



Measuring what Matters

FRDC's 2020-25 Monitoring and Evaluation Framework

NOTE: This document outlines the proposed performance measures to transform thinking and enable effective thought leadership, knowledge creation, collaboration and innovation.



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INTRODUCTION

Purpose

The FRDC's Monitoring and Evaluation Framework has been developed to provide a coordinated approach for monitoring, evaluation and reporting to enable the Corporation to better meet the needs of its stakeholders, which include each sector of fishing and aquaculture, the government, and the community. This document will do so by setting out a forward-looking, results-based process for evaluating performance across all functions undertaken by the FRDC during the life of FRDC's 2020-25 Research & Development Plan (R&D Plan).

Specifically, this framework aims to drive:

- **Monitoring of performance** – of the FRDC progress against R&D Plan outcomes;
- **Demonstration of impact** – to determine the extent to which R&D Plan outcomes have been achieved, and the impact of the FRDC's investments;
- **Accountability** – to the Australian Government and FRDC stakeholders;
- **Compliance** – with requirements under key legislation and the FRDC's Statutory Funding Agreement;
- **Continual improvement** – regarding the effectiveness, efficiency and appropriateness of investments, partnerships, communication, and internal systems and processes

This framework will be reviewed annually to ensure continued currency, and alignment with the FRDC's R&D Plan.

Who is the Monitoring and Evaluation Framework for?

This document is designed to provide clarity to FRDC's diverse stakeholders on the approach for measuring progress against its strategic plan, and corporate performance. While it is the intention of this document to serve all groups as effectively as possible, we recognise that there is a hierarchy of likely users.

Traditionally, the primary users of FRDC's [Program and Evaluation Framework](#) (which preceded this document) has been the Department of Agriculture, Water and the Environment (AWE) as a means of evaluating performance against the Statutory Funding Agreement (SFA). Secondly, Monitoring and Evaluation Frameworks (MEFs) have been used by FRDC itself as a method of organisational alignment monitoring with SFA and R&D Plan. Potential other users may include a few interested stakeholders.

This framework seeks to flip the hierarchy of users. While the document will still function to fulfill our obligations under the SFA, FRDC itself, including the Board is intended as the primary audience. The framework should be easy to understand, and allow business units and the Board to leverage performance tracking to drive iterative strategic planning and actions.

While a linear format final draft will be available when completed, a digital storymapping format will ultimately be applied to make it easier and more digestible/appealing for all stakeholder audiences.

Context for monitoring and evaluating performance

The FRDC's 2020-25 R&D Plan *"Imagining the Future of fishing and aquaculture"* states that the organisation's mission is to "Act as a national thought leader, facilitating knowledge creation, collaboration and innovation to shape the future of fishing and aquaculture in Australia for the benefit of the Australian people". Fishing and Aquaculture includes commercial wild-catch, aquaculture,

recreational, Indigenous and post-harvest sectors, along with fisheries management, research, development and extension professionals, and the Australian community.

The FRDC works to achieve its mission by planning, investing in and managing research and development for fishing and aquaculture and the wider community, and ensuring that the resulting knowledge and innovation is adopted for impact.

Statutory Funding Agreement

Development of a monitoring and evaluation framework will assist in meeting obligations within the FRDC's Statutory Funding Agreement with the Department of Agriculture, Water and Environment. Specifically, that the FRDC is to act at all times in accordance with the following performance principles:

1. *Stakeholders are engaged to identify research, development and extension priorities and activities that provide benefits to portfolio industries*
2. *Ensuring that R&D (and marketing*) priorities and activities are strategic, collaborative and targeted to improve profitability, productivity, competitiveness and preparedness for future opportunities and challenges through a balanced portfolio*
3. *Collaboration is strategic and sustained across industries and sectors to address shared challenges and draw on experiences from other sectors*
4. *Governance arrangements and practices fulfill legislative requirements and align with contemporary Australian best practice for open, transparent and proper use and management of funds*
5. *Demonstrating positive outcomes and delivery of R&D (and marketing) benefits to Levy Payers and the Australian community in general, and continuous improvement in governance and administrative efficiency*

The SFA also clarifies expectations with respect to the review of performance, as follows:

FRDC must implement appropriate processes, on an ongoing basis during each Financial Year, to:

- a. *Monitor and evaluate its performance against the Performance Principles, and*
- b. *Demonstrate its performance against the Performance Principles to Levy Payers and other stakeholders (demonstrations could include updates by newsletter, meetings, website, email or annual report)*
- c. *The Commonwealth may review FRDC's performance and compliance with the Act, this Agreement, and the Guidelines at any time during the term of this Agreement.*

The Commonwealth may request FRDC from time to time (but no more often than once every three years) to obtain, at FRDC's expense, an independent review of FRDC's performance against the Performance Principles.

* The majority of the FRDC's funding is invested in R&D priorities, rather than marketing related activities.

Public Governance, Performance and Accountability (PGPA) Act

Reporting of performance evaluation is also legislated under the Public Governance, Performance and Accountability (PGPA) Act 2013, with the following compliance specifications:

Section	Title	Requirement
Section 37	Records about performance of Commonwealth entities	<ol style="list-style-type: none"> 1. The accountable authority of a Commonwealth entity must cause records to be kept that properly record and explain the entity's performance in achieving its purposes. 2. The accountable authority must ensure that the records are kept in a way that: <ol style="list-style-type: none"> a. complies with any requirements prescribed by the rules; and b. enables the preparation of the annual performance statements required by section 39. 3. The responsible Minister and the Finance Minister are entitled to full and free access to the records kept under this section. However, those Ministers' access is subject to any Commonwealth law that prohibits disclosure of particular information.
Section 38	Measuring and assessing performance of Commonwealth entities	<ol style="list-style-type: none"> 1. The accountable authority of a Commonwealth entity must measure and assess the performance of the entity in achieving its purposes. 2. The measurement and assessment must comply with any requirements prescribed by the rules.

Strategic Agenda

The R&D Plan acknowledges a vision shared by all sectors of fishing and aquaculture of what fishing & aquaculture might look like by 2030, identifies outcomes required to pursue that vision, and enabling strategies to achieve them. These are summarised in Figure 1 below:



Fig. 1 The FRDC's strategic agenda, as outlined in 2020-25 R&D Plan

FRDC'S MONITORING AND EVALUATION FRAMEWORK EXPLAINED

Monitoring and Evaluation

A monitoring and evaluation framework (MEF) enables assessment of progress against the R&D Plan (Figure 2). The MEF acts as a guide for information gathering and progress assessment for delivery of the R&D Plan outcomes through investment in outputs, to deliver impact.

The FRDC has adopted (with some expansion; see following section) the Commonwealth input/output/outcome/impact reporting framework. The Department of Finance has determined that the FRDC's organizational outcome is '*Increased economic, social and environmental benefits for Australian fishing and aquaculture, and the wider community, by investing in knowledge, innovation, and marketing*'. The FRDC's performance is measured against its ability to deliver this outcome.

It is important to note that time is an important component of the monitoring and evaluation cycles, particularly as it relates to impacts. While the length of time for an investment to deliver outputs and outcomes is related to the duration of planned activities, there is typically a lag between activity completion and impact realisation. This highlights the importance of continuous monitoring and evaluation throughout the process, to ensure that investment inputs and outputs (which FRDC can directly influence) are adjusted according to updated impact information as it becomes available.

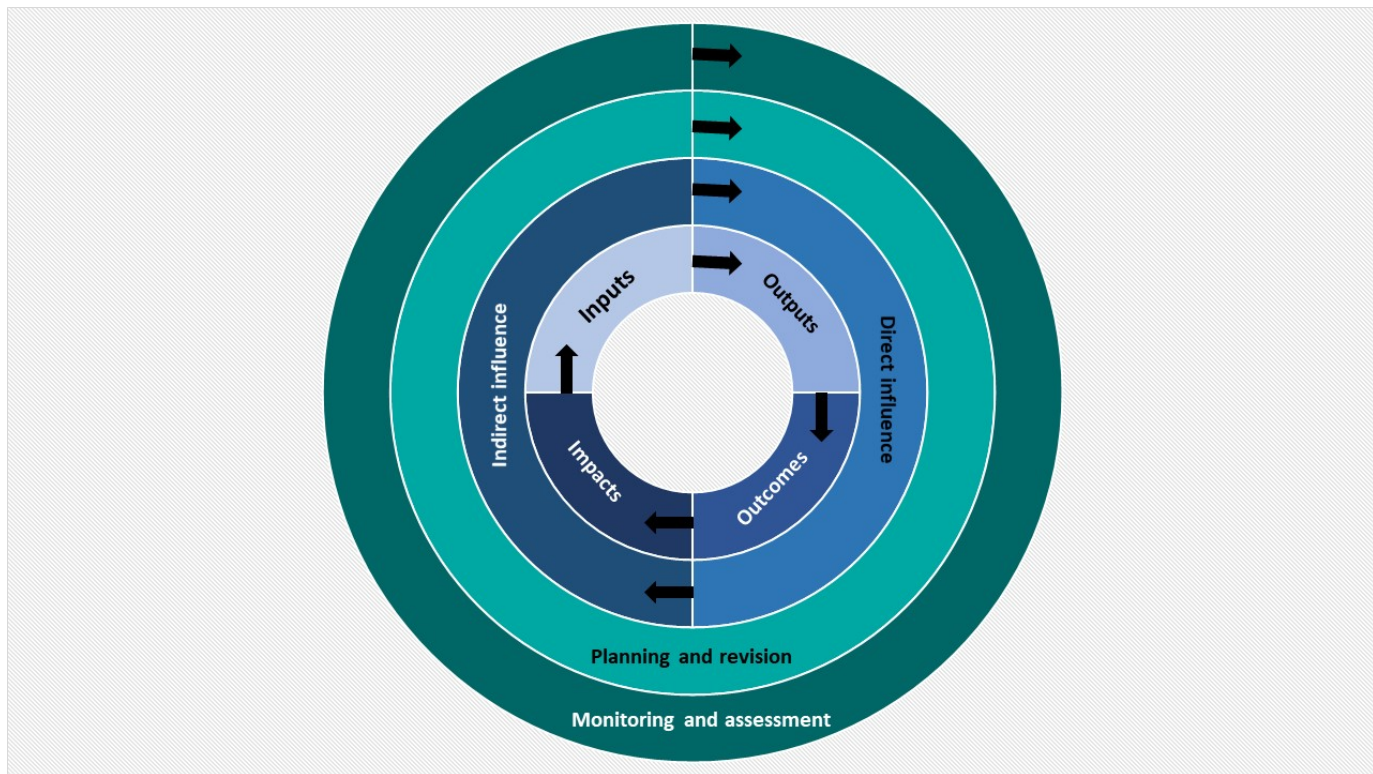


Fig. 2. Monitoring and evaluation framework

Management and Evaluation framework: seven elements of performance

While the Commonwealth input/output/outcome/impact reporting framework provides a strong foundation for monitoring performance of strategic investments, the FRDC recognizes that there is also an opportunity to expand this framework to facilitate continuous improvement more broadly across its operations. In this expansion, seven elements of performance are identified:

- Governance
- Balance
- Connectivity
- Collaboration
- Resilience and potential
- Value
- Impact

This expanded input to impact process is also cyclical, allowing for iterative improvements as monitoring data flow in over time (Figure 3).

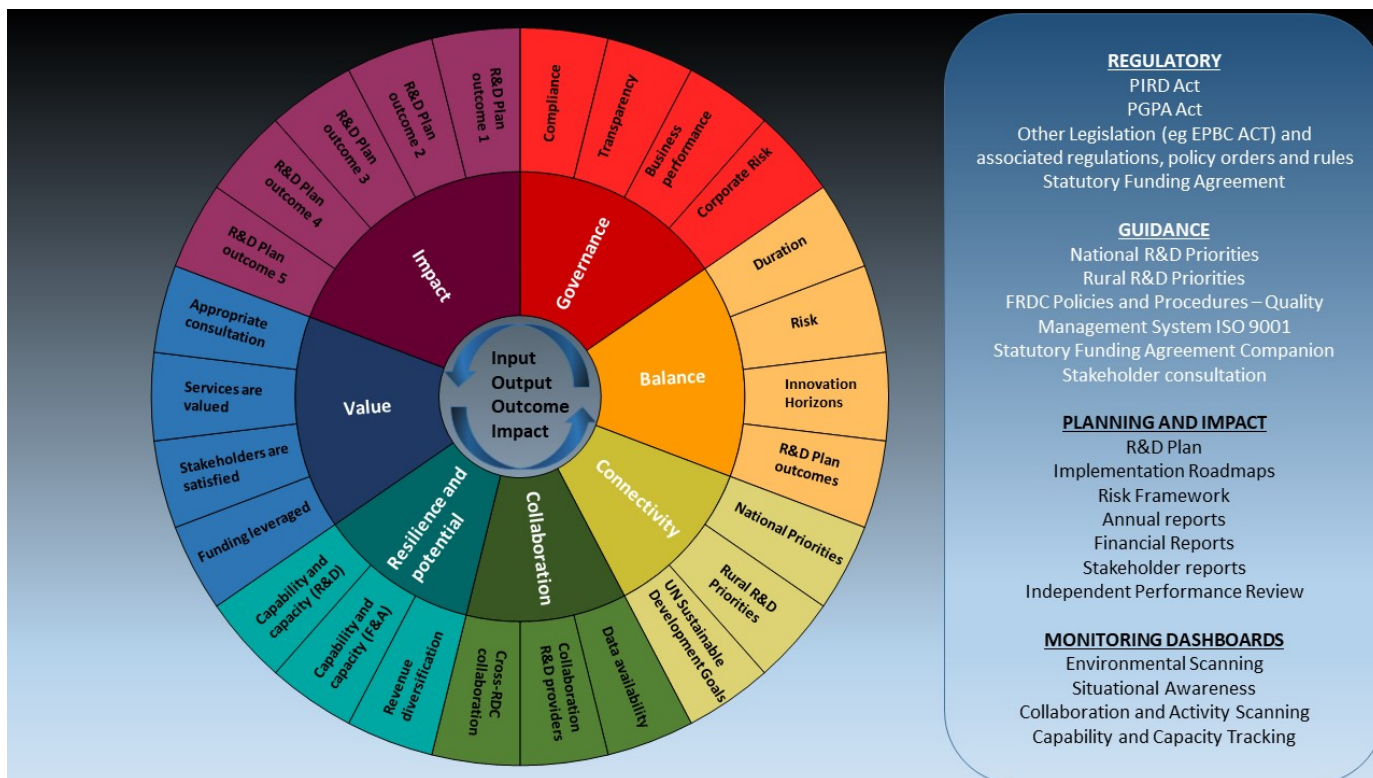


Fig. 3 Monitoring and evaluation framework; inner circle summarising the monitoring and evaluation cycle, darker shades describing seven elements of performance, light-outer-circle colours circle showing facets of each element of performance. Key information, intelligence and planning elements are listed on the right. White indicates regulatory and guidance inputs to FRDC. Black indicates information, intelligence and planning outputs from FRDC.

Cycles of planning occur at five-year intervals for the setting of strategic intent through the R&D Plan, and annually to set 12-month investment strategy to guide practical delivery of the current R&D Plan (Figure 4). Bridging the two key documents are five roadmaps that are developed and maintained through broad stakeholder consultation. These roadmaps focus on one of the R&D Plan's five outcomes, setting out the challenges/opportunities that will be addressed, the order they will be undertaken, and how each will enable the outcomes to be achieved. Progress can be tracked as challenges/opportunities are addressed through prioritised activities. These activities form the basis for Annual Operating Plans (AOP), and inform strategic calls for R&D priorities.

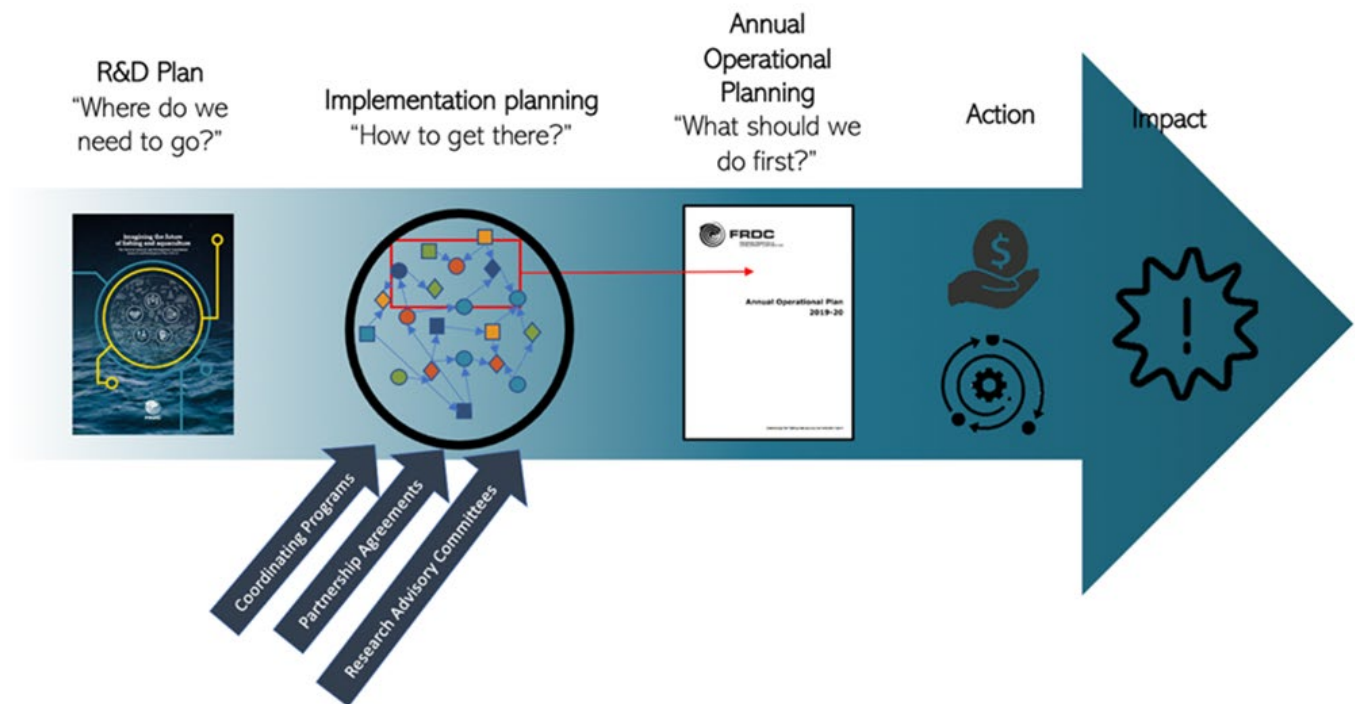


Fig. 4 Planning cycle flow

In addition to implementation roadmap tracking, a series of monitoring dashboards will be developed to assist in providing contextual information to guide iterative management in consultation with stakeholders throughout the year. Monitoring dashboards and databases will include:

- Environmental scanning dashboard – tracking key national and international influences on the industry including key environmental, social, and economic metrics
- Situational awareness – monitoring changes in the immediate industry environment which could impact short-term priorities
- Collaboration and activity scanning – monitoring across RDCs and other organisations to identify where opportunities exist to collaborate for improved impacts and avoid activity overlap for increased efficiencies in investment
- Capability and capacity tracking – leveraging on and building understanding of capabilities and capacity within the industry and among solution providers to promote long-term viability and improve quality of investment activities

Governance

Governance provides foundation for the FRDC's MEF. It fulfills FRDC's statutory obligations and accountability to regulatory and guidance inputs, particularly to ensure the proper use and management of funds.

The FRDC is responsible for providing reporting against dimensions of planning, performance, risk management, and to demonstrate compliance with best practice in financial, other processes and record keeping. The Board's Finance Audit and Risk Management Committee (FARM) has oversight and monitors the quality and integrity of the FRDC's accounting, auditing, financial reporting, and risk and compliance systems. Demonstration of full compliance is denoted by a 'unmodified' audit report.

Table 1 Four facets that make up the FRDC's approach towards monitoring of governance performance

Facet	Target	Key Performance Indicator (KPI)	Measurement tool	Frequency
Compliance	FRDC is fully compliant with administrative and record keeping responsibilities	Unmodified result found	Independent audit	Annually
Transparency	FRDC's record keeping is complete, and allows all investments and transactions to be clearly tracked and understood	Unmodified result found	Independent audit	Annually
Business performance	FRDC has managed finance such that it will be able to pay all debts as and when they fall due	Financial reporting	Financial Statements	Monthly
Corporate risk	FRDC has appropriate oversight of risk, and risk management planning in place, and utilises risk management accordingly	FRDC systems of risk management, internal control and compliance shows FRDC to be effective	FARM committee oversight of systems of risk management, internal control and compliance	As required by FARM Committee
	FRDC has in place appropriate probity measures, and has complied with those measures	Management of probity issues is 'effective', probity arrangements are 'appropriate', and FRDC has 'complied' with applicable probity requirements (assessment wording from ANAO)	Internal Audits ANAO Audits Compliance check list Project Financial Acquittals Research provider audits	As required by ANAO
	FRDC has stable maturity in risk management (noting current assessment score is highest achievable)	Overall risk maturity assessed as 'Optimal'	Comcare Risk Management Benchmarking Survey	Biannual

The FRDC is committed to continuous improvement in the above-listed facets of corporate governance. Although not previously listed as a component of the MEF, these KPIs and associated measurement tools have continuously been used by FRDC and DAWE to evaluate corporate governance performance. The FRDC has traditionally demonstrated excellent adherence to governance standards supported by internal and external management resources and systems. While it is expected that this should remain the case, should future monitoring identify instances where the listed KPIs are not being met, the response will be to immediately undertake planning to ensure improved performance, and associated actions to be reported in the Annual Report.

Balance

In accordance with FRDC's Statutory Funding Agreement, 'Balanced portfolio' is defined as *'an RD&E investment portfolio incorporating an appropriate blend of issues of national importance based on government and Levy Payer priorities that seeks to balance short, medium and long term, high and low risk, and strategic and adaptive research needs including consideration for regional variations and needs.'*

In past, balance was pursued by imposing pre-assigned percentages of funding allocation across risk profile, basic and applied research, and project duration, and then. The limitation of this approach is its failure to acknowledge the complex and complicated variables driving the R&D ecosystem. The implication is that not every dollar is equal in its ability to deliver impact, and that potential impacts of investments can be influenced by changes in the business ecosystem over time.

Dimensions of balance associated with project duration and risk are still proposed to be tracked under the new monitoring and evaluation framework, in addition to Investment Horizons and R&D Plan Outcomes. To attain an appropriate balance without requiring a prescriptive proportional funding scheme, the FRDC has consulted and collaborated with stakeholders across sectors and jurisdictions to develop a series of R&D Plan implementation roadmaps. There are five roadmaps in total, each corresponding to one of the five R&D Plan outcomes. These roadmaps detail the challenges and opportunities to be addressed to realise the Plan outcomes by the end of 2025. Therefore, a balanced portfolio is one which invests against the needs of FRDC's diverse stakeholders, as articulated within the five roadmaps over the five-year period.

The following elements of balance will be measured on an ongoing basis to ensure spread of investment guided by R&D Plan outcome roadmaps:

R&D Plan outcomes	<ol style="list-style-type: none"> 1. Growth for enduring Prosperity 2. Best practice for production systems 3. A culture that is inclusive and forward thinking 4. Fair and secure access to aquatic resources 5. Community trust, respect and value
Innovation Horizons	<ul style="list-style-type: none"> • Horizon 1 • Horizon 2 • Horizon 3
Risk	<ul style="list-style-type: none"> • Low risk • Medium Risk • High risk
Duration	<ul style="list-style-type: none"> • Short term • Medium term • Long term

The Three Horizons model of innovation

provides a framework for thinking about the business of research and innovation, understanding the current approach and searching for new opportunities to innovate. The purpose of the model is to sustain existing momentum and growth whilst looking for new opportunities, including disruptive ideas, to promote future growth.

The model described innovation occurring on three time horizons:

Horizon 1 ideas provide continuous innovation to a company's existing business model and core capabilities in the short-term. In FRDC's situation this is characterised by doing a good job of the same thing.

Horizon 2 ideas extend a company's existing business model and core capabilities to new customers, markets, or targets. In FRDC's situation this is characterised by applying existing experience and know how to new opportunities, which might relate to new or different fisheries, stakeholders, products for example.

Horizon 3 is the creation of new capabilities and new business to take advantage of or respond to disruptive opportunities or to counter disruption. In FRDC's situation this is characterised by looking for opportunities in areas that are new, for example either looking for alternative applications for FRDC's knowledge and experience outside of fisheries or applying new external knowledge and experiences from outside to fisheries

With respect to Innovation, the FRDC recognises that investment in Horizon 3 activities is very rare.

Facet	Target	Key Performance Indicator (KPI)	Measurement tool	Frequency
R&D Plan outcomes	Investment in alignment with R&D Plan outcome roadmaps	On track for 100% of priority activities identified in roadmaps are invested in by 2025	Roadmap activity tracking	With calls for applications
Innovation Horizons	Investment in alignment with R&D Plan outcome roadmaps	On track for 100% of priority activities identified in roadmaps are invested in by 2025	Roadmap activity tracking	With calls for applications
Risk	Investment in alignment with R&D Plan outcome roadmaps	On track for 100% of priority activities identified in	Roadmap activity tracking	With calls for applications

		roadmaps are invested in by 2025		
Duration	Investment in alignment with R&D Plan outcome roadmaps	On track for 100% of priority activities identified in roadmaps are invested in by 2025	Roadmap activity tracking	With calls for applications

The primary function of balance is to ensure optimal delivery of funding to fulfill the R&D Plan. Continuous tracking of investment, the operating environment, capacity of solution providers to deliver R&D, and the outcomes and impacts (as they emerge) of activities will allow adjustments to investment prioritisation planning to occur throughout the year in consultation with stakeholders. The five roadmaps have already undergone a process to identify a rough timeline for delivery which spans the life of the 2020-25 R&D Plan, and further critical path analysis will identify levels of priority within each. Iterative management will provide opportunity to maximise impact for delivery of the R&D Plan through identified needs (should they arise) for adjustments to prioritised investments. Delivery against the implementation roadmaps, contextual information and any associated changes will be detailed in the Annual Report.

Connectivity

This element seeks to enable understanding and enhancement of linkages between FRDC's activities and key Australian and international shared commitments and common interests. Two of these, the Australian Government's Science and Research Priorities, and the Rural Research, Development and Extension Priorities are key planning inputs provided by DAWE.







To demonstrate connectivity, the FRDC will continuously track activities which address the following:









- The Australian Government's National Science and research priorities
- Rural Research, Development and Extension Priorities
- United Nations Sustainable Development Goals (SDGs)

Periodically, FRDC will also evaluate alignment with other initiatives such as the DAWE Corporate Plan 2020-21 (Appendix 1), [Agriculture Innovation Agenda](#), National Marine Science Challenges and Council of Rural RDCs on an at-need basis.

Australian Government's National Science and Research Priorities	
Food	<ul style="list-style-type: none"> • Knowledge of global and domestic demand, supply chains and the identification of country specific preferences for food Australia can produce • Knowledge of the social, economic and other barriers to achieving access to healthy Australian foods • Enhanced food production through • novel technologies, such as sensors, robotics, real-time data systems and traceability, all integrated into the full production chain <ul style="list-style-type: none"> i. better management and use of waste and water; increased food quality, safety, stability and shelf life ii. protection of food sources through enhanced biosecurity iii. genetic composition of food sources appropriate for present and emerging Australian conditions

Soil and water	<ul style="list-style-type: none"> • new and integrated national observing systems, technologies and modelling frameworks across the soil-atmosphere-water-marine systems • better understanding of sustainable limits for productive use of soil, freshwater, river flows and water rights, terrestrial and marine ecosystems • minimising damage to, and developing solutions for restoration and remediation of, soil, fresh and potable water, urban catchments and marine systems
Transport	<ul style="list-style-type: none"> • low emission fuels and technologies for domestic and global markets • improved logistics, modelling and regulation: urban design, autonomous vehicles, electrified transport, sensor technologies, real time data and spatial analysis • effective pricing, operation, and resource allocation
Environmental change	<ul style="list-style-type: none"> • improved accuracy and precision in predicting and measuring the impact of environmental changes caused by climate and local elements • resilient urban, rural and regional infrastructure • options for responding and adapting to the impacts of environmental change on biological systems, urban and rural communities and industry
Rural Research, Development and Extension Priorities	
Advanced technology	to enhance innovation of products, processes and practices across the food and fibre supply chains through technologies such as robotics, digitisation, big data, genetics and precision agriculture
Biosecurity	to improve understanding and evidence of pest and disease pathways to help direct biosecurity resources to their best uses, minimising biosecurity threats and improving market access for primary producers
Soil, water and managing natural resources	to manage soil health, improve water use efficiency and certainty of supply, sustainably develop new production areas and improve resilience to climate events and impacts
Adoption of R&D	focusing on flexible delivery of extension services that meet primary producers' needs and recognising the growing role of private service delivery

United Nations Sustainable Development Goals					
	End hunger, achieve food security and nutrition and promote sustainable agriculture		Ensure healthy lives and promote wellbeing for all at all ages		Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
	Achieve gender equality and empower all women and girls		Ensure access to affordable, reliable, sustainable and modern energy for all		Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation		Reduce inequality within and among countries		Make cities and human settlements inclusive, safe, resilient and sustainable
	Ensure sustainable consumption and production patterns		Take urgent action to combat climate change and its impacts		Conserve and sustainably use the oceans, seas and marine resources for sustainable development
	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss		Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels		Strengthen the means of implementation and revitalise the global partnership for sustainable development

Facet	Target	Key Performance Indicator (KPI)	Measurement tool	Frequency
Australian Government's National Science and Research Priorities	All FRDC research activities align with National Science and Research Priorities	All FRDC research activities have demonstrated alignment with at least one National Science and Research Priority	Application stage alignment tracking	Continuous
Rural Research, Development and Extension Priorities	All FRDC research and development activities align with Rural Research, Development and Extension Priorities	All FRDC research and development activities have demonstrated alignment with at least one Rural Research, Development and Extension Priority	Application stage alignment tracking	Continuous
UN Sustainable Development Goals	All FRDC research and development activities align with	All FRDC research and development activities have	Application stage alignment tracking	Continuous

	UN Sustainable Development Goals	demonstrated alignment with at least one UN Sustainable Development Goal		
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Alignment with National Science Priorities, Rural R&D Priorities, and UNSDGs will be used as part of the assessment of progress against roadmaps and associated priority setting. Identification of gaps in alignment will be used to drive adjustment in background information to calls for applications and associated investment choices, and where necessary, re-evaluation of critical R&D pathways.

Collaboration

This element directly relates to how well FRDC is able to leverage collaboration across RDCs and among solution providers* to:

1. Increase cost effectiveness
2. Reduce overlap/redundancy
3. Increase overall impact.

Facet	Target	KPI	How measured	Frequency
Cross-RDC collaboration	Collaboration with other RDCs is maintained or increases	Proportion of funding invested in joint or cross RDC projects is maintained or increases over time	Tracking proportion of investment in joint/cross RDC projects	Twice yearly
Promoting collaboration among solution providers	Collaboration among solution providers is maintained or increases	Collaboration is maintained or increases among solution providers over time	Case studies of successful programmatic management	Twice yearly
Output availability	Project output availability from FRDC projects increases	All relevant project products (including final reports, data and metadata) that are appropriate for publication are made open access	Project product tracking	Continuously

*Solution providers include researchers, entrepreneurs, innovators, educators, communicators

The results of KPI monitoring for collaboration will be used to assist in evaluation of funding applications, where those demonstrating improved leveraging of investment will be preferred.

Resilience and potential

Resilience here refers to the ability of the FRDC and the F&A community to endure over time in a rapidly changing operating landscape. Potential refers to the ability to sustain workforces to meet R&D and business needs. Measurement under this element seeks to ensure no loss or growth in the quality or quantity of service delivered by the FRDC to the F&A community. Three facets directly

influence the continued resilience and potential to meet this goal; capability among solution providers, and among the F&A community, and revenue diversification.

Facet	Target	KPI	How measured	Frequency
Revenue diversification	Increased new (non-traditional) funding attracted each year	Annual % change in new (non-traditional) funding attracted each year	Financial report	Annually
Capability maintenance across solution provider community	100% of priorities receive successful applications	Proportion of priorities that receive successful applications is increasing (up to 100%)	Review of applications (re: proportion of identified priorities addressed)	Continually
	Capability across the solution provider community is maintained over time	Number of qualified new applicants seeking FRDC investment is 30%	Identification of first-time applicants	Continually
Capability and capacity maintenance/growth across fishing and aquaculture	Capability and capacity needs across fishing and aquaculture are met	Number of participants completing capability & capacity uplift initiatives is commensurate with identified needs (in accordance with R&D Plan implementation roadmaps and associated priorities)	Participation tracking	Twice yearly

The monitoring of KPIs against the Resilience and Potential element of performance will be used as a component of R&D Plan implementation roadmap assessment. Should instance occur of any of the above-listed KPIs not being met, critical roadmap components and priorities may be adjusted commensurate to the level of agreed need among FRDC and its stakeholders.

Value

The FRDC exists to build partnerships, invest in the generation and sharing of knowledge for the benefit of the Australian community, so that Australia's marine and freshwater resources can be managed and used for fishing and aquaculture sustainably. Value is therefore demonstrated when:

1. Stakeholders have been appropriately consulted to determine and prioritise their needs and aspirations
2. The services that FRDC provides align with those needs, and are valued by stakeholders

Facet	Target	KPI	How measured	Frequency
Satisfaction with the FRDC's services	Stakeholders report that they value FRDC services highly	Proportion of stakeholders that are satisfied with FRDC services remains at 70% or above	Stakeholder survey	Annually
Stakeholder satisfaction	Stakeholders report that they value FRDC highly	Proportion of stakeholders that are satisfied with FRDC remains at 70% or above	Stakeholder survey	Annually
	Stakeholders demonstrate that they value FRDC highly	Matchable contribution achieved in all jurisdictions	Financial report	Annually
Funding is leveraged	contributions to the FRDC's investment activities increase over time	Total contributions as a proportion of overall investment	Financial report	Annually
Appropriateness of consultation	Stakeholders report high satisfaction with FRDC consultation activities	Proportion of stakeholders that are satisfied with FRDC consultation activities remains at 70% or above	Short stakeholder event surveys	Every consultative event

Performance against Value KPIs will be used to drive how the FRDC aligns services and consultative activities to meet end-user needs and expectations. Should instances occur where any of the above-listed KPIs are not being met, the FRDC will seek to evaluate the cause, with appropriate adjustments in stakeholder engagement and communication activities to follow as actions.

Impact

Impact in this context directly relates to the fourth phase of the Input/Output/Outcome/Impact framework, and results from delivery against the R&D Plan strategic intent, through investment against roadmaps in priority activities, and careful management to ensure timely delivery on budget, and activities to promote adoption.

Facet	Dimension	Target	KPI	How measured	Frequency
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Outcome 1: Growth for enduring prosperity	Environment	Australians report increasingly valuing the environment	Increased environmental valuation	Non-market valuation of component of benefit-cost analysis	Twice during R&D Plan life
		Sustainability Framework clarifies and supports sustainability goals	Sustainability Framework is developed and implemented	Sustainability Framework in place, and summary of achievements	
	Social	Sector wellbeing is maintained or increased	Sector wellbeing (perceived)* is maintained or grows over time	Stakeholder survey	Twice during R&D Plan life
	Economic	Return on investment is maintained or increased	The market valuation component of Benefit/Cost Analysis shows average return on investment is maintained or improves over time	Benefit-cost analysis	Twice during R&D Plan life
Outcome 2: Best practice and production systems	Awareness/Adoption	Increased awareness/adoption of good practices is maintained or increases	Sector awareness/adoption of good practices is maintained or grows over time	Stakeholder survey	Twice during R&D Plan life
Outcome 3: A culture that is inclusive and forward thinking	Inclusiveness	Cross-sectoral collaboration increases	More instances of cross-sectoral collaboration over time	Narrative-based survey tool/ Stakeholder survey	Annually
		Increased culture of diversity and inclusiveness	Culture of diversity and inclusiveness grows over time	Narrative-based survey tool/ Stakeholder survey	
	Forward thinking	Development of new and better ways of thinking and working in the fishing and	Fishing and aquaculture community are increasingly equipped with new and better	Narrative-based survey tool/ Stakeholder survey	Annually

		aquaculture community	ways of thinking and working		
Outcome 4: Fair and secure access	Integratedness	Increased integrated management of aquatic resources	More instances of integrated aquatic resource management over time	Stakeholder survey tool (or project report)	Twice during R&D Plan life
	Transparent decision-making	Increased adoption of multi-sector harvest strategies	Adoption of multi-sector harvest strategies grows over time	Stakeholder survey tool (or project report)	Twice during R&D Plan life
	Participativeness	Increased adoption of co-management	Adoption of co-management (inclusive) grows over time	Stakeholder survey tool (or project report)	Twice during R&D Plan life
Outcome 5: Community trust, respect and value	Community trust	Increased community trust, respect and value of fishing and aquaculture	Community trust, respect and value of fishing and aquaculture grows over time	National survey	Twice during R&D Plan life

Impacts associated with the R&D Plan outcomes (including, but not exclusively comprising economic, environmental and social) will be identified and described.

* Sector wellbeing incorporates financial and mental health and resilience elements

Key Monitoring and Evaluation Tools

Cost-benefit analyses

Economic impacts are usually the impacts in cost-benefit analyses that can be determined with most confidence. Economic impacts are usually derived from outcomes that lead to cost-reducing or demand-enhancing changes. Impacts of the project on unit production costs or margin for enterprises involved in an industry are valued and then aggregated by the level of industry adoption already manifest and/or expected. Implementation costs involved in adoption need to be valued and included.

The paramount set of guidelines to be used in the analyses will be the guidelines produced by the Council or Rural Research and Development Corporations (CRRDC). The cost-benefit analyses and non-market analyses will focus on valuing economic impacts, with attempts made to value environmental and social impacts where they exist and where reasonable assumptions can be made.

Defining the 'without R&D' scenario (counterfactual) to assist with defining and quantifying impacts is often one of the more difficult assumptions to make in investment analyses. The 'without' scenario usually lies somewhere between the status quo or business as usual case and the more extreme positions that the research would have happened anyway but at a later time; or the impact would have been delivered anyway through another mechanism. The important issue is that the definition of the 'without' scenario is made as consistently as possible between project analyses.

When carrying out impact assessments driven by RD&E, the impact valued may have been dependent on investment other than that of the project being assessed. This is particularly relevant when assessments are carried out at the project level. Assumptions for attribution factors will therefore require careful consideration. Confidence ratings in the investment criteria produced will be provided.

Non-market valuation

An issue often arises as to whether some impacts are economic or environmental/social, thus exposing a difficulty with the triple bottom line approach. Where the impacts can be separated, this can be managed satisfactorily; however, categorisation issues remain where there are interactions between environmental or social and productivity and other cost saving improvements.

Attempts at non-market valuations for some impacts, particularly environmental and social impacts, may be included in analyses. Agtrans has included non-market valuations in CBAs carried out in the past. This has usually been undertaken through benefit transfer methods that utilise willingness to pay (WTP) studies from the literature. Agtrans experience with using benefit transfer has resulted in the identification of issues of concern with the technique, and care is taken to ensure that willingness to pay estimates are not transferred inappropriately. However, emerging methodologies in non-market valuation will also be considered. Regardless of methodological choice, assumptions used when valuing environmental and social impacts need to be clearly defined.

Social survey tools

Socially derived impacts such as awareness and adoption of best practice methods and development of an inclusive and innovative culture require careful planning in order to avoid the introduction of various biases, and to determine forms for long-term trend analyses. Traditional survey forms and interview methods can be applied where the issue of concern is well understood, and relevant aspects of the external operating landscape are stable. However, these methods can be limited where answers to more complex enquiries are desired, particularly where shifting dynamics can transform issues and behaviours rapidly.

FRDC will also seek to employ emerging survey techniques which can be used to combine narrative reporting with quantitative dashboard monitoring to provide visibility to short-term social shifts. These shifts would occur in response to rapid 'interventions' which could include in the form of short R&D or engagement activities. In this way, it is possible to gauge where characteristics or types of interventions are eliciting desired impacts, and therefore better understand how to focus future investment to strengthen impacts.

EVALUATION OF PERFORMANCE AND REPORTING

Assessment of impact serves the following purposes:

1. Provide key inputs into FRDC's assessment of its program performance regarding impact against its current RD&E plan (2015-2020) and inform future directions of investment;
2. Provide information that can be used in FRDC annual reporting to the Australian Government;
3. Contribute to populating the Evaluation Framework for FRDC reporting to DAWR in 2019 under the current SFA agreement.

4. Provide FRDC's input to an overall performance assessment of the RDCs being compiled by the CRRDC.

FRDC will undertake economic assessment of all project clusters that are funded to deliver the R&D Plan 2020-25. FRDC participates in the CRRDC Evaluation Working Group. FRDC will ensure the [methodology](#) used for impact assessment follows the Impact Assessment Guidelines (and Impact Assessment Companion) established by the CRRDC.

The current target for the impact assessments is:

- *Investment in FRDC programs demonstrates positive return*

In undertaking these economic impact assessments via cost-benefit analyses, the consultant will be expected to follow the guidelines provided by the CRRDC so that the Council can report on a whole of Corporations basis to the Australian Government.

Annual reporting and impact assessment

FRDC is required to report the results of its impact assessments in its annual reporting to the Australian Government and other stakeholders. Hence, a performance report (including impact assessment based on completed projects) is required by 30 June each year until 2026. The first project assessments will refer to projects completed in the year ending 30 June 2021 and this first draft assessment report is required by 30 June 2022.

In addition to traditional impact reporting, the FRDC will also report against the above-listed additional elements of performance to provide transparency and underline its commitment to continuous improvement. In 2021-22 the FRDC will also be establishing a digital performance reporting dashboard to deliver active tracking of key indicators relevant to delivery of the R&D Plan 2020-25.

The annual impact assessment reports will enable reporting against the current FRDC R&D Plan and evaluation framework associated with SFA, commencing with projects completed in the years ending 30th June 2020 and extending to those completed in the years ending June 2023, 2024, 2025 and 2026. The annual assessment reports are likely to be used for populating part of the Evaluation Framework required in the 2026 SFA reporting.

CRRDC reporting

Economic analysis is required to provide impact assessments from RDC investments across the 15 RDCs. Each RDC is contributing to this effort within a standard set of guidelines and a standard reporting framework. Valuation of these impacts, along with identification of investment expenditure, is required to demonstrate the RDCs contribution to Australian primary industry as well as any environmental and social benefits to Australia.

The unit of investment to be evaluated will be the individual project. In any one year, the number of completed FRDC projects varies. However, as the number of projects completed in any year averages over 100, it would not be possible to carry out impact assessments for all completed projects in any one year. Therefore, a random stratified sampling process is to be used to select the projects for which individual impact assessments will be undertaken. Randomness is important to satisfy the CRRDC requirements and stratification is important to ensure that all principal categories of projects are included, particularly in relation to the core FRDC investment programs/PIRD Act objectives.

Evaluation approach

The approach will follow general evaluation guidelines that are now well entrenched within the Australian primary industry research sector including RDCs, Cooperative Research Centres (CRCs) and some Universities. The impact assessments will use cost-benefit analysis (CBA) and non-market assessments, as well as national and stakeholder surveys and other narrative assessment. The assessments will entail both qualitative and quantitative approaches and will follow the existing CRRDC guidelines and any updates of these guidelines and procedures that may occur during the 2021-2026 period.

The general approach will be to identify and describe objectives and activities, outputs, and outcomes from each selected project investment. Impacts associated with the R&D Plan outcomes (including, but not exclusively comprising economic, environmental and social) will be identified and described as stated above (see Impacts).

Appendix 1: DAWE Corporate Plan 2020-21 Targets

Agriculture – Assist industry to grow to a \$100 billion agricultural sector by 2030			
Increase, improve and maintain markets	Encourage and reduce risks to agricultural productivity	Forecasting and strategic intelligence	The efficient collection and distribution of levies to fund rural research and development

Environment and Heritage – Support stewardship and sustainable management to enhance Australia’s environment and our unique heritage					
Ecosystem diversity, extent and function are maintained or improved	Species diversity, range and abundance are maintained or improved	Heritage is recognised and protected	Development is ecologically sustainable and impacts to the environment and human health are managed	Produce scientific research on the environment and resource development	Provide national leadership to effectively manage Australia’s waste

Biosecurity – Manage biosecurity risks to Australian agriculture, the environment and our way of life	
The national biosecurity system meets the agreed national goals and objectives of the Intergovernmental Agreement on Biosecurity	Regulation, partnerships and service delivery manage biosecurity risk

Water Resources – Support the sustainable management and productive use of Australia’s water resources	
Support sustainable use and maintenance of high-quality water resources	Water quality and flows, and ecosystem health are maintained or improved

Antarctic – Advance Australia’s strategic, scientific and environmental interests in the Antarctic and the Southern Ocean
Strengthen Australia’s leadership in Antarctica and the Southern Ocean, by conducting world-leading science, promoting environmental best practice, and developing economic, educational and collaborative opportunities