the 2021–22 ARPANSA Corporate Plan, which covers the period of 2021–22 to 2024–25, as required under paragraph 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013*.

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INTRODUCTION

Our Purpose

Our purpose is to protect the Australian people and the environment from the harmful effects of radiation.

Key Activities

The ARPANSA program of work entails four key strategic activities that guide our priorities and contribute to delivering radiation protection and nuclear safety outcomes to the Australian community:



INTRODUCTION

Our role

ARPANSA provides the Australian Government and community with:



Expertise

We build and maintain expertise in measurement of radiation and assessment of health impacts, including the assessment of risks and responses to radiation emergencies.



Best Practice

We lead the development of codes, standards, guides, and advice to support radiation protection and nuclear safety throughout Australia and play a prominent role in relevant international organisations.



Advice

We provide high quality advice to the government and the community on issues related to exposure and effects of radiation, radiation protection and nuclear safety.



Services

We offer high quality services for the purpose of protection against the harmful effects of radiation.



Regulation

We use our licensing powers and work with Commonwealth entities to ensure the safety of radiation sources and facilities, using a risk-informed regulatory approach.



Research

We undertake research and development and build strategic partnerships with relevant national and international academic and research organisations.

PLANNING

Our Corporate Plan is a central part of our business planning, budgeting and reporting process that integrates agency wide initiatives against our key activities. The plan demonstrates the interdependencies of all planning information, providing context as to how resources will be prioritised to meet our purpose.

This plan is directly aligned to the relevant outcomes and programs set out in the Department of Health 2021–22 Portfolio Budget Statements (PBS), specifically:

- Outcome 1: Protection of people and the environment through radiation protection and nuclear safety research, policy, advice, codes, standards, services and regulation
- Program 1.1: Radiation protection and nuclear safety
- Program 1.9: Health Protection, Emergency Response and Regulation.

The Department of Health (Health) contributes to Outcome 1 as Health has strategic regulatory policy and national leadership responsibility for radiation protection and nuclear safety, with particular regard to the regulatory framework. This includes best practice for radiation and nuclear safety health technologies.

This Corporate Plan is complemented by our internal business plan and governance processes, that ensure team and individual performance activities are aligned with our purpose. The interrelationship between elements of the Corporate Plan and the Commonwealth performance framework is illustrated in figure 1.

PLANNING

Input

The PBS is primarily a funding document. It sets out funding allocated to the department to achieve the outcomes set by government. It also details how we will measure the impact of that expenditure on the Australian community.

Planning

The Corporate Plan is primarily a strategic planning document. It sets out our purpose, the key activities we will undertake to achieve our purpose and the results we expect to achieve over the next four years.

Results

The Annual Performance Statements are produced at the end of the reporting cycle and provide an assessment of how we have progressed towards achieving our purpose. It includes results against planned performance included in the PBS and Corporate Plan.

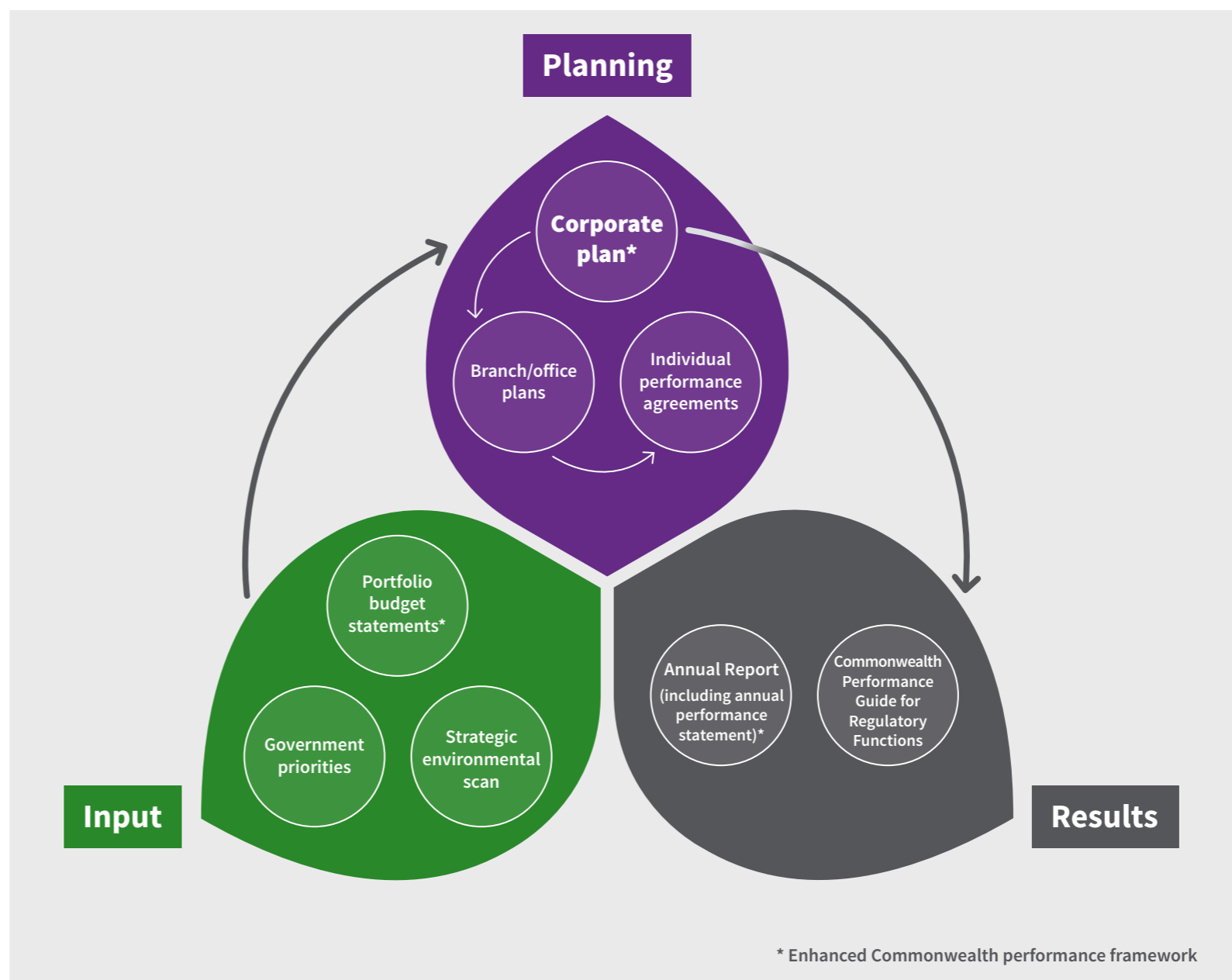


Figure 1: How ARPANSA's planning, and performance cycle works

ENVIRONMENT

ARPANSA regulates Commonwealth entities who use radiation and is responsible for promoting safety through the research we undertake, and the advice and services we provide. Radiation protection and nuclear safety is decidedly technical and so it presents a complex operating environment, with longstanding and emerging challenges. Fundamentally, our work is about protecting the Australian people and the environment from the harmful effects of radiation, part of which is achieved in partnership with radiation regulators in the states and in the territories.

Ionising and some non-ionising radiation is known to damage cell DNA, leading to potentially serious health effects such as cancer, which contributes significantly to the national health and economic burden. Skin cancer, predominantly caused by ultraviolet (UV) radiation from the sun, is one of the most preventable forms of cancer and, if detected early, often treatable. Australia's skin cancer incidence and mortality rates are among the highest in the world. It is heavily influenced by factors such as our climate, national demographics, our proximity to the equator (high UV levels) and our social attitudes to the outdoors.

ARPANSA works with stakeholders to promote 'SunSmart' practices and influence behaviour as well as providing other services and publishing information to improve people's understanding of the risks associated with radiation. ARPANSA works closely with the medical sector to ensure that radiation exposures delivered to patients in medical imaging are as low as reasonably achievable while still delivering clinical objectives. ARPANSA maintains the Australian Primary Standard for absorbed dose and calibrates hospitals' dose detectors against this standard to ensure that the correct amount of radiation is being delivered to more than 70,000 cancer patients being treated using linear accelerators (linac) in Australia per year.

Exposures to other sources of radiation found in our environment are generally low but variable. As technology advances, ARPANSA continually reviews emerging science about risks from ionising and non-ionising radiation and engages with stakeholders, including community groups, to inform risk assessments. The continued advancement and use of electromagnetic energy (EME) in wireless services such as 5G will form the focus of our specialised research program over the next four years. ARPANSA will assess EME exposure from existing and new

telecommunications technologies, like 5G, and engage international forums (such as the World Health Organization), to inform standards and provide expert scientific advice. A major feature of the new program is the construction of a new anechoic chamber that will cater for millimetre wave frequencies that will be used in future 5G technologies, and beyond.

Our regulatory landscape is influenced by plans and public perception regarding the management of radioactive waste, including disposal. The Australian Government has initiated a process to build a National Radioactive Waste Management Facility (NRWMF) in South Australia. The facility, intended only for waste of domestic origin, will manage the disposal of low-level radioactive waste and serve as a storage facility for intermediate level waste held by the Commonwealth. Siting, construction and operation of the facility requires licences issued by ARPANSA, which in turn requires significant planning and resourcing within ARPANSA.

The COVID-19 pandemic, including recurrent lockdowns in Victoria and New South Wales, where ARPANSA's offices are located, led to the rapid implementation of infrastructure to support home-based work. Our ambition is to build on the successes while recognising the limitations, and to move forward towards future work arrangements that support increased flexibility. The development of the future work arrangements will be carried out collaboratively across the agency and be informed by the experiences of similar agencies and advice from the Australian Public Service Commission and the Australian Government.

The COVID-19 pandemic also presents challenges as to how we engage internationally. As more flexible modes of service delivery are continuing to evolve, adaptive virtual working arrangements will be maintained where an international presence is required. Through our engagement with the International Atomic Energy Agency (IAEA), World Health Organization (WHO), International Commission on Non-Ionizing Radiation Protection (ICNIRP), International Commission on Radiological Protection (ICRP), and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), we will integrate the leading international scientific knowledge and best practice into our regulatory activities, advice and services, and into our promotion of national uniformity of policies and practices across Australia.

CAPABILITY

Workforce

ARPANSA recognises the professionalism, capability and diligence of our staff, who are committed to our purpose and take pride in the role our agency plays nationally and internationally. Many of our staff are international leaders in their field and are engaged across several complex and wide-ranging functions to meet our remit of being the Australian Government's primary authority on radiation protection and nuclear safety. This can only be sustained through continued investment in workforce planning and capability development. As part of our attraction and recruitment strategy, our focus will be on ensuring that the agency recruits and retains people aligned with Australian Public Service (APS) values. ARPANSA is committed to ensuring that its people strategies and wellbeing practices support the delivery of our key activities. In 2021–22 we will design a workforce plan and learning and development framework to address capability requirements and invest in initiatives that support the needs of our highly skilled and technically proficient workforce.

ARPANSA recognises that diversity and inclusion programs create a workplace where people feel supported to achieve their potential. We will continue to build an inclusive workplace culture that leverages the power of our differences to achieve better results. And we will safeguard the health and wellbeing of our employees whilst minimising the impact to our business operations and sustaining productivity.

Infrastructure

ARPANSA manages and maintains a number of business-critical specialised assets and infrastructure, including buildings, laboratories, instrumentation and mobile equipment. The agency has a detailed program of works to better support technology, accommodation and facility needs of the agency in the most cost-effective manner. The program of works comprises ongoing facility maintenance and refurbishment, replacement of assets and equipment that are nearing end of life, and upgrade of infrastructure to modern standard. ARPANSA has also commenced an upgrade of our security systems to ensure we maintain secure and continuous delivery.

Following the extensive tender process and selection of preferred suppliers in 2020–21, ARPANSA will start the construction of a new anechoic chamber and associated field measurement equipment as part of our enhanced EME program. The upgrades will enable ARPANSA to expand its research and deliver better information and education to build the Australian community's understanding regarding the health implications of technologies that utilise EME.

CAPABILITY

ICT

ARPANSA's technology, information and data systems strategy support the delivery of our regulatory, scientific, consultative and business operations. As part of our Digital Technology Plan, ARPANSA will continue to implement digital technology initiatives to enhance service delivery, improve customer experience and streamline business processes. ARPANSA will be delivering in-house digital cross-skilling programs to increase ARPANSA's maturity and change attitudes in considering digital options as part of solutions. We will also continue to strengthen our cyber security capability through further investment in our cyber security strategies.

In line with the Australian Government's overall strategy to transform our service delivery via customer-centric business systems and as part of our Platforms and Systems Roadmap, in 2021–22 ARPANSA will commence the staged implementation of laboratory information management systems that will enhance the management and delivery of our scientific services to ensure a responsive and sustainable future. Improvements to internal communication and information dissemination will commence to support effective collaboration and the further development of the ARPANSA Management System (AMS).

Scientific expertise

ARPANSA will continue to promote a culture that ensures our advice is based on high quality scientific research and maintains our scientific integrity. We will continue to encourage and enhance innovation and research through our collaboration and partnerships with key stakeholders to ensure relevant, trustworthy and high-quality research is undertaken to support radiation protection, nuclear safety, safety in medical uses of radiation and regulatory activities.

In 2021–22, ARPANSA will continue the implementation of the EME action plan, key milestones will include the completion of a new anechoic chamber to support EME research and the implementation of the EME Program Research Framework. ARPANSA will also have an enhanced capability for medical research activities with upgraded linac facilities. These improvements ensure that ARPANSA will continue to provide high quality scientific research conducted with modern scientific and technological capabilities, ensuring the effective management of radiation risks.

In 2021–22, ARPANSA will also commence the purchase, assembly and commissioning of a new primary standard for megavoltage ionising radiation for Australia, a project that will run until 2023–24. The new standard will be the new dose reference for all radiotherapy throughout Australia, and all patient treatments will be traceable to it. The new Primary Standard will be capable of measuring proton beams, recognising and under-pinning the national investment in Australian Bragg Centre for Proton Therapy, and any other clinical facilities which may be built in the future. Once implemented the new Primary Standard will ensure accurate calibration of reference ionisation chambers, underpinning hospitals, industry and audits for at least two decades.

COOPERATION

As the independent regulator of Commonwealth entities who use or produce radiation, ARPANSA is focused on ensuring its safe and secure use. However, ARPANSA does not perform this role in isolation. There are other Commonwealth regulators with a safety or security focus, encompassing a broad range of activities involving radiation. These include the Australian Safeguards and Non-Proliferation Office, Comcare, the Department of Agriculture, Water and the Environment, the Civil Aviation Safety Authority, and the Australian Maritime Safety Authority. Coordination mechanisms have been established with these agencies through either memoranda of understanding (MoUs) or regular meetings which aim to reduce and manage areas of uncertainty, or any areas of overlap that could create conflicting requirements for authorised parties.

ARPANSA works closely with Commonwealth departments and agencies that develop policies affecting radiation protection and nuclear safety. ARPANSA's main partner in this is our portfolio department, the Department of Health. ARPANSA provides specialist advice to influence the development of health policy and outcomes. ARPANSA partners similarly with the Department of Agriculture, Water and the Environment and the Department of Infrastructure, Transport, Regional Development and Communications.

ARPANSA provides specialist advice, services and research to a suite of stakeholders. These include Food Standards Australia and New Zealand, the Department of Defence, universities and health organisations such as the Cancer Councils of Australia, Victoria, and New South Wales, respectively.

Over the coming years, ARPANSA will continue to leverage its co-operative arrangements with Australian universities and other institutions such as hospitals, and further expand it to promote research related to health impact of radiation and health protection, and to broaden the competence basis for major licensing reviews of existing, modified, or new facilities, including nuclear installations.

ARPANSA also engages and coordinates with radiation safety regulators from the States and Territories. One of the main avenues for cooperation is the Radiation Health Committee (RHC), which provides a forum to collaborate and jointly develop radiation protection codes and standards, among other issues, that promote national policies and practices. This partnership enables ARPANSA to publish

Fundamentals, Codes and Guides and facilitates uniform implementation across Australian jurisdictions. ARPANSA has also engaged in MoUs on cooperative work with several jurisdictions and plans to broaden this collaboration in the coming years.

ARPANSA also supports the Environmental Health Standing Committee (enHealth), a standing committee of the Australian Health Protection Principal Committee (AHPPC). enHealth is responsible for providing agreed environmental health policy advice, consultation with key stakeholders, and the development and coordination of research, information, and practical resources on environmental health matters at a national level. With the support of its Radiation Health Expert Reference Panel, this includes the development of national policies and strategies for radiation protection and addressing of multi-jurisdictional findings from the 2018 Integrated Regulatory Review Service (IRRS) mission.

Since receiving the IRRS report in 2019, Australia has been working to implement the findings from the report, which included 23 recommendations and 12 suggestions for improvement. A national action plan that provides a governance structure for monitoring progress against the findings has been developed and endorsed by the AHPPC. It is publicly available on ARPANSA's website. enHealth is responsible for managing the multi-jurisdictional findings. ARPANSA has developed its own governance framework to progress findings that were addressed solely to the agency.

ARPANSA's international cooperation includes a range of multilateral and bilateral partnerships and networks. These partnerships enable ARPANSA to shape international best practice for regulation and advice on radiation protection and nuclear safety. One of ARPANSA's most prominent international partners is the IAEA whereby ARPANSA representatives sit on committees that develop safety standards for nuclear, radiation, waste and, transport safety, and for emergency preparedness and response. Agency specialists also support dedicated IAEA training courses on a range of issues. ARPANSA closely cooperates with the World Health Organization, where the agency is a Collaborating Centre for radiation protection. ARPANSA works with the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) through the management of Australia's radionuclide detection network. ARPANSA representatives hold positions on international scientific bodies such as the UNSCEAR, ICRP, and ICNIRP.

PERFORMANCE

Our performance information in this Corporate Plan is presented under four Key Activities which are translated into practice through our initiatives and projects. ARPANSA will focus on the effectiveness of our initiatives and has worked on ensuring performance measures appropriately capture the outcomes and impacts that we want our Key Activities to achieve.

We recognise the importance of maturing our performance information and continue to improve the way we describe and measure success. This year, ARPANSA has developed initiatives that will provide a more meaningful narrative of our performance and demonstrate our achievements against our purpose. For further information please refer to Appendix 1.

ARPANSA's planned performance for the next four years, as contained in the 2021–22 Portfolio Budget Statements, are included in this section. These provide high level performance information for current, ongoing programs, forecasting performance for the current year.

Progress against the measures and projects outlined in our Corporate Plan will be monitored and reported to our Strategic Management Committee and the Audit and Risk Committee on a quarterly basis. High level performance results will be reported in the 2022–23 PBS, against the performance criteria. Our annual performance statement, as part of the 2021–22 ARPANSA Annual Report, will provide a detailed perspective of performance results and utilise case studies as a qualitative evaluation of significant projects to demonstrate key activity performance.

1

Initiate, maintain and promote frameworks for protection and safety

ARPANSA will develop our scientific knowledge to support the frameworks for radiation protection and nuclear safety. These frameworks sit across various sectors, nationally and internationally and provide guidance that facilitates optimisation of protection against radiation exposure and any associated health detriment. Proactively, we will continue to support the national skin cancer prevention program, to reduce the incidence of skin cancer in Australia, and cooperate nationally and internationally with the World Health Organization to support global skin cancer prevention initiatives.

Medical procedures in diagnosis, intervention and therapy are the largest source of ionising radiation exposure to the Australian population. ARPANSA seeks to ensure that all use of radiation in medical procedures is justified and takes due account of patient safety. We engage with this aim through calibration, auditing, education and a diagnostic survey program, all of which aim to influence practices and behaviour of our audience. Through systems like the Australian National Radiation Dose Register (ANRDR) ARPANSA publishes insights into industry trends and comparisons across different work practices to show just how effective radiation protection programs are and help in establishing guidelines to support optimisation of worker protection.

ARPANSA will continue work on its EME program through continued implementation of the EME Action Plan published in 2020. This involves undertaking and partnering on new EME research, undertaking measurement studies, and providing expert advice on EME and health. This program of work will create clear, reliable and reputable information accessible to all Australians.

We will continue to enhance our relationships and profile across government, including to assist with promoting outcomes to strengthen uniformity of radiation protection regulation. Effective international relations will also play an important role in our ability to deliver against this objective, particularly as we support meeting Australia's international obligations for radiation protection, nuclear safety and accident reporting. We will continue to focus on securing valued international partnerships and building our reputation with key international stakeholders.

ARPANSA will support a national approach to the secure and safe management of radiation sources, radiation facilities and nuclear installations. We will deliver this by supporting national and regional arrangements for preventing accidents and security events that may lead to radiation exposure and maintaining and enhancing our emergency response systems that protect the Australian community in the case of a radiological or nuclear event.

ARPANSA will also continue to work collaboratively across government and all jurisdictions to implement Australia's National Action Plan for Health Security 2019–2023, developed to address the recommendations made in regard to radiological emergencies, by the WHO in Australia's Joint External Evaluation Report. While progress was significantly impacted in 2020-21 as a consequence of the COVID-19 pandemic, understanding and developing national capacity and capability in Emergency Preparedness and Response (EPR) in line with international best practice remains a priority.

Initiatives

The initiatives to achieve the intended results for this Key Activity are:



develop and communicate risk-informed protection strategies



develop Codes and Standards, and clarify regulatory expectations for nationally consistent implementation



promote the safe and effective use of medical radiation



engage stakeholders to improve radiation safety, enhance quality of decisions, standards and information material.

1

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
1*	Number of Diagnostic Reference Level (DRL) surveys per category are sufficient to infer national characteristics per annual survey period.	>2400 surveys per reporting period	★	★	★
	<i>Methodology: Examination of survey data submitted to the National Diagnostic Reference Level Service (NDRLS). This contributes to the reduction in patient dose associated with diagnostic imaging.</i>				
2*	Monitor radiation doses to occupationally exposed workers to provide evidence of optimisation of radiation protection.	Provision of the ANRDR annual newsletter 'ANRDR in Review', reporting trends of radiation doses received by workers.	Radiation doses indicates optimisation of radiation protection.		
	<i>Methodology: The ANRDR collects information on quarterly-assessed radiation doses for a range of dosimetric quantities and exposures. The data collected is used to monitor individual doses and generate annual statistics related to exposure trends.</i>				
3	Compliance with international radiation protection and nuclear safety and security related agreements and treaties.	Submission of Australian National reports and completion of the peer-review processes as per the requirements of peer review and/or periodic meeting schedules.	★	★	★
	<i>Methodology: Determined through the submission of National Reports to the review meetings for the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management (Joint Convention), the Convention on Nuclear Safety (CNS), and Meeting of the Competent Authorities of the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency (ENAC).</i> <i>ENAC 2022 & 2023-24; Joint Convention 2022 & 2024-25; CNS 2022-23</i>				

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
4*	Provide dosimetry support and measurement services to radiotherapy clinics.	45 audits delivered according to schedule.	★	★	★
	<i>Methodology: Measured progressively and reported quarterly. The National radiation oncology dosimetry audit program ensures accurate and safe treatment delivery for over 70,000 cancer patients across Australia and New Zealand.</i>				
5	Engagement with stakeholders to support information exchange on the proposed licence application to site a NRWMF.	Undertake stakeholder engagement activities for the proposed NRWMF prior to the receipt of a potential licence application. If, and when, a licence application to site a NRWMF is received.	Pending based on receipt of siting licence		
	<i>Methodology: Evaluated and reported annually via formal submissions, information/consultation meetings; web-based mechanisms hearings; or a combination of several of these activities.</i>				

* Indicates where performance will be measured against an unchanged target.

★ Applicable reporting period for which the performance measure will be assessed.

1

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
PBS-1 [^]	Provide high quality advice to government and the community on health, safety and environmental risks from radiation.	Identify, assess and communicate health, safety and environmental risks from radiation to the Australian Government and community through research, communication, provision of radiation protection services, and community consultation and awareness activities.	★		
		Provide information, advice and standards on electromagnetic energy and health to the Australian Government and community through exposure assessment, research, facility upgrades and engagement with international health authorities.	★		
<i>Evaluated based on the continued provision of expert, specialised resources, and services.</i>					
PBS-2 [^]	Provide emergency preparedness and response systems for a radiological or nuclear incident.	Emergency preparedness and response systems for field, network and laboratory measurements, and information management and decision support systems, are calibrated, tested and exercised to ensure availability, and personnel are trained.	★		
		<i>Based on data collected via network and laboratory measurements, as well as information management and decision support systems.</i>			

[^] Measures that appear in the Portfolio Budget Statements.

★ Applicable reporting period for which the performance measure will be assessed.

Explanation of changes since 2019-20 Corporate Plan: The performance measures have been consolidated to achieve greater consistency within the agency and purposefully reflect the activities that contribute to agency performance. To do so, performance measures have been reworded to provide greater transparency and facilitate awareness and understanding.

Projects

We will also demonstrate our performance through delivery of the following projects:



EME Program

Build and operationalise an anechoic chamber.
Estimated completion date: Dec 2022



Integrated Incident Management Framework

Implementation of a streamlined incident management system which will promote a consistent response.
Estimated completion date: Dec 2022

2

Undertake research and provide expert evaluations, advice and services

ARPANSA is responsible for providing accessible, evidence-based and risk-informed advice to the Australian Government, industry and the public through the work we do. Our aim is to promote continuous improvement and provide useful and current information to a broad range of audiences so practices can be optimised.

To aid us in the delivery of this activity we strive to understand our stakeholder's needs and meaningfully communicate and engage on topics of interest. ARPANSA builds partnerships with a range of stakeholders in targeted areas of scientific research, we undertake research, surveys and studies to better our understanding of the effects of radiation and we produce technical reports based on data analysis. We also promote education through our Talk to a Scientist program, which connect members of the public with ARPANSA scientists directly to address questions or concerns about radiation and nuclear issues.

ARPANSA also offers a range of high quality NATA accredited scientific activities and services to characterise sources of radiation exposure, to assess the risks to people and the environment from exposure to radiation, and to reflect this understanding into advice and guidance to the public, Government and other stakeholders.

Our Primary Standard Dosimetry Laboratory (PSDL) is one of about 15 laboratories of its kind in the world, providing the primary traceable dose reference for all megavoltage radiotherapy delivered to patients across Australia. Our personal radiation dosimetry service is the only NATA accredited service that operates all of its services onshore in Australia. ARPANSA provides laboratory testing services to Australian and international customers for sunglasses, shade cloth, window films, clothing and fabrics to determine, and certify (if required) via ultraviolet protection factor (UPF) swing tags the level of protection these materials provide against ultraviolet (UV) radiation from the sun. We also provide calibration services for a range of radiation meters.

In delivering all these services, ARPANSA strives to ensure that its capabilities and expertise are high quality, sustainable and reflect best practice in radiation protection.

Initiatives

The initiatives to achieve the intended results for this Key Activity are:



undertake hazard identification, exposure analysis and risk assessments for scenarios involving exposure to radiation



maintain and disseminate the National Primary Standard for absorbed dose



operate the stations and laboratory that form part of the Australian operated component of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) International Monitoring System



operate and effectively deliver a range of radiation protection related services



provide information to support and enable stakeholders to make informed decisions regarding the safe and effective use of radiation



enhance UV-radiation protection of the public by providing data and promoting strategies for prevention of health effects related to UV skin and eye exposures.

2

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
6*	High quality research in radiation protection, nuclear safety and medical exposures to radiation to understanding of radiation and its effects among professionals and the public.	ARPANSA to publish >6 peer-reviewed publications	>7	>7	>8
	<i>Methodology: Peer reviewed publications determined by emerging issue and of public interest will be published online progressively and reported on quarterly.</i>				
7*	Operation of the CTBTO (Comprehensive Nuclear-Test-Ban Treaty Organisation) International Monitoring System (IMS) radionuclide stations to meet CTBT targets for data availability.	Stations operational and reporting verified data to the CTBTO at >95% average per reporting period	★	★	★
	<i>Methodology: Data collected from IMS stations maintained by ARPANSA located in Australia and its territories, Fiji and Kiribati</i>				
8*	Operation of the ultraviolet radiation (UV) monitoring network with a high level of data availability to the public.	UV monitoring network data available to the public >95% of the time	★	★	★
	<i>Methodology: Data extracted from UV network monitoring system and analysis based on average network availability over year</i>				

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
9	High quality and efficient radiation protection services are provided to customers.	Establish baseline	Positive change in survey results observed		
	<i>Methodology: Utilisation of the ARPANSA customer services satisfaction survey and efficiencies in service delivery are implemented based on customer feedback to improve effectiveness.</i>				
10	Percentage of time the 'Talk to a Scientist' call centre is made available to the public as advertised.	>95%	★	★	★
	<i>Methodology: Analysis of monthly reports from talk to scientist system - average per reporting period.</i>				

* Indicates where performance will be measured against an unchanged target.

★ Applicable reporting period for which the performance measure will be assessed.

2

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
PBS-3 [^]	Promote patient safety in radiotherapy and diagnostic radiology.	Report annually on significant deviations and trends discovered through the Australian Clinical Dosimetry Service (ACDS) and Diagnostic Reference Level (DRL) programs.	★		
	<i>Measured through a combination of annual publications and evaluations based on data collected from the ACDS and DRL programs.</i>				

[^] Measures that appear in the Portfolio Budget Statements.

★ Applicable reporting period for which the performance measure will be assessed.

Explanation of changes since 2019-20 Corporate Plan: These performance measures have been re-evaluated to reflect an evolution in strategic planning and realignment of initiatives against Key Activities. This has been focused on maintaining a fit-for-purpose performance structure and continuous improvement in the quality and accessibility of performance reporting across the agency. Efficiency measures have not been utilised due to the potential impacts on consistency of service delivery and costs associated with data collection.

Projects

We will also demonstrate our performance through delivery of the following projects:



Radiation Protection of Patients (RPOP) Review

An updated online RPOP training package and associated referrer and patient supporting material.
Estimated completion date: Jun 2022



CTBTO IMS monitoring station upgrades

Deliver, in cooperation with the CTBTO, upgrades to the Macquarie Island radionuclide monitoring station.
Estimated completion date: Jun 2023



Sunscreen testing

A collaborative research program between ARPANSA, RMIT University and Cancer Council Victoria (CCV) to develop evidence-based methodologies for in vitro (non-human) testing of sunscreen.
Estimated completion date: Jun 2022



A primary standard water calorimeter for protons, photons and electrons in the Megavoltage range

Commission and deliver a new Primary Standard water calorimeter to underpin radiation oncology treatment domestically.
Estimated completion date: Dec 2024

3

Ensure effective and risk-informed regulation

ARPANSA takes a graded, risk-informed approach to regulation of radiation sources, radiation facilities and nuclear installations across the lifecycle. The regulatory approach aims to avoid unnecessary regulatory burden by not unduly limiting justified practices involving radiation. Effective regulatory actions will be taken, including enforcement actions as appropriate and required.

Regulatory focus will be on promoting mature processes, attitudes, and behaviours among licensed entities so that their activities can be carried out safely with minimised risk to the workers, public and environment. Plans and arrangements will also have to be put in place to maintain safe states in case of planned or unplanned outages, or following unforeseen events. Plans must also be in place for post-operational safety, including safe decommissioning of facilities and safe management of radioactive waste including its disposal. Using review and analysis we will continually improve ARPANSA's regulatory processes for the benefit of Commonwealth licence holders, applicants, and the Australian community to ensure that regulation is not only effective but also efficient. ARPANSA will work with State and Territory jurisdictions to promote national uniformity in radiation protection policies and practices throughout Australia.

Initiatives

The initiatives to achieve the intended results for this Key Activity are:



using a holistic approach, influence licence holders to improve safety culture, inclusive of leadership and management for safety



monitor and report on regulatory performance and compliance to promote continuous improvement



provide a risk-informed and fit-for-purpose regulatory framework and standards for safe management of sources and facilities, including nuclear installations, over the entire life cycle



adopt and implement the Commonwealth Performance Guide for Regulatory Functions to monitor and enhance the efficiency of ARPANSA's regulatory performance.

3

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
11*	Communication with regulated entities is open and transparent.	>20 Information sharing meetings are held with licence holders.	★	★	★
	<i>Methodology: ARPANSA will report on the number of meetings held annually and evaluate any feedback received, to determine if the communication is effective.</i>				
12*	Independent environmental monitoring of airborne discharges and radiation dose rates near major nuclear installations to verify public doses are low.	Publish a yearly summary of independent monitoring results at ANSTO.	★	★	★
	<i>Methodology: Assessed through the analysis of Australian Radiation Monitoring System (ARMS) gamma dose rate data, captured via an automated cloud-based system. Environmental and stack radiation levels are verified in ARPANSA's radiochemistry laboratory.</i>				
13*	Commonwealth licence holders apply the principles of radiation protection:	The radiation dose of the 100 most exposed workers at licensed Commonwealth entities trends downwards over the monitoring period.	Continued reduction in exposed workers radiation dose trends.		
	<ul style="list-style-type: none"> • justification • optimisation • limitation 	<i>Methodology: Assessed through the quarterly dosimetry data submitted by licensed Commonwealth entities to personal radiation monitoring services. Any observed trends are assessed to identify causal association.</i>			

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
14	Implement regulatory activities in accordance with Commonwealth Government guidelines for regulator performance.	An annual review of regulatory performance is undertaken and demonstrates conformance with Commonwealth Government guidance for regulatory functions.	★	★	★
	<i>Methodology: ARPANSA will use performance information and data from to track performance on a quarterly basis. An annual review, using a claims, arguments and evidence approach will be conducted to establish if essential controls are applied with minimal burden by a risk informed, open, transparent, and trusted service.</i>				
15	Constructive feedback from licensed entities is encouraged to highlight strengths and opportunities are used to drive improvements in our regulatory approach.	A baseline will be established so this index of key performance can be trended.	Increase in index trend demonstrating improvements.		
	<i>Methodology: The index is formed from measures of inspection schedule and assessment decision adherence, and satisfaction levels for the time to issue reports and make regulatory decisions.</i>				

* Indicates where performance will be measured against an unchanged target.

★ Applicable reporting period for which the performance measure will be assessed.

3

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
PBS-4 [^]	Ensure protection of people and the environment through efficient and effective regulation.	Finalise the 14 ARPANSA-specific findings from the International Atomic Energy Agency Integrated Regulatory Review Service (IRRS) mission to Australia. Support the implementation of multi-jurisdictional findings via the enHealth process, including development of the National Strategy for Radiation Protection.	★		
		<i>ARPANSA has completed 9 of the findings addressed. ARPANSA will aim to close out all findings in accordance with requirements in the IRRS action plan.</i>			

[^] Measures that appear in the Portfolio Budget Statements.

★ Applicable reporting period for which the performance measure will be assessed.

Explanation of changes since 2019-20 Corporate Plan: The performance measures are partially unchanged but have been consolidated to achieve greater consistency within the agency and promote alignment with emerging regulatory requirements. A mix of qualitative & quantitative (output and effectiveness) measures have been utilised to provide a picture of impact made. Given the nature of this work is efficiency measures are not considered appropriate considering stakeholder requirements.

Projects

We will also demonstrate our performance through delivery of the following projects:

National Radioactive Waste Management Facility Project (NRWMF)



Preparation to receive a licence application for the NRWMF ensuring appropriate resourcing for the conduct of assessments that underpin the licence decision for the site licence application assessment.

Estimated completion date: Dec 2022

Australian Radiation Incident Register (ARIR 2.0)



Enhance engagement with radiotherapy stakeholders to increase the reporting of radiation incidents and near misses into the existing ARIR. This will include the development of a user focused digital system.

Estimated completion date: Dec 2023

Self-assessment tools for licence holders



Develop digital checklists, with industry working groups, to allow licence holders to assess their compliance against codes and standards.

Estimated completion date: Dec 2022

4

Enhance organisational innovation and capability

ARPANSA continues to invest in projects that build capability, increase agility and resilience, and focus on future needs. Over the four-year planning period, we will continue the implementation of digital technology projects identified in the 2020 review of business systems and technology platforms. The agency will continue to implement the ARPANSA Management System (AMS) and deliver a comprehensive high-quality research program to support radiation protection, nuclear safety and regulatory activities and mitigate radiation risks in the Australian context. By enhancing our organisational innovation and capability ARPANSA ensures our systems, assets, and staff effectively support and efficiently deliver on our purpose.

Performance measures

We will demonstrate our performance through the following measures:

No	Measure	2021-22 Target	2022-23	2023-24	2024-25
16	Efficient implementation of a whole of agency Information Technology Roadmap to support the modernisation of services provided.	Implement digital technology initiatives to enhance service delivery, improve customer experience and streamline internal processes.	★	★	★
	<i>Methodology: Analysis and comparison between projected and actual milestones and budget for IT roadmap program of works.</i>				
17	Maintaining and improving infrastructure to facilitate efficiency in business-as-usual activities.	Deliver Property and Facilities program of work for 2021-22.	★		
	<i>Methodology: Analysis of project progress reports in line with schedule of works delivered.</i>				

Initiatives

The initiatives to achieve the intended results for this Key Activity are:



ensure ARPANSA has sustainable operations and appropriate infrastructure



implement and improve integrated processes that enable ARPANSA to deliver high quality products and services



build the workforce of the future that promotes a sustainable workforce, learning and development, succession planning and flexibility



develop and maintain secure and stable platforms, systems, and internal frameworks to enable effective service delivery.

4

No	Measure	2021–22 Target	2022–23	2023–24	2024–25
18	Review of business models.	<p>Business sustainability reviews (including review of pricing, where applicable) will be undertaken in line with the Government’s pricing framework and cost-recovery guideline. During 2021–22, ARPANSA will review the following areas:</p> <ul style="list-style-type: none"> Australian Clinical Dosimetry Services Regulatory License Fees (recalibration of cost-recovery charges for the next cycle) Import and Export Permits. 	★		
	<i>Methodology: Measured through timely completion of the reviews and appropriate adjustments in our pricing structures.</i>				
19*	Employee engagement score in annual APS employee census.	Level of engagement >APS average annual APS census.	★	★	★
	<i>Methodology: APS Census data used as a benchmark to measure the effectiveness of employee engagement activities</i>				
20	Review the workforce plan and develop a learning and development strategy to support a workforce of highly engaged and committed staff.	Deliver the revised workforce plan and implement learning and development strategy.	★	★	
	<i>Methodology: Analysis of project milestone in line with project schedule.</i>				

* Indicates where performance will be measured against an unchanged target.

★ Applicable reporting period for which the performance measure will be assessed.

Explanation of changes since 2019–20 Corporate Plan: These performance measures have been updated to reflect the strategic priorities of overall efficiency and effectiveness in the management of government property, particularly through the focus on the coordinated system arrangements. A mix of qualitative and quantitative (output, efficiency and effectiveness) measures have been utilised.

Projects

We will also demonstrate our performance through delivery of the following projects:



ARPANSA Management System

ARPANSA wide management system framework and supporting documents and processes.

Estimated completion date: Dec 2021



Upgrade of Physical Access Control Systems

Upgrade of Physical Access Control Systems at Yallambie and Miranda sites in accordance with Protective Security Policy Framework requirements.

Estimated completion date: Apr 2022



Property and Facilities program of works

Upgraded infrastructure and overall building amenities through:

- Delivery of properties and facilities program of works for 2021–22.

Estimated completion date: Jun 2022



Platforms and systems

A whole-of-agency roadmap, schedule, investment strategy and prioritised roadmap for the future design of our digital technology platforms and systems to meet current and future business requirements including:

- Development of Regulatory Administration Database
- Implementation of Laboratory Information Management System
- Implementation of Digital Technology Plan including a Cyber Security roadmap.

Estimated completion date: Jun 2023

RISK MANAGEMENT

Effectively managing risk is inherent to the achievement of our purpose as an agency. In this ever-changing environment it is even more critical to be adaptive, responsive, and work as one-team to ensure we continue to protect the Australian public and environment. Effective risk management is an important component of ARPANSA's governance arrangements and an integral part of ARPANSA's processes, including strategic planning, business planning and all project and change management processes. We have adequate systems of risk oversight and management that align with the Commonwealth Risk Management Policy and support our compliance with section 16 of the *Public Governance, Performance and Accountability Act 2013*. During this reporting period, ARPANSA will continue to enhance our risk management system by introducing dedicated risk management software to improve the oversight of risk, bowtie analysis to better understand our leading risks, and provide tailored risk assessment training for staff.

ARPANSA's strategic risks are periodically monitored and reported to the Strategic Management Committee (SMC) and the Audit and Risk Committee (A&RC). Operational and new or emerging risks are managed through our risk framework. Branch/Office Heads have the responsibility to operationalise risk treatment plans and to monitor and report the effectiveness of controls.

The following are ARPANSA's four key strategic risks with a brief description on how we will manage them.

RISK MANAGEMENT

Business Continuity Event

Risk description

Threats (or causal pathways) to this risk include onsite emergencies, disruption or degradation of technology or infrastructure, pandemic, extreme weather event, or security or safety event. ARPANSA manages and maintains a number of business-critical digital technology systems and infrastructure, inclusive of buildings, laboratories, instrumentation, and mobile assets. The agency must ensure this environment is robust and resilient enough to sustain any disruption which may challenge our business continuity and avoid threats that could compromise our property, facilities, and digital technology systems. Consequences may include loss of productivity, reputational damage, loss of resources both financial and non-financial, inability to meet Government requirements and deliver key activities.

Prevention Strategies

ARPANSA manages disruption or degradation to technology and infrastructure through testing of business continuity and disaster recovery plans, asset management practices, security of IT networks, and integrated business and budget planning process. The asset management includes scientific equipment and mobile resources maintained for the purpose of using in a nuclear or radiological emergency. External valuation of certain assets is performed regularly. The maintenance of buildings and property is supported through whole-of-government arrangements. ARPANSA has also initiated the implementation of our digital technology roadmap to enhance the performance reliability and public accessibility of our digital technology systems with a number of key projects to be delivered over the next three years.

Reduced workforce capability or capacity

Risk description

ARPANSA has a highly skilled and technically proficient workforce, and our people are at the heart of our capability and capacity to deliver organisational objectives, now and into the future. External factors may impact on the capability and capacity, and internal processes may not support the necessary agility and innovation capability. Failure to make decisions that consider these aspects may impact our ability to attract and retain people with the necessary skills and experience, manage competing resource demands, fulfil statutory functions and government requirements, be innovative, and deliver successful business outcomes.

Prevention Strategies

ARPANSA manages risks associated with investing in our people through our workforce planning process which is incorporated into the agency's integrated business and budget planning. ARPANSA is revising our workforce plan which outlines how we can best place our people's capability, performance and productivity to enable achievement of ARPANSA's key activities. The plan sets out people management strategies that we intend to implement to build on current knowledge and prepare for future challenges. These strategies include succession planning, attraction and recruitment, leadership and learning, performance and reward, diversity and inclusion, and health and wellbeing.

RISK MANAGEMENT

Radiation exposure

Risk description

Recognising the object of the ARPANS Act, ARPANSA is acutely aware of its authority and responsibility to provide services which reduce the radiation risk to the Australian population, animals and wider ecosystems. This risk encompasses activities performed by Commonwealth entities.

Prevention strategies

ARPANSA achieves this risk reduction through, measurement, advice and calibration in the medical, environmental, ultraviolet (UV) and radiofrequency (RF) spaces, and broadly through the regulation of Commonwealth entities. Greater detail on ARPANSA's work programs to drive prevention, through mitigation of radiation risk, is itemised in each of the Key Activities sections above.

Fraud, corruption, or maladministration

Risk description

ARPANSA recognises that fraud, corruption and maladministration have the potential to cause significant financial loss and non-financial harm in the form of reputational damage. Such events also have significant impact on staff morale and engagement. The occurrence of such event will prevail in an environment where opportunities exist for abuse or malpractices due to varied reasons, including lack of internal controls, lack of appropriate systems and procedures, lack of appropriate oversight or lack of awareness by the management.

Prevention strategies

ARPANSA's strategies for managing this risk involve putting in place measures that seek to prevent the occurrence of fraud, corruption and maladministration, detect occurrences should they occur and limit the consequences of any occurrences. We do this by maintaining an internal control environment in the form of policies and procedures, appropriate delegations, close oversight by management and regular reporting on business performance. The agency also benefits from significant oversight from internal and external auditors, including our independent Audit and Risk Committee. ARPANSA believes that the most effective way to prevent the occurrence of fraud and corruption is to promote an ethical environment in which internal control mechanisms have been implemented. We use various means to promote an ethical environment including through regular tailored fraud awareness training, adherence to APS Code of Conduct and Values, general education and awareness of relevant policies and procedures.

GOVERNANCE AND ADVICE

The CEO is advised by three statutory advisory bodies established by the *Australian Radiation Protection and Nuclear Safety Act 1998*:

Radiation Health and Safety Advisory Council (Council)

The role of Council in relation to radiation protection and nuclear safety is to:

- identify emerging issues
- examine matters of major concern to the community
- consider the adoption of recommendations, policies, codes and standards
- advise and report to the CEO, at the CEO's request or as Council considers appropriate, on the above and any other matters.

Radiation Health Committee (RHC)

The role of RHC in relation to radiation protection is to:

- advise the CEO and the Council
- develop policies and to prepare draft publications for the promotion of uniform national standards
- formulate draft national policies, codes and standards for consideration by the Commonwealth, the states and the territories
- review national policies, codes and standards to ensure that they continue to substantially reflect world best practice
- consult publicly in the development and review of such policies, codes and standards.

Nuclear Safety Committee (NSC)

The role of NSC in relation to nuclear safety and the safety of controlled facilities is to:

- advise the CEO and the Council on matters related to the safety of nuclear installations and the safety of controlled facilities
- review and assess the effectiveness of standards, codes, practices and procedures
- develop detailed policies and prepare draft publications to promote uniform national standards
- report to the CEO on matters related to safety.

GOVERNANCE AND ADVICE

At the strategic level, the CEO is advised by three key committees:

Strategic Management Committee (SMC)

The SMC is strategically focused and looks forward to the medium and long-term future of the agency rather than ongoing day-to-day business. The SMC considers the threats and opportunities that may influence the strategic direction of the agency and contributes at key times throughout the year to ARPANSA's planning and performance framework.

Audit & Risk Committee

The *Public Governance, Performance and Accountability Act 2013* requires Commonwealth entities to establish an audit committee. ARPANSA's Audit and Risk Committee provides independent assurance and advice to the CEO on the agency's financial reporting, performance reporting, system of risk oversight and management and system of internal control.

Clinical Advisory Group (CAG)

The CAG provides expert clinical support and advice to ARPANSA to assist with interpreting dosimetric audit findings and its implications for patient safety in radiation therapy. The group is drawn from the relevant professional organisations. The CAG also provides an annual independent report to the Australian Health Protection Principal Committee (AHPPC), summarising the clinical efficacy of the ACDS' activities.

GOVERNANCE AND ADVICE

The relationship between the statutory advisory bodies and ARPANSA's senior governance committees is illustrated in figure 2 below.

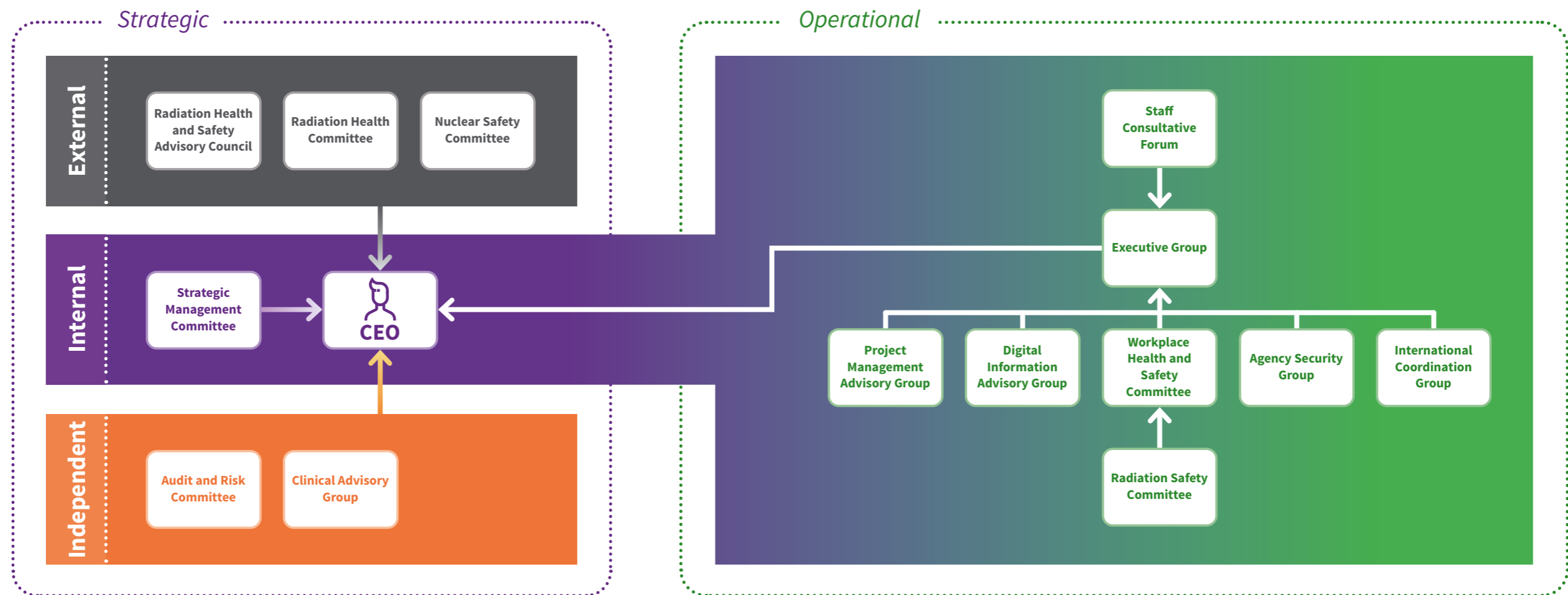


Figure 2: ARPANSA governance structure

APPENDIX 1 – SUMMARY OF CHANGES

Overall, the changes to this year's ARPANSA Corporate Plan reflect the progress the agency has made in maturing its strategic planning and performance information. ARPANSA has established four distinct and significant programme areas of work, referred to as our Key Activities, which demonstrate how the agency will achieve its purpose. Each Key Activity is supported by initiatives that will be undertaken and performance measures to determine if the agency has met its purpose. Portfolio Budget Statement measures have been included under associated Key Activities to provide greater context and correlation between agency planning documents. The ARPANSA Corporate Plan has further revised the way the agency's performance information is presented in order to foster transparency and meet PGPA Rule requirements.

The ARPANSA Corporate Plan identifies 18 initiatives, 20 performance measures and 13 significant projects for the reporting period 2021–22 to 2024–25 with:

- twelve performance measures that are unchanged or only marginally changed to improve the clarity of the performance information
- four performance measures that have been updated to reflect the evolution of the related work activities
- four performance measures that are newly created, representative of a collation of previous measures brought together to better reflect ARPANA's strategic focus
- the closure of some projects due to completion, revision of timeframes or updating measures or projects to reflect recent developments.