

Independent performance review: final report

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DISCLAIMER

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EXECUTIVE SUMMARY

This report presents the findings of an independent performance review of the Fisheries Research & Development Corporation (FRDC) for the period from November 2018 to March 2024. The purpose of the review was, essentially, to assess how well FRDC has met its obligations to levy payers and other stakeholders, as set out in the Performance Principles of FRDC's Statutory Funding Agreement 2020-30 (SFA) with government. A specific focus was FRDC's evolution since the last performance review in 2018. The specific terms of reference are set out in Table i below.

The review involved an extensive review of documents (listed in Appendix 1) and consultation through face-to-face or video interviews with 53 individuals from among FRDC's stakeholders: Board and management of FRDC, representative organisations and other sector bodies, individual sector participants, Research Advisory Committees, the Department of Agriculture, Fisheries and Forestry, the Council of Rural R&D Corporations, Agricultural Innovation Australia, and service providers to FRDC (research agencies, consultants, and others). All stakeholders were provided the opportunity to make a submission to the review via a dedicated website.

FRDC is performing at a very high level in a complex and challenging environment. It is a standout among research and development corporations (RDCs) in its drive to find better ways to deliver innovation to its stakeholders. It has made several major improvements to its business operations since the last performance review in 2018, notably the establishment of an Extension Officer Network (EON), the creation of a separate Strategy & Innovation (S&I) division, and the building of a dynamic business intelligence system to underpin risk management and corporate planning. The process to develop the current five-year R&D plan (2020-25) was very thorough and FRDC has a very structured approach to stakeholder consultation and engagement.

Almost all of the recommendations of the previous performance review (2018) have either been implemented, or considered, with a subsequent deliberate decision not to implement. The main gap is the lack of reporting of the distribution of benefits between regions or sectors in the impact assessments conducted for FRDC.

FRDC and its staff are highly respected in the Australian fishing and aquaculture sector, in government, and in research circles. The workplace culture of FRDC is generally very positive, with staff describing it as supportive, curious, and innovative. Work arrangements are highly flexible.

FRDC collaborates extensively with other RDCs, governments, other management and research providers, and across fishing and aquaculture sectors. Collaboration with other Research & Development Corporations (RDCs) in particular is exemplary. For example, FRDC has been an active contributor to Agricultural Innovation Australia.

Fishing (Indigenous, recreational and commercial) and aquaculture face large, long-term challenges, not the least due to the sectors' utilisation of a common good in the form of public waters. FRDC has advanced capability to meet such future challenges, opportunities (and risks) through its business intelligence system and its S&I division. One such challenge specific to the commercial sectors is the growth of aquaculture, both in absolute terms and in relative size to wild-catch. FRDC acknowledges this challenge. It will need to develop systems to address it in terms of appropriate funding arrangements and R&D investment priorities, balancing the need for specific aquaculture segment R&D with broader industry-good R&D.

There is good evidence of the delivery of benefits to levy payers, government, and other investors from FRDC investments. There is some feeling that FRDC places too great a focus on environmental and social issues at

the expense of economic advancement, but most stakeholders close to FRDC recognise this perception to be unfounded – as does this review. Compliance and risk are very well managed.

There is no evidence for FRDC having failed to fulfil, or being at risk of not fulfilling, all obligations imposed by its SFA, its governing legislation or government policies.

There are areas for improvement, mainly concerning the reporting of corporate performance, specifically focussing more on reporting against organisational outcomes and impacts as distinct from outputs. This can be best achieved by incorporating a clear line of sight in performance criteria listed in the RD&E plan and then reflected in annual operating plans and reported in annual reports.

A summary of the review findings against the terms of reference (TOR), and against the Performance Principles, are provided in Table i and Table ii.

Table i: Summary of FRDC performance against the review terms of reference

TERMS OF REFERENCE	SUMMARY OF FINDINGS
<p>1. Assess performance of the FRDC in meeting its obligations under the [Primary Industries Research & Development] PIRD Act and the 2020-2030 SFA with the Commonwealth, with reference to:</p> <ul style="list-style-type: none"> the five Performance Principles and associated Key Performance Indicators, as described in the SFA and the Guidelines; the Best Practice Guide to Stakeholder Consultation; and the RDC Knowledge Transfer and Commercialisation Guide. 	<ul style="list-style-type: none"> There is no evidence of FRDC having failed to fulfil, or being at risk of not fulfilling, all of the obligations imposed by its SFA, governing legislation or government policies. Refer to Table ii below for findings against the five Performance Principles. FRDC reports against the KPIs set out in the Guidelines for Statutory Funding Agreements in its annual reports. FRDC has taken account of the guiding principles of the Best Practice Guide to Stakeholder Consultation. Stakeholder engagement and consultation is a strength of FRDC. FRDC has taken account of the guiding principles of the RDC Knowledge Transfer and Commercialisation Guide.
<p>2. Assess FRDC's development and implementation of its R&D Plan 2020-25, including the delivery of benefits to FRDC's stakeholders and community in general, and the degree to which FRDC investments have met the needs of stakeholders, including synthesis and analysis of feedback from FRDC stakeholders received through a range of current consultative processes, including:</p> <ul style="list-style-type: none"> FRDC's 2023 Stakeholder Survey; consultation with FRDC's Representative Organisations by the Department of Agriculture, Fisheries and Forestry [DAFF] as part of FRDC's annual performance evaluation; FRDC's stakeholder planning workshop; and 	<ul style="list-style-type: none"> In addition to reviewing the outputs from the consultation mechanisms described, the review team conducted in-depth interviews with 53 FRDC stakeholders. The development of the R&D Plan 2020-25 was a highly consultative process and involved scenario planning, systems mapping and a thorough situation analysis (see section 5.3). Stakeholder feedback indicates that FRDC is considered to be delivering value, that is, that investments are meeting the needs of stakeholders. There was some feeling from interviews that FRDC places too great a focus on environmental and social issues at the expense of economic advancement,

TERMS OF REFERENCE	SUMMARY OF FINDINGS
<ul style="list-style-type: none"> ⊕ consultation to inform a recent review of the performance of FRDC's Board. 	<p>but most stakeholders close to FRDC recognise this perception to be unfounded – as does this review (see section 7).</p>
<p>3. Assess the efficiency and effectiveness with which FRDC has carried out its [Research & development] R&D Plan 2020-25, including its:</p> <ul style="list-style-type: none"> ⊕ liaison with stakeholders; ⊕ cross-RDC collaboration; ⊕ corporate governance; ⊕ industry strategy and delivery, including the opportunity for stakeholders to influence the investment of funds and the Return on Investment achieved; and ⊕ the effectiveness of FRDC's investments. 	<ul style="list-style-type: none"> ⊕ FRDC meets the standards of the Best Practice Guide to Stakeholder Consultation. It has a comprehensive engagement strategy, supported by annual activity plans, detailing a wide range of engagement activities and mechanisms. FRDC's focus on extension has increased substantially with the creation of the EON and this has been very well received (see section 6.6). ⊕ Cross-RDC collaboration is exemplary. FRDC has been an active contributor to Agricultural Innovation Australia. Examples of collaborative projects involving FRDC are referred to in sections 5.5 and 7.6. ⊕ Corporate governance is strong and there is close attention to risk and compliance (see section 4.5). ⊕ See TOR 2. Research, development & extension (RD&E) planning, procurement, and management processes are robust and there are multiple opportunities for stakeholders to inform the investment of funds (see section 6.3). ⊕ Independent impact analyses have demonstrated the delivery of positive benefits by FRDC, showing benefit-cost ratios between 2.94:1 and 7.51:1 (see section 8.5.1).
<p>4. Assess how FRDC conducts its business, review the efficiency and effectiveness of FRDC's current processes, and assess if current processes are fit for purpose, encapsulating best practice for stakeholder engagement, and approaching business with an 'excellence in customer service' lens.</p>	<ul style="list-style-type: none"> ⊕ FRDC's business processes are well documented and appear both effective and efficient, given the constraints of FRDC's compliance obligations and the complexity of its operating environment. The creation of the business intelligence platform is a strong example of next-generation RDC performance.

TERMS OF REFERENCE	SUMMARY OF FINDINGS
	⊕ Highly positive feedback from stakeholders interviewed for this review indicates that customer service is considered to be very good. 'Puts clients at the centre' is a design principle of FRDC's consultative structures (see section 7).
5. Assess FRDC's implementation and the effectiveness of actions taken to address feedback/recommendations from its previous Independent Performance Review (2018-19), including actions listed in the Performance Review Response and Implementation Plan and a comparison with the previous Review's findings to identify what has/has not changed.	⊕ FRDC has made a concerted effort to implement the findings of the previous performance review. Examples include a greatly strengthened approach to extension, streamlined handling of RD&E approvals by the Board and advances in risk management. Recommendation 9 regarding the analysis of distribution of benefits between sub-sectors was stalled during Covid and has not been resumed (see section 9).

Table ii: Summary of FRDC performance against the Performance Principles

PERFORMANCE PRINCIPLE	SUMMARY OF FINDINGS
To engage stakeholders to identify RD&E priorities and activities that provide benefits to the industry	⊕ FRDC meets the standards of the Best Practice Guide to Stakeholder Consultation. It uses a range of engagement mechanisms to identify and refine RD&E priorities throughout the planning cycle. These include an annual stakeholder planning workshop; engagement with industry representative groups; Research Advisory Committees to articulate jurisdictional priorities; Industry Partnership Agreements to ensure industry priorities are delivered; coordinating program reference groups; and the EON. Stakeholders reported a high degree of satisfaction with the direction of FRDC's investments (see section 7).

PERFORMANCE PRINCIPLE	SUMMARY OF FINDINGS
To ensure RD&E (and marketing) priorities and activities are strategic, collaborative, and targeted to improve profitability, productivity, competitiveness, and preparedness for future opportunities through a balanced portfolio	<ul style="list-style-type: none"> ⊕ Strategic planning is thorough and processes to evaluate RD&E applications for strategic fit are rigorous. No <i>ex ante</i> benefit-cost analyses are conducted, and this is the subject of a recommendation from this review (see section 8). ⊕ Collaboration is a feature of FRDC's business (see TOR 3). IPAs allow targeted industry investment to improve profitability, productivity and competitiveness. ⊕ FRDC balances its portfolio across subsectors, jurisdictions, and priorities and reports on the balance between these variables. New approaches to funding large, often cross-sectoral projects are in development and may facilitate greater investment in the high risk / high reward part of the portfolio (see section 6). ⊕ FRDC has advanced capability to meet future opportunities (and risks) through its business intelligence system and S&I division (see section 4).
To undertake strategic and sustained cross-industry and cross-sectoral collaboration that addresses shared challenges and draws on experience from other sectors	<ul style="list-style-type: none"> ⊕ Collaboration is a feature of FRDC's business (see TOR 3). ⊕ FRDC's S&I division has been created specifically to tackle larger, longer-term challenges requiring novel approaches to R&D management and funding (see section 4).
For governance arrangements and practices to fulfil legislative requirements and align with contemporary Australian best practice for open, transparent, and proper use and management of funds	<ul style="list-style-type: none"> ⊕ Corporate governance largely aligns with contemporary Australian best practice except for the board appointment process, which is outside FRDC control (see section 4.3). ⊕ External audits confirm proper use of funds. Management of funds is very open and transparent. Reporting of investment allocation by sector, subsector, jurisdiction, priority and other variables is a feature (see section 4.5).
To demonstrate positive outcomes and delivery of RD&E (and marketing) benefits to levy payers and the Australian community	<ul style="list-style-type: none"> ⊕ Independent impact analyses have demonstrated the delivery of positive benefits by FRDC, showing benefit-cost ratios between 2.94:1 and 7.51:1. Environmental and social benefits have

PERFORMANCE PRINCIPLE	SUMMARY OF FINDINGS
in general, and show continuous improvement in governance and administrative efficiency	<p>been described but, in many cases, have not been quantified and this is the subject of a recommendation from this review (see sections 8 and 9).</p> <p>⊕ There is good qualitative evidence of a continuous improvement approach to governance and administrative efficiency, for example in the proactive response to the recommendations of the previous performance review (see section 9).</p>

Ten recommendations are made as a result of the review. These are shown in Table iii, and each is rated either:

- ⊕ Critical: should be implemented as a matter of urgency in order for FRDC to meet its legal and regulatory obligations.
- ⊕ Important: actions that are expected to deliver significant benefits to the organisation and industry.
- ⊕ Better practice: expected to deliver incremental performance improvements.

No recommendations are rated as 'critical', while four are rated 'important' and six rated as 'better practice'.

Table iii: Summary of review recommendations

RECOMMENDATION		SECTION	RATING
1	FRDC should consider and clarify the interface between its Strategy & Innovation and Research & Development Investment divisions and communicate their respective roles internally and externally.	4.6	Important
2	The next version of the R&D plan should include some organisational key performance indicators and these should cascade through the annual operational plans and annual reports.	5.3	Important
3	FRDC should clearly define and communicate, internally and externally, the scope of Extension Officer Network activities to ensure extension officers focus on agreed FRDC transformation areas.	6.6	Important
4	Progress against the Barnett review of the Indigenous Reference Group needs to be articulated and, where appropriate, any recommendations implemented by FRDC.	7.2.4	Better practice
5	FRDC should consider the development of a segmentation strategy (particularly within aquaculture) that allows more customisation of delivery of information and R&D outcomes depending on the aspirations, capacity, and capability of individual companies or organisations.	7.7	Important
6	FRDC should consider using <i>ex-ante</i> benefit-cost evaluations for some components to optimise allocation of investments across the RD&E portfolio.	8.2	Better practice
7	FRDC should encourage Industry Partnership Agreements to invest in impact assessment on a regular basis to inform their future investments.	8.3	Better practice

RECOMMENDATION		SECTION	RATING
8	FRDC could consider changing to conducting impact assessments of projects using a cluster approach where projects from one of the five R&D strategic outcomes (or other clusters as appropriate) are randomly selected for assessment each year and on a rolling basis.	8.4	Better practice
9	FRDC should ask its impact assessment providers to provide more detailed commentary on the likely distribution of benefits from projects between sectors and supply chain stages, notably aquaculture, wild-catch, recreational fishing, Indigenous, wholesale, processing, export, and retail.	8.4	Better practice
10	FRDC should report the aggregate results from its impact assessments to stakeholders using clear, simple language in its annual report (notably the benefit-cost ratio result in the key performance indicator table), in presentations to stakeholders, in communications to stakeholders and in a single, easy to find tab on the FRDC website. This should include case studies where appropriate.	8.6	Better practice

ACRONYMS AND ABBREVIATIONS

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
AIA	Agricultural Innovation Australia
AGVP	Average gross value of production
AOP	Annual operational plan
APL	Australian Pork Limited
BCA	Benefit-cost analysis
BCR	Benefit-cost ratio
CRC	Cooperative Research Centre
CRDC	Cotton Research & Development Corporation
CRRDC	Council of Rural Research and Development Corporations
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
EON	Extension Officer Network
FAC	Finance and Audit Committee
FARM	Finance, Audit and Risk Management (Committee)
FRDC	Fisheries Research and Development Corporation
FTE	Full-time equivalent
GATE	Global Ag-tech Ecosystem
GM	General Manager
GST	Goods and Services Tax
GVP	Gross value of production
ICT	Information and communications technology
IP	Intellectual property
IPA	Industry Partnership Agreement
IRG	Indigenous Reference Group
IRR	Internal rate of return
KPI	Key performance indicator

M&E	Monitoring and evaluation
MD	Managing Director
MLA	Meat & Livestock Australia
MIRR	Modified internal rate of return
M&E	Monitoring and evaluation
NED	Non-executive director
NPV	Net present value
NRFS	National Social and Economic Survey of Recreational Fishers
PCC	People and Culture Committee
PGPA Act	<i>Public Governance, Performance and Accountability Act 2013</i>
PIRD Act	<i>Primary Industries Research and Development Act 1989</i>
PVB	Present value of benefits
PVC	Present value of costs
R&D (RD&E)	Research & development (research, development & extension)
RAC	Regional Advisory Committee
RDC	Research & Development Corporation
RDI	Research & Development Investment (division of FRDC)
RRFP	Rural Research for Profit
S&I	Strategy & Innovation (division of FRDC)
SDG	Sustainable Development Goal (of the United Nations)
SFA	Statutory Funding Agreement 2020-2030
SIA	Seafood Industry Australia
TOC	Theory of Change
TOR	Terms of reference
WTP	Willingness-to-pay

1. INTRODUCTION

1.1 PURPOSE OF THE REVIEW

Under its Statutory Funding Agreement 2020-2030 (SFA) with the Commonwealth Government (clause 9.6), the Fisheries Research and Development Corporation (FRDC) may be required to commission a periodic independent review of its performance.

The terms of reference for the 2024 review, as specified by FRDC, were to:

1. *Assess performance of the FRDC in meeting its obligations under the [Primary Industries Research & Development] PIRD Act and the 2020-2030 SFA with the Commonwealth, with reference to:*
 - ⊕ *the five Performance Principles [see below] and associated Key Performance Indicators, as described in the SFA and the Guidelines;*
 - ⊕ *the Best Practice Guide to Stakeholder Consultation; and*
 - ⊕ *the [Research & Development Corporation] RDC knowledge transfer and commercialisation guide.*
2. *Assess FRDC's development and implementation of its [Research & Development] R&D Plan 2020-25, including the delivery of benefits to FRDC's stakeholders and community in general, and the degree to which FRDC investments have met the needs of stakeholders, including synthesis and analysis of feedback from FRDC stakeholders received through a range of current consultative processes, including:*
 - ⊕ *FRDC's 2023 Stakeholder Survey;*
 - ⊕ *consultation with FRDC's Representative Organisations by the Department of Agriculture, Fisheries and Forestry [DAFF] as part of FRDC's annual performance evaluation;*
 - ⊕ *FRDC's stakeholder planning workshop; and*
 - ⊕ *consultation to inform a recent review of the performance of FRDC's Board.*

(The external provider retains ability to undertake targeted stakeholder engagement to validate key insights and/or address any knowledge gaps they identify within existing inputs, as they deem necessary.)
3. *Assess the efficiency and effectiveness with which FRDC has carried out its R&D Plan 2020-25, including its:*
 - ⊕ *liaison with stakeholders;*
 - ⊕ *cross-RDC collaboration;*
 - ⊕ *corporate governance;*
 - ⊕ *industry strategy and delivery, including the opportunity for stakeholders to influence the investment of funds and the Return on Investment achieved; and*
 - ⊕ *the effectiveness of FRDC's investments.*
4. *Assess how FRDC conducts its business, review the efficiency and effectiveness of FRDC's current processes, and assess if current processes are fit for purpose, encapsulating best practice for stakeholder engagement, and approaching business with an 'excellence in customer service' lens.*

5. *Assess FRDC's implementation and the effectiveness of actions taken to address feedback/recommendations from its previous Independent Performance Review (2018-19), including actions listed in the Performance Review Response and Implementation Plan and a comparison with the previous Review's findings to identify what has/has not changed.*

An important element of the review was to assess the performance of FRDC in meeting its obligations under the Performance Principles described in clause 9.2 of the SFA. The Performance Principles are:

- a. *to engage stakeholders to identify RD&E [research, development, and extension] priorities and activities that provide benefits to the industry;*
- b. *to ensure RD&E (and marketing) priorities and activities are strategic, collaborative, and targeted to improve profitability, productivity, competitiveness, and preparedness for future opportunities through a balanced portfolio;*
- c. *to undertake strategic and sustained cross-industry and cross-sectoral collaboration that addresses shared challenges and draws on experience from other sectors;*
- d. *for governance arrangements and practices to fulfil legislative requirements and align with contemporary Australian best practice for open, transparent, and proper use and management of funds; and*
- e. *to demonstrate positive outcomes and delivery of RD&E (and marketing) benefits to levy payers and the Australian community in general, and show continuous improvement in governance and administrative efficiency.*

The review considers the period from the completion of the previous performance review of FRDC, in November 2018, to 31 March 2024.

1.2 REVIEW METHODOLOGY

The review was conducted as follows. Note that the desktop review, consultation, and reporting stages were overlapping.

1. Inception meeting: an inception meeting between the consultants and the Managing Director (MD), the departing General Manager (GM) Strategy & Innovation (S&I), and the Acting GM S&I was held by videoconference shortly after confirmation of appointment. The meeting confirmed the scope of the review, FRDC input requirements (including access to documentation, personnel, stakeholders to be interviewed), output and reporting requirements and finalisation of timeframes.
2. Establishment of communication channels: a dedicated page for the review was created on the Forest Hill Consulting website (<https://www.foresthillconsulting.com.au/frdc-review/>). This page gave the background to the review and provided a link to the terms of reference. The site also provided an email address by which any stakeholders could provide a submission to the review or request an interview. The purpose of the site was to provide a communication channel with stakeholders that was clearly independent of FRDC.

The review was publicised by FRDC. Two requests for interview were received via the designated email address.

3. Desktop review: a large number of relevant documents were made available to the consultants and were progressively reviewed. A list of the documents reviewed is provided in Appendix 1.
4. Consultation: a list of interviewees for the review was drawn up in consultation with FRDC. The list included individuals from among the FRDC executive team, other FRDC management, the FRDC Board, Research Advisory Committees (RACs), FRDC's industry representative organisations and other industry associations, individual sector participants, other industry stakeholders, the Department of Agriculture, Fisheries and Forestry (DAFF), the Council of Rural Research and Development Corporations (CRRDC), Agricultural Innovation Australia (AIA) and research and other service providers to FRDC. FRDC was asked to provide a long list from which a sample was drawn by the consultants, to provide a cross-section by geography, enterprise size and types. Some of those interviewed had been interviewed in the previous review to facilitate a longitudinal assessment of FRDC's performance over the review period.

FRDC staff and directors were mostly interviewed face-to-face. The majority of the other interviews were conducted by videoconference or telephone. A semi-structured questionnaire was used as the basis for discussions. Interviewees were assured that their comments would be treated in confidence and, if reported, would be presented in a way that did not allow the source to be identified.

A total of 53 individuals were interviewed, comprising:

- ⊞ FRDC management and staff: 13
- ⊞ FRDC directors: 9
- ⊞ External stakeholders: 31.

Names of the individuals interviewed have not been reported in order to protect confidentiality.

5. Presentation of interim findings: the interim findings from the review were presented to the executive and then to the board via videoconference in order to test the findings for accuracy and completeness.
6. Report preparation: the draft report was submitted to FRDC and DAFF. Feedback on the draft was considered by the review team, and changes made where required to correct factual errors and produce this final report.

2. OVERVIEW OF FRDC

2.1 LEGAL FRAMEWORK

FRDC is a statutory rural research and development corporation established under the *Primary Industries Research & Development Act 1989* (PIRD Act) on 2 July 1991. The objects of the PIRD Act are listed in section 3 of the Act, and these form the foundation of FRDC's activities:

(a) make provision for the funding and administration of research and development relating to primary industries with a view to:

(i) increasing the economic, environmental and social benefits to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries; and

(ii) achieving the sustainable use and sustainable management of natural resources; and

(iii) making more effective use of the resources and skills of the community in general and the scientific community in particular; and

(iv) supporting the development of scientific and technical capacity; and

(v) developing the adoptive capacity of primary producers; and

(vi) improving accountability for expenditure on research and development activities in relation to primary industries; and

(b) make provision for the funding and administration of marketing relating to products of primary industries.¹

FRDC is a corporate Commonwealth entity in the Agriculture, Fisheries and Forestry portfolio. As such, it must comply with its various finance and administration provisions of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), as well as associated instruments such as various Rules and General Policy Orders.

FRDC is responsible to the Minister for Agriculture, Fisheries and Forestry (the Minister). Under the PGPA Act, the Minister for Finance may also notify the FRDC Board of relevant government policies.

Since 2013, the PIRD Act has provided that the Minister may enter into formal funding agreements with statutory RDCs. The second such agreement with FRDC (the SFA) was executed in April 2020. The SFA supports the compliance framework of the PIRD and PGPA Acts and introduces some additional obligations. Among these are the requirement for FRDC to act in accordance with five defined Performance Principles and a provision to allow the Commonwealth to request a periodic independent performance review of the organisation (see section 1.1).

¹ Note that FRDC does not undertake any marketing activities on behalf of its sectors

The levy on farmed prawns is governed by the *Primary Industries (Excise) Levies Act 1999*, the *Primary Industries (Customs) Charges Act 1999* and the *Primary Industries Levies and Charges Collection Act 1991*. The Australian Fisheries Management Authority (AFMA) collects funds from Commonwealth fisheries through the *Fishing Levy Act 1991*. Various state and territory acts also govern the collection of fishing and aquaculture sector funds that are voluntarily contributed to FRDC by the jurisdictions (see section 2.3).

2.2 SCOPE OF ACTIVITIES

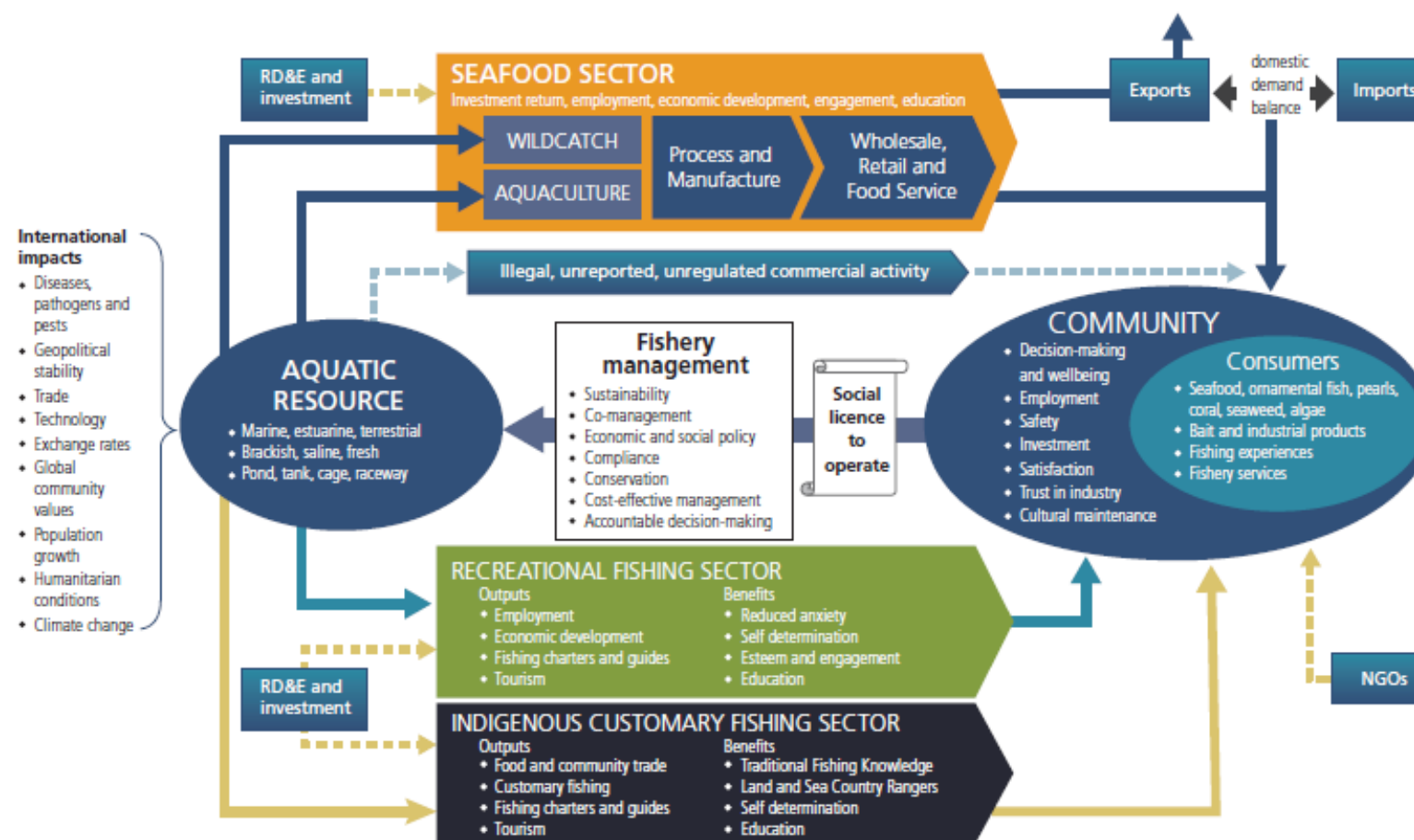
In some of its planning documents, FRDC defines five sectors that make up fishing and aquaculture:

- ⊕ Commercial wild catch;
- ⊕ Aquaculture;
- ⊕ Recreational;
- ⊕ Indigenous; and
- ⊕ Post-harvest.

For most purposes, though, FRDC refers only to the first four of these.

Figure 1 shows the relationship between these sectors. It is reproduced from the document 'Shaping FRDC's 2020-25 R&D Plan', which also includes a thorough situational analysis of the sectors.

Striking a suitable balance of investment between the five sectors is a constant challenge for FRDC. All have legitimate claims as beneficiaries of FRDC's investments; whilst commercial wild catch and aquaculture enterprises are the only sectors to make financial contributions to FRDC, the 'public good' and matching government funding received by FRDC (see section 2.3) requires the organisation to consider a broader suite of social, environmental, and economic benefits when it makes investment decisions.

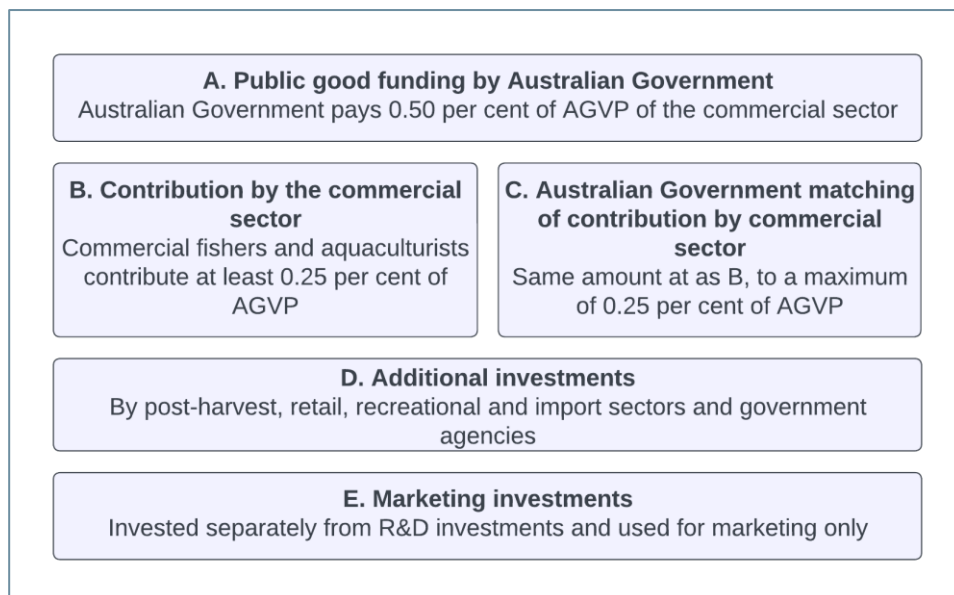


Source: FRDC, Shaping FRDC's 2020-25 R&D Plan, p. 4

Figure 1: Visual representation of the fishing and aquaculture landscape in 2019

2.3 FUNDING

FRDC has five primary revenue streams. These are summarised in Figure 2 and discussed in greater detail below.



Source: Adapted from FRDC Annual Report 2022-23, p.144

AGVP = average gross value of production, calculated over preceding three years

Figure 2: Summary of FRDC funding streams

A. The Commonwealth Government's public good funding is 'made on the grounds that the Australian Government exercises a stewardship role in relation to fisheries resources on behalf of the Australian community'² including the social value of fishing and aquaculture research in relation to recreational and Indigenous use.

B. The Commonwealth and each state and territory collect contributions from commercial fishers and the aquaculture industry under their respective jurisdictional legislation. These contributions are made 'on the basis that R&D will be targeted to [those sectors'] needs and will deliver economic and social benefits'.²

The mechanisms by which these contributions are collected vary between jurisdictions.

Section 33B of the PIRD Act requires that within five years of receiving a payment from a state or territory, either directly or via the Commonwealth, FRDC must spend an equal amount on R&D activities of relevance to that state or territory. The PIRD Act (section 30B) also makes provision for industries to pay a separate levy direct to the Commonwealth for investment by FRDC. There is only one such industry in

² FRDC Annual Report 2022-23

this category: farmed prawns. Section 33C makes a similar provision to 33B in requiring that money received from a separately levied fishery must be spent for purposes related to that fishery.

- C. The Commonwealth matches the jurisdictional or industry contributions described in (B) *‘on the basis that the beneficiaries of research should pay approximately in proportion to the benefits received, but the government should contribute to spill over benefits to the wider community’*.³
- D. Additional investments are those funds received from R&D providers, government and other parties for specific projects nominated as priorities.
- E. Marketing investments are funds collected through statutory levies or voluntary contributions. Marketing investments are not eligible for Commonwealth matching (C). FRDC does currently not receive any funds for marketing activities.

FRDC’s funding streams are undoubtedly the most complex of any RDC, especially given the collection and remittance of levies via state/territory and Commonwealth agencies. Allocation of investment by FRDC to ensure all jurisdictions and contributing industries receive their ‘fair share’ must be managed carefully. It is important to note that there is no strict obligation on the states or territories to remit the research contributions they collect to FRDC, and there have been instances in the past where these funds have been withheld due to budgets constraints or other reasons.

All but one of the jurisdictions contributed an amount exceeding 100 per cent of the maximum matchable amount in 2022/23 (overall, the ratio was 120 per cent – Table 1). This occurs because, for example, individual entities within a jurisdiction make additional project-specific contributions. The fact that total contributions exceed the maximum matchable amount is a positive reflection on the perceived value of investing in FRDC projects.

Table 1: Industry contributions to FRDC 2022/23, in absolute terms and as a percentage of maximum matchable amount

JURISDICTION	MAX. MATCHABLE CONTRIBUTION ¹	ACTUAL CONTRIBUTION ²	% OF MATCHABLE	ADDITIONAL CASH CONTRIBUTION	TOTAL CONTRIBUTIONS AS % OF MATCHABLE
	\$,000	\$,000	%	\$,000	%
Commonwealth	1,470	1,296	88	212	103
New South Wales³	455	434	95	112	120
Northern Territory	282	256	91	14	96
Queensland	491	550	112	313	176

³ FRDC Annual Report 2022-23

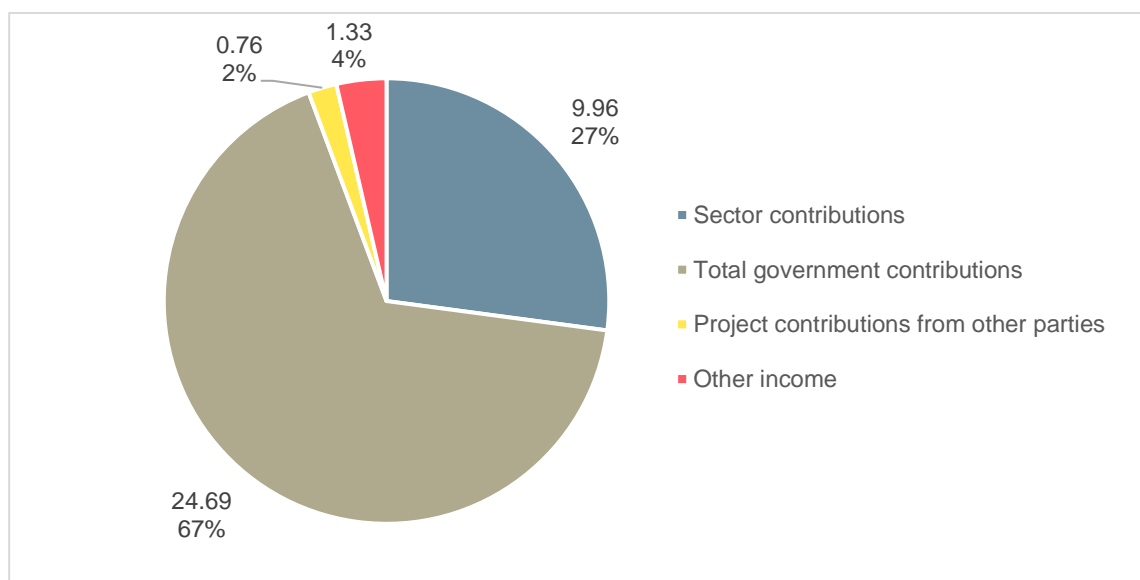
JURISDICTION	MAX. MATCHABLE CONTRIBUTION ¹	ACTUAL CONTRIBUTION ²	% OF MATCHABLE	ADDITIONAL CASH CONTRIBUTION	TOTAL CONTRIBUTIONS AS % OF MATCHABLE
	\$,000	\$,000	%	\$,000	%
South Australia	977	877	90	159	106
Tasmania	3,297	3,098	94	543	110
Victoria	263	179	68	200	144
Western Australia	1,055	1,284	122	440	163
TOTAL	8,290	7,974	96	1,992	120
Australian farmed prawns ⁴	448	383	85	-	

Source: Adapted from FRDC Annual Report 2022-23, p. x

Notes:

1. Maximum matchable contribution is the maximum amount that the Australian Government will match industry contributions
2. Timing issues may affect these figures
3. Includes the Australian Capital Territory
4. Australian farmed prawns are also included in the jurisdictional totals above

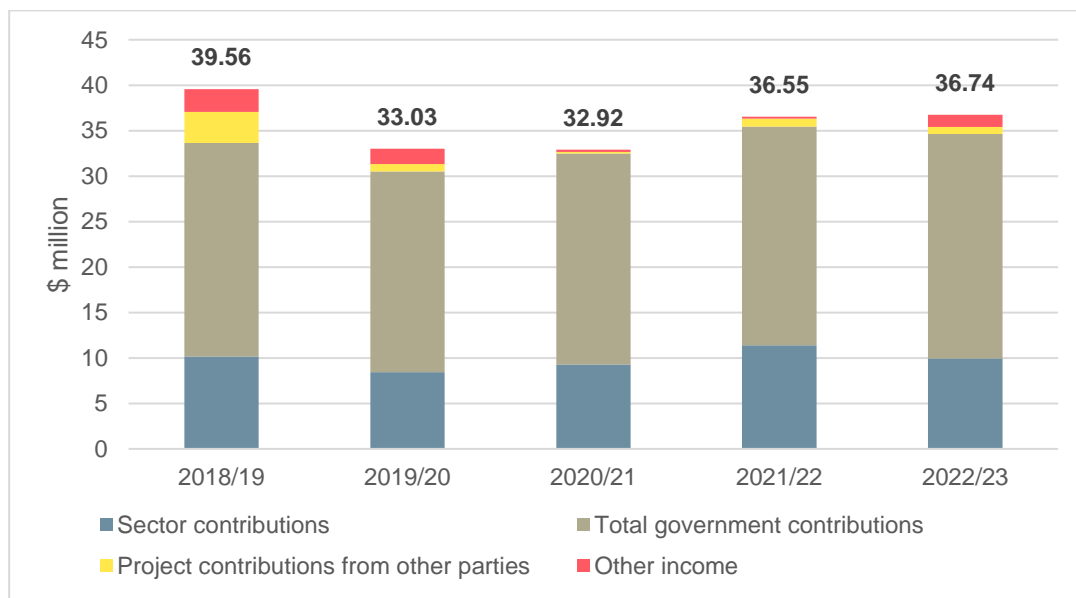
The sources of FRDC's income for 2022/23 by source are shown in Figure 3.



Source: FRDC Annual Report 2022-23

Figure 3: FRDC income by source 2022/23 (\$m)

FRDC's total income has fluctuated between around \$33 million and \$39 million over the period of this review (Figure 4). The effects of Covid can be seen during 2019/20 and 2021/22. Despite Covid, average income over the five years since 2018/19 averaged \$35.8 million compared with \$32.4 million over the preceding five years.



Source: FRDC Annual Report 2022-23, p. viii

Figure 4: FRDC revenue by year over the review period

From an expenditure point of view, over \$33 million was invested in R&D in 2022/23, comprising 134 new projects responding to Indigenous, commercial, recreational fishing and aquaculture priorities. The breakdown of expenditure across the five R&D outcomes over the last three years is shown in Table 2.

Table 2: Summary of FRDC expenditure over the last three years

	2020/21	2021/22	2022/23
Total expenditure (\$m)	33.53	35.65	38.96
Total of research and development (R&D) projects	28.24	30.71	33.00
Outcome 1: Growth for enduring prosperity	12.73	13.53	11.48
Outcome 2: Best practices and production systems	7.98	8.81	10.04

	2020/21	2021/22	2022/23
Outcome 3: A culture that is inclusive and forward thinking	1.41	1.95	3.48
Outcome 4: Fair and secure access to aquatic resources	3.00	2.63	3.60
Outcome 5: Community trust, respect and value	3.12	3.79	4.40
Corporate costs	4.66	5.13	5.97

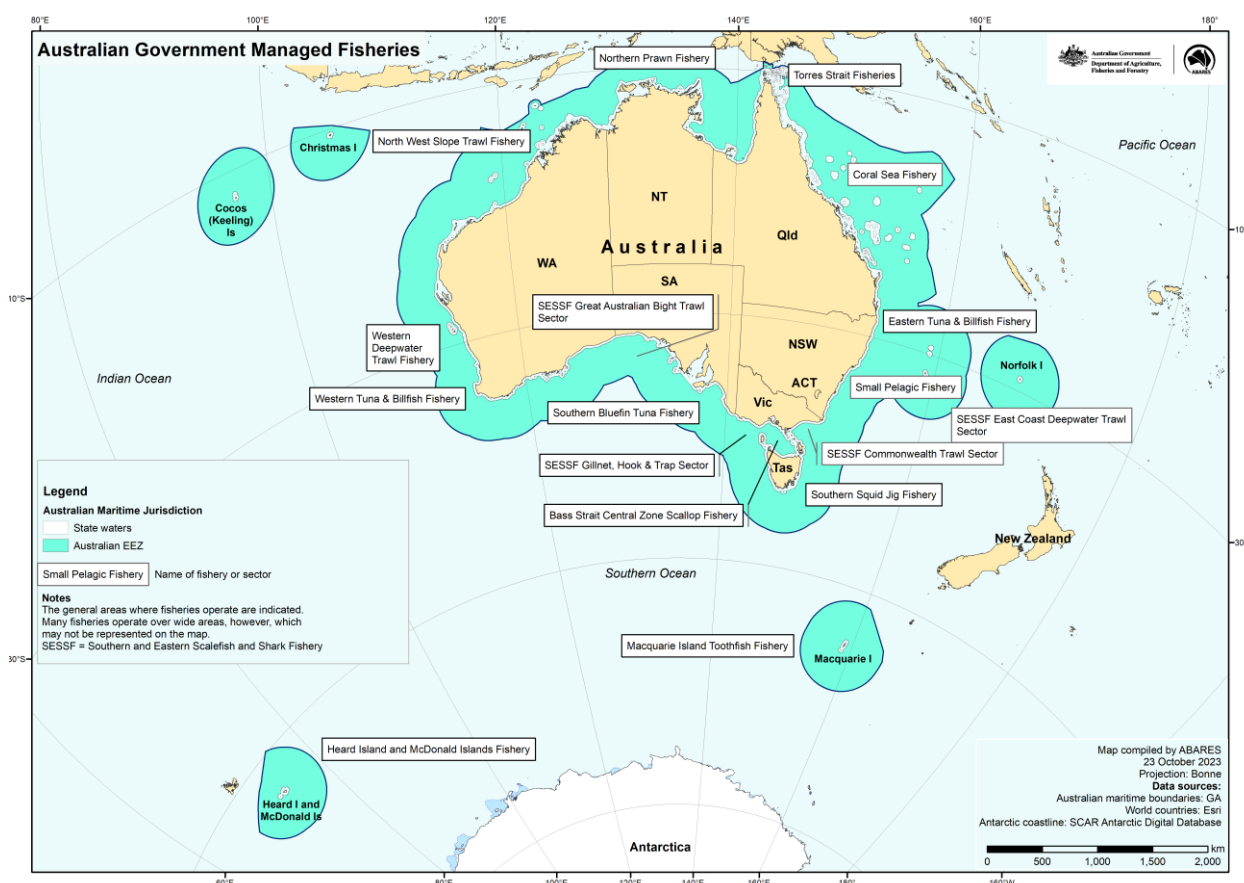
Source: FRDC Annual Report 2022-23, p. viii

3. OPERATING ENVIRONMENT

A brief overview of FRDC's operating environment during the review period is provided here as context for the review. It is not intended to provide a detailed, comprehensive assessment of all aspects of the complex social, political, environmental, and economic setting in which FRDC operates.

3.1 INDUSTRY PROFILE AND ECONOMICS

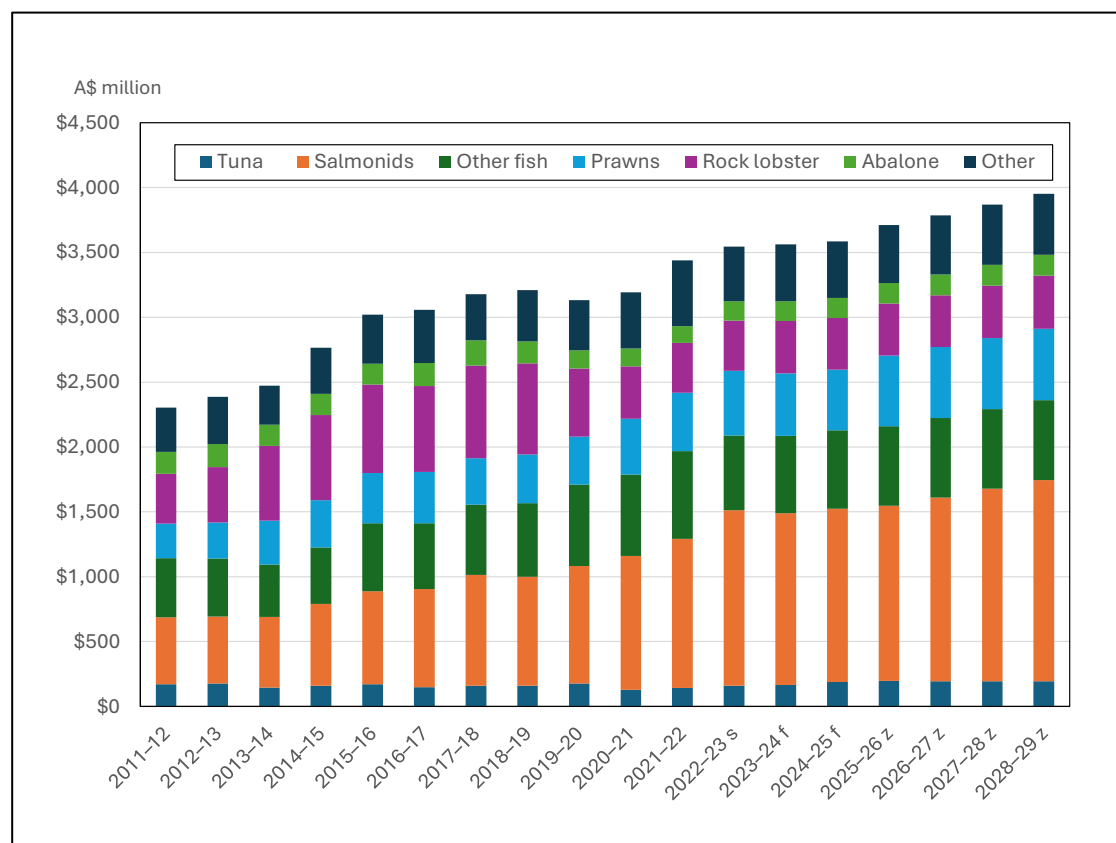
The Australian fisheries and aquaculture sectors are a notable part of the Australian economy, with an annual gross value of production (GVP) estimated at \$3.55 billion in 2022/23. The Australian fishing zones cover all parts of the Australian coast and its associated territories (Figure 5). By GVP, the largest producing state is Tasmania with a share of around 38 per cent, followed by Queensland, South Australia, Western Australia and Commonwealth fisheries (all around 12-13 per cent), New South Wales (6 per cent), Northern Territory (4 per cent), and Victoria (3 per cent).



Source: ABARES 2023a

Figure 5: Australian fishing zones

As shown in Figure 6, the GVP for the fisheries and aquaculture sectors has increased substantially since 2011/12, up by 54 per cent from \$2.30 billion. The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) predicts that the GVP will continue to increase, albeit at a slower pace, over the next six years to reach \$3.95 billion in 2028/29.



Source: Tuynman et al 2024

Notes:

s = estimated

f = forecast

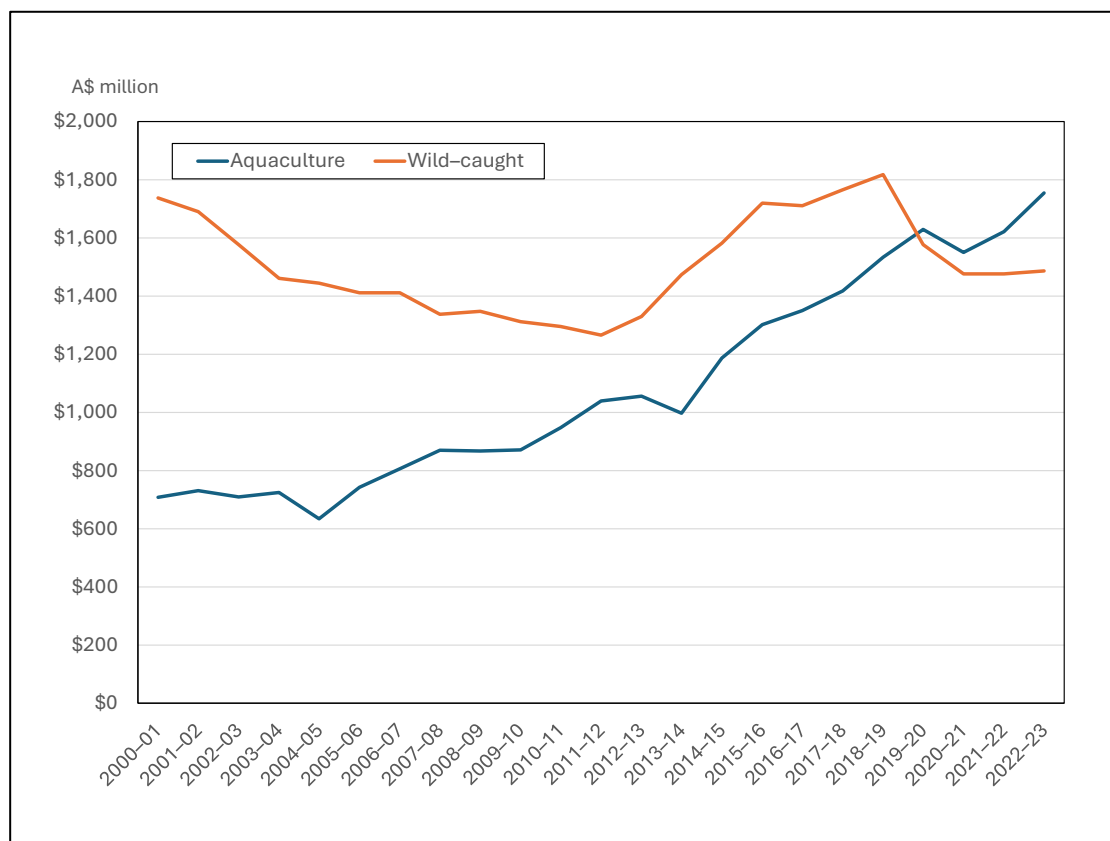
z = projected

Figure 6: Gross value of production for Australian fisheries and aquaculture sectors

By segment, the largest increase in the 11-year period since 2011/12 has been in value of production of salmonids (up by more than 160 per cent) while the GVP of prawns has increased by 87 per cent. In contrast, GVP of tuna and abalone have fallen by 7 per cent and 12 per cent respectively.

As a result of these relative differences in growth, salmonids accounted for 38 per cent of the total GVP in 2022/23 (up from 22 per cent in 2011/12), prawns had a 14 per cent share and rock lobster had an 11 per cent share. 'Other' fish and 'other' (including other crustaceans and other molluscs) had shares of 16 per cent and 12 per cent respectively.

The growth in the value of salmonids and, to a lesser extent, prawns is due mainly to the increased use of aquaculture. This is illustrated in Figure 7. In contrast, the GVP of wild catch has fluctuated around the same level in recent years. As a result, aquaculture now accounts for around 60% of industry GVP.



Source: FRDC 2024

Figure 7: Gross value of production by segment

The value of exports of fishery products from Australia has fluctuated between \$1.25 and \$1.58 billion since 2013/14. It totalled \$1.46 billion in 2022/23. The make-up of exports has changed significantly over the decade. Between 2013/14 and 2017/18, rock lobster, abalone, tuna, and prawns contributed around 80 per cent of export value, while salmonid exports only accounted for five to ten per cent of the total. Since 2017/18, salmonid exports have risen strongly to account for 31 per cent of exports in 2022/23. At the same time, exports of rock lobster have fallen sharply, down to 28 per cent of the 2023/23 total from almost 50 per cent in 2018/19. This decline has been most acute in exports to China, with virtually no exports of rock lobster to China since late 2020 due to claimed food safety concerns.

By volume, Australian domestic consumption of seafood declined by 1.5 per cent in 2021/22⁴ (the latest year of available data). Imported seafood accounted for 64.5 per cent of this domestic consumption.

In addition to commercial fishery and aquaculture production in Australia, the recreational fishing sector makes a notable economic contribution. The National Social and Economic Survey of Recreational Fishers (NRFS) for the period 2018-2021⁵ found that a total of 4.2 million adult Australians participate in recreational fishing. The survey also concluded that recreational fishing contributes over \$11 billion per year to the Australian economy and contributes to the employment of over 100,000 jobs. In addition to these estimated economic benefits, the survey found that, on average recreational fishers have higher levels of wellbeing than non-fishers.

The NRFS included the fishing activities by First Nations Australians. However, as the report from the Independent Review of the Indigenous Reference Group (IRG) notes, *'As important as the fishery resource is to the Australian economy and lifestyles of a significant section of the mainstream Australian community, the importance pales into insignificance when compared to cultural, spiritual and social value that many Australian First Nations people associate with the fishery resource, a resource that is also rapidly becoming an important component of First Nations economic self-determination in Australia'*.⁶

3.2 INDUSTRY ISSUES AND DEVELOPMENTS

The fishing and aquaculture industry faces a number of challenges and opportunities in coming years including climate variability, ecosystem preservation, food security, resource access and management, biosecurity and aquatic animal health, market access and people development. In preparing its RD&E Plan 2020-25, FRDC listed fourteen themes on which it based its five strategic outcomes. These provide a good summary of the issues addressed by FRDC:

- ✚ Culture and values;
- ✚ Markets and marketing;
- ✚ Technology and data;
- ✚ Innovation;
- ✚ Societal health and wellbeing;
- ✚ Social licence;
- ✚ Cost/revenue;
- ✚ Communications and influence;
- ✚ Resource sharing;
- ✚ Relationships;

⁴ Tuynman et al 2023

⁵ Moore et al 2023 and ABARES 2023b

⁶ Australian Venture Consultants, Independent Review of the Indigenous Reference Group, p. 11

- ⊕ Regulation/compliance;
- ⊕ Sustainability;
- ⊕ Leadership and decision making; and
- ⊕ People and capacity.

4. GOVERNANCE AND STAFFING

4.1 STRUCTURE OF THE BOARD

The PIRD Act allows for the FRDC Board to comprise up to nine directors, including the Chair and the MD. Non-executive directors (NEDs) other than the Chair serve a three-year term. The MD is appointed by the Board. The current MD has held the position since late 2004.

The Chair is appointed by the Minister. The Minister also appoints a Selection Committee, based upon the advice of FRDC's representative organisations, which is responsible for nominating one individual for each of the other NED positions. Such appointments are ultimately made by the Minister. The Minister may reject any nomination made by the Selection Committee and request another nomination.

The Selection Committee must nominate director candidates on the basis of their expertise in one or more of 14 fields listed in subsection 131(1) of the PIRD Act. These fields range from commodity production and processing through to science, economics, and public administration. The committee must also consult with the FRDC Chair on the '*appropriate balance of expertise and experience of directors of the Corporation*' (subsection 131(1A)) before making its nominations.

The FRDC Board underwent a substantial change in membership in October 2018, when five NEDs were newly appointed, joining the incumbent Chair, the MD, and two NEDs who had already served one three-year term. A new Chair was appointed in March 2020. In 2021, a further five new NEDs were appointed to the Board, replacing four one-term, and one two-term, directors. This current Board comprises the full complement of nine members. The current Chair retired in March 2024 and a new Chair and Board will be appointed later in 2024. There is nothing in the PIRD Act to prevent all Board members being replaced at once.

The 2018-21 and 2021-24 Boards have both shown a good mix of skills relevant to FRDC's business, but it is unfortunate that there is such rapid turnover of directors. FRDC is a highly complex business and many directors would still be learning about the organisation by the end of their first term. Each new intake requires a considerable investment of management time in bringing directors to a good level of understanding of FRDC's operating environment and its activities.

The previous performance review noted that it would be much better governance to have no more than half the directors retire at the same time, to ensure continuity between boards. We also note that, in the most recent Board effectiveness review, the second-lowest rated response among directors was to the statement '*The Board has appropriate ongoing renewal (including succession plans for the Chair, Committee Chairs and the addition and/or replacement of important skills and experiences)*'; the lowest rated response was for '*The process for recruiting new Directors works well*'.

FRDC will start to prepare a new five-year R&D plan later this year. If the high turnover that characterised the two previous Board recruitment processes is repeated, the new plan may be co-developed and approved by a group of directors who are relatively inexperienced with FRDC or indeed with the fishing and aquaculture sectors entirely.

We understand that FRDC has no control over Board appointments but feel compelled to note that the current process is suboptimal and imposes a real (if hidden) cost on FRDC and therefore on its funders. We suggest that the Boards of the statutory RDCs consider writing to the Minister requesting that appointments to the

Boards of their organisations place greater emphasis on continuity of corporate memory than is currently the case.

4.2 COMMITTEES

The Board has two committees: Finance and Audit, and People and Culture.

The Finance and Audit Committee (FAC) was previously named Finance, Audit and Risk Management (FARM). 'Risk' was dropped from the name during 2021/22 following a review of the committee's charter (policy), which elevated risk to be a responsibility of the whole Board, not just a committee. Despite the name change, the FAC does continue to have oversight of risk management processes and responsibility for financial and operational risks, among its other duties. The committee comprises three NEDs, one of whom is Chair. The FAC met four times per year over the course of the review period.

A People and Culture Committee (PCC) was established in 2018 following the recommendation of the previous performance review. The PCC was briefly renamed the Remuneration Committee during 2021/22, before reverting to its original name in June 2023 following an evaluation and revision of the committee charter. The PCC comprises a Chair (normally the Board Chair) and at least two NEDs. The PCC advises the Board on organisational, people and culture issues, including matters relating to remuneration, setting key performance indicators (KPIs) for the MD, and undertaking succession planning.

Directors reported that the committees are working well, noting that there is a strong match between director skills and committee membership.

4.3 BOARD PRACTICE

There are five Board meetings a year, two of which are held in Canberra, the other three in locations around the country providing good proximity to industry stakeholders. In 2024, for example, meetings will be held in Port Lincoln, South Australia; Townsville, Queensland; and Launceston / Beauty Point, Tasmania. Each of the regional trips by the Board includes a quite intense series of local engagement activities in addition to the Board meeting itself. Recently, the sequencing of activities was changed so that the Board meeting occurs before the various visits, when directors are fresh.

Directors report that meetings are constructive and dynamic and that all directors contribute to the discussion. The current Board has moved to put more distance between itself and management than previous Boards. Each Board agenda includes an *in camera* session at the start of the meeting that excludes all but the NEDs. Of the management team, only the MD and Company Secretary participate in the entire normal Board meeting, with other executives and managers attending only to present specific items. Not all directors agree with this approach and would prefer to see more members of the executive attend Board meetings as a matter of course.

The board and management play different but complementary roles in an organisation. It is important that NEDs have the opportunity to exchange frank views about the performance of management, and to raise concerns about specific issues, and this may be stifled by the presence of management in the room. Balanced against this is the value to the board of having management contribute directly to strategic discussions, given that those working in the business have the deepest understanding of the issues they face. Also, greater exposure of management to the board allows directors to better judge the quality of the team, helps to develop

the skills of individual managers, and assists senior managers to better understand the strategic intent of the board.

Governance authorities such as the Australian Institute of Company Directors do not appear to have a clear preference with respect to the attendance of management at board meetings. Our own experience has been that the presence of senior management adds considerable value to small organisations operating in complex environments and that the desire for private board discussions can be managed through *in camera* sessions. This may not be creating the optimum environment for achieving corporate objectives.

When the previous performance review was undertaken, in 2018, all projects with a budget exceeding \$200,000 (including GST) had to be approved by the Board. This created an enormous workload for the Board and forced it towards a more operational rather than strategic mode of working. The performance review recommended that *'The FRDC Board should consider options to assist it in its role in respect to RD&E, one of which would be the creation of a Research Committee of the Board'*.

A more proportionate project approval process was introduced during the term of the previous Board whereby all project proposals are subjected to a risk assessment. Any that are considered high risk or that involve one of the FRDC's Representative Organisations are referred to the Board for approval; all other RD&E investments including projects are approved by the MD as per the FRDC delegation policy.

There are two protective mechanisms accompanying this change. There is a requirement for certain projects to undergo external review before approval. Also, the MD sends an update to directors each Monday morning which includes (among other things) a list of all projects approved under delegated authority during the previous week. Directors have five days to register any concerns about, and to request board review of, any of the projects listed before they proceed to contracting. This is further discussed in section 6.3.

4.4 GOVERNANCE DOCUMENTATION

Governance documentation is thorough and current. FRDC's corporate policies, which include board and committee charters and the company code of conduct, are readily available on the website. Each policy is well linked to relevant internal and external documentation. The date of last review and the responsible person are clearly shown.

4.5 RISK MANAGEMENT AND COMPLIANCE

FRDC has obligations, most explicitly under the PGPA Act and PGPA Rule, to implement appropriate risk management processes.

Risk is soundly managed by FRDC. Its risk management framework comprises the Quality Management System, risk policy, risk register, risk management procedure and fraud control plan procedure. The risk policy is *'framed around the risk management international standard ISO 31000:2018 – Risk Management Guidelines, and content from the Department of Finance Risk Management Policy'*.

Notably, the policy includes a well-articulated risk appetite statement with clear tolerance triggers. The previous performance review noted some *'mismatch in perceptions of risk appetite, and effectiveness of management of risk, between [board and management]'*. The review recommended that *'FRDC should develop a deeper understanding of risk appetite and risk tolerance across the key risk areas in line with new risk policy and*

ensure that this is monitored regularly by the FARM Committee [now FAC]. Risk appetite should be set by the Board with tolerances agreed between the Board and management. In response to this recommendation FRDC has continued to focus on risk at the FAC and at Board level.

A feature of FRDC's risk management is an online dashboard that facilitates active monitoring of threat and opportunity risks. The dashboard, part of an 'intelligence system' created by the ICT and Digitalisation division, links FRDC's risk management to a continuous monitoring of the company's operating environment. This is a very impressive facility and not one we have seen in any other organisation.

FRDC participates in the Comcover⁷ Risk Management Benchmarking Survey. The 2023 survey saw FRDC assessed as having an Advanced maturity in risk management, the highest level of maturity on a five-level scale. Directors expressed a very high degree of comfort with the standard of FRDC's risk management in interviews for this review.

Compliance is similarly sound. FRDC maintains a detailed table of compliance obligations under the PGPA Act, the PGPA Rule, the SFA, the PIRD Act and other government policies and reporting requirements. The table shows each specific requirement and its source, a summary of FRDC's systems and controls, whether FRDC is compliant, and the position/s or group/s responsible for compliance. The most recent summary, sighted by this review, shows FRDC to be compliant with all relevant obligations.

FRDC reports against its compliance obligations in the annual report. In addition to the various provisions of the PGPA and PIRD Acts and related instruments, it also reports against a series of KPIs against the Performance Principles of the SFA, which are set out in the 'Guidelines for Statutory Funding Agreements' that accompany each RDC's SFA. These are aligned with corresponding targets and KPIs from the Monitoring and Evaluation Framework (see section 6.10).

4.6 MANAGEMENT TEAM

The previous performance review noted the lack of a formal succession plan for the MD role. The current incumbent will have been in the role for 20 years by the end of 2024. The enormity of the current MD's profile in fishing and aquaculture creates a considerable risk that his departure, when it inevitably occurs, will create a vacuum at the top of FRDC that will be difficult to fill. The current Board has placed a high priority on mitigating this risk and has recently developed a succession plan for the MD role.

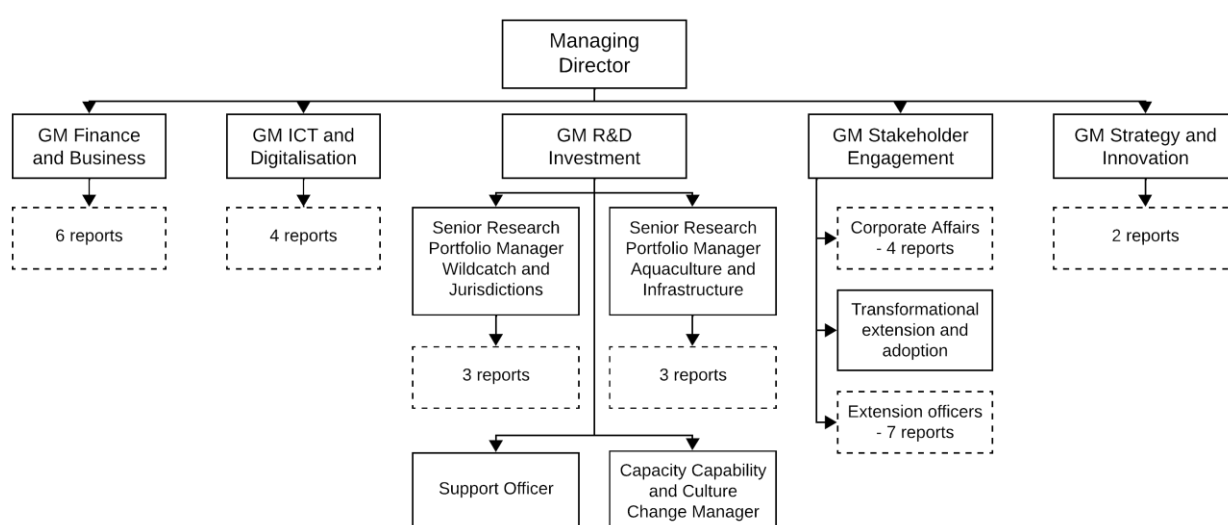
FRDC has put considerable thought into the evolution of its workforce. In 2017, it retained a consultancy firm to develop a strategic workforce plan. A new plan was commissioned in 2020, prompted by a range of developments in organisational focus, including a strengthening of extension, a desire to find better ways of delivering innovation, and a reduced emphasis on marketing and trade development. The plan was intended to enable the delivery of the R&D Plan 2020-25. It was built upon five design principles: agility and adaptability, putting clients at the centre, empowering staff, innovation, and value.

The 2020 workforce plan led to a substantial increase in FRDC's staffing. In 2018, FRDC had 20.4 full-time equivalent (FTE) staff across 22 people, including seven people working part-time. In 2022/23, the team

⁷ Comcover is the Australian Government's self-managed insurance fund

averaged 23.2 FTE across 28 people.⁸ However, the 2023 figures do not include nine staff who have been employed through a contracting arrangement with an external firm. This approach was necessary to circumvent a restriction on staff head counts in the public service, which applied to FRDC because it is an agency of DAFF. In April 2023 FRDC received the opportunity to increase the estimate average staffing levels to 46.3.

FRDC's current organisational structure is shown in Figure 8. The Executive Team comprises the MD and five GMs, and there are two Senior Research Portfolio Managers (SRPMs) in the Research & Development Investment (RDI) team.



Source: Adapted from the FRDC website, <https://www.frdc.com.au/frdc-organisation-chart>

Figure 8: FRDC organisation chart as of January 2024

The structure has changed significantly since 2018 performance review, when there were three GMs, responsible for Research & Investment, Communications, Trade & Marketing, and Business divisions of the organisation.⁹ There are three new GMs, one (Finance and Business) having been promoted seamlessly following the retirement of the previous incumbent. The creation of the SRPM positions within RDI (Research & Investment at the time) was a recent development when the 2018 review was undertaken and resulted from the 2017 workforce planning. This change both reduced the reporting burden on the GM and offered improved career progression opportunities for R&D staff.

⁸ FRDC Annual Report 2022-23, p.86

⁹ One of the GMs was responsible for both Communications and Trade & Marketing divisions

Since then, there has been a reshuffle to create separate divisions for Information and Communication Technology (ICT) and Digitalisation, and Strategy and Innovation (S&I).

The current structure is generally well balanced and appears to place appropriate emphasis on the various functions performed by FRDC. Several RDCs now have dedicated information and communications technology (ICT) / digital divisions, reflecting the growing importance of these functions not only to the company itself, but also to its stakeholders. The former Communications division has become Stakeholder Engagement and now includes a Manager of Transformational Extension and Adoption and seven extension officers (see below).

The S&I division was envisaged in the 2020 workforce plan as providing an enabling function across the entire organisation. It is a small team, currently comprising only two people since the previous GM left FRDC on a secondment in late 2023. S&I was deliberately designed to provoke change in the way FRDC delivers innovation. Interviews for this review indicated that this role is not well understood internally or externally.

Recommendation 1. FRDC should consider and clarify the interface between Strategy & Innovation and Research & Development Investment divisions and communicate their respective roles internally and externally.

It will be interesting to see how S&I evolves over the next few years, especially vis-à-vis the RDI function.

As noted above, a major change since the last performance review has been the appointment of a network of seven extension officers, collectively referred to as the Extension Officer Network (EON). The EON was created partly in response to a recommendation of the previous performance review that *'FRDC should strengthen its approach to extension, possibly by creating a specific position to oversee or coordinate extension across the organisation'*. As discussed later in this report (section 6.8), the EON has been very well received by stakeholders.

4.7 CORPORATE PERSONALITY AND CULTURE

As noted in the 2018 performance review, FRDC is considered by external stakeholders to be hard working and dedicated to its mission. The staff are professionally well respected and considered to be genuine and responsive to stakeholder needs. The view among many stakeholders that FRDC 'does too much' and 'should learn to say no' continues, although there is no clear view about what activities FRDC should not do. The MD is highly respected and continues to have a dominant presence both within FRDC and across the fishing and aquaculture sectors, as well as government.

The establishment of the EON seems to have further improved FRDC's relationships with stakeholders. Individual extension officers are well regarded and appear to be building constructive relationships within their jurisdictions. FRDC will need to ensure that the scope of extension officer activities remains within reasonable bounds, as large territories and growing demands on their time could see the extension officers become over-stretched (see recommendation 1 above, and section 6.8).

There is however a view among some stakeholders that FRDC places excessive emphasis on social and environmental issues, perhaps at the expense of the economic drivers of business. Those people who have a close relationship with FRDC understand that the organisation must be very cognisant of these issues: first, because social licence is increasingly a real part of the business operating environment, and it is FRDC's role to signal this evolution to its various sectors; and second, because government is FRDC's largest single stakeholder and FRDC must reflect its policies on matters such as access to public water resources and Indigenous reconciliation. Sharing of a common good – inland and coastal aquatic living resources – is a critical difference between the sectors served by FRDC and those served by other RDCs, whose industries utilise privately-held farmland. As a result, FRDC must pay more attention to the social and environmental issues than do other RDCs.

The workplace culture of FRDC is generally very positive, with staff describing it as supportive, curious, and innovative. Work arrangements are highly flexible. A significant proportion of staff are now based in locations other than Canberra and all come together in Canberra twice per year to share knowledge and build team cohesion. Staff turnover continues to be very low. However, a few staff members suggested that there is some sense of separation between employed staff and contractors. One GM expressed the view that the high growth in FRDC's staff numbers and the dispersed nature of the organisation means that it will need a better resourced and more structured human resources strategy than is currently in place.

As noted above (section 4.6), S&I was always intended to be a stimulant of change within FRDC, a group charged with trialling agile new approaches to innovation which would ultimately become embedded in FRDC's mode of operation. Staff (including those within S&I) are clearly still trying to understand how the new division should interface with other divisions, notably RDI (see section 6.3).

5. PLANNING AND REPORTING

5.1 INTRODUCTION

The fishing and aquaculture sectors in Australia are complex. There is a wide range of stakeholders in both private and public (government) spheres. These stakeholders have a myriad of plans among them, many of which are important to FRDC. FRDC has a graphic representation of how these plans interact and contribute to the FRDC R&D Plan. (Some version of this graphic could be employed in certain FRDC publications such as the R&D Plan to illustrate the complexity of FRDC's working environment.)

FRDC's planning and reporting processes and mechanisms are highly prescribed by the SFA, the PIRD Act, PGPA Act and the PGPA Rule. Also of relevance is the Commonwealth's 'Guidelines for Statutory Funding Agreements'.

There are three principal documents relating to planning and reporting. These are:

- ✦ The R&D plan;
- ✦ The annual operational plan (AOP); and
- ✦ The annual report.

Section 19 of PIRD Act requires R&D corporations to prepare R&D plans for each consecutive five-year period. Each plan is to include (at a minimum):

- ✦ *a statement of the Corporation's objectives and priorities for the period to which the plan is expressed to relate; and*
- ✦ *an outline of the strategies that the Corporation intends to adopt to achieve those objectives.*

Clause 9.4 of the SFA requires that FRDC '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, meeting, website, email or annual report).'*

To assist in the fulfilment of this obligation, FRDC developed a monitoring and evaluation framework document ('Measuring what Matters': FRDC's 2020-25 Monitoring and Evaluation Framework).

The relevant RD&E plan for FRDC for the performance review period is the 'Research and Development Plan 2020-2025: Imagining the Future of Fishing and Aquaculture'. There are also several AOPs and annual reports relevant to the review period.

5.2 OVERALL COMPLIANCE

As noted in section 4.5, FRDC produces a comprehensive summary of compliance against the PGPA Act, PGPA Rules, PIRD Act, the SFA and other requirements as at the end of the financial year (in the case of the document viewed, to 30 June 2023). This includes obligations with regard to planning and reporting.

There is nothing arising from this review that suggests that FRDC does not comply with, or is in danger of not complying with, planning and reporting requirements. The corporation documents its plans and reports comprehensively.

5.3 RESEARCH AND DEVELOPMENT PLAN

At the time of the last performance review, FRDC was about to embark on its five-yearly development of a new R&D plan.

FRDC's R&D Plan 2020-2025 seeks to respond to the diverse *'needs of stakeholders from across fishing and aquaculture, focusing on big, cross-sectoral issues of national importance while also ensuring that jurisdictional and sector needs are met'*. The plan was very thoroughly prepared, and it is obvious that industry stakeholders were widely consulted in its development, as noted in the plan itself:

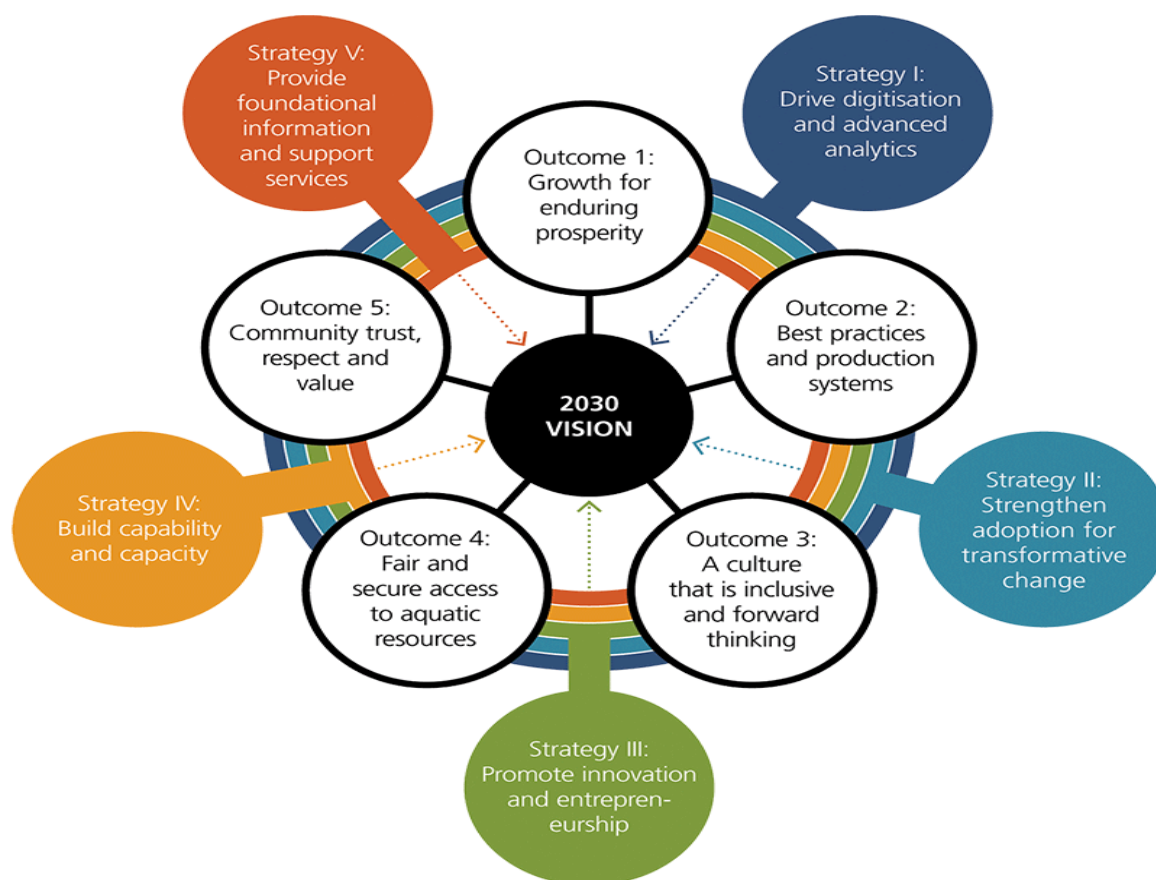
'In developing this five-year R&D Plan, the FRDC has:

- *consulted broadly and conducted research to gain a picture of each fishing and aquaculture sector,*
- *reviewed FRDC's business, management and practices to see how these can be improved, and*
- *used computer modelling to help understand how future dynamics may affect fishing and aquaculture.'* (p. 7).

FRDC also noted that it worked with stakeholders to explore alternative futures through scenario planning – a very good process to employ to broaden the scope and utility of planning outcomes. The purpose of exploring alternative scenarios was *'to encourage consideration of the changes that are already shaping today's world, how they might impact on fishing and aquaculture, and identify what might be required today to deal with dynamics that may emerge in the future'* (p. 7).

The R&D Plan 2020-2025 is accompanied by a companion document, 'Shaping FRDC's R&D Plan 2020–25', which provides a comprehensive situational analysis and summarises the fishing and aquaculture community's recent past, current status and imminent challenges. The companion document describes how the numerous plans relevant to the sector (such as the National Marine Science Plan) were analysed in great detail to identify and synthesise the themes of greatest importance to FRDC.

The R&D Plan 2020-2025 focuses on five key outcomes, supported by five enabling strategies. This is graphically represented in the plan as reproduced in Figure 9. Interestingly, the plan also reflects on FRDC's alignment with the 17 United Nations Sustainable Development Goals.



Source: FRDC R&D Plan 2020-25, p. 13

Figure 9. The framework of the FRDC R&D Plan 2020-25

The five key outcomes are:

1. **Growth for enduring prosperity** – enduring and balanced ecological, social and economic growth for community benefit;
2. **Best practices and production systems** – diverse benefits from aquatic resources in a manner consistent with shared principles;
3. **A culture that is inclusive and forward thinking** – a community of fishing and aquaculture that is cooperative, diverse and well equipped to enable growth and adaptability in a complex and uncertain world;
4. **Fair and secure access to aquatic resources** – integrated management of Australia’s aquatic resources, providing certainty and confidence; and
5. **Community trust, respect and value** – people justifiably feel good about using the products, services and experiences provided by Australia’s fishing and aquaculture community.

The section on ‘Enabling strategies to help achieve R&D Plan outcomes’, which describes the enabling strategies in jargon-free terms, helps crystallise the plan and this is commendable:

‘To help make progress towards the five R&D Plan outcomes easier, the FRDC will also invest in five enabling strategies:

- I. ‘Drive digitisation and advanced analytics’ (this means expanding capacity to make decisions based on data).*
- II. ‘Strengthen adoption for transformative change’ (this means increasing adoption of results from R&D to bring about beneficial change).*
- III. ‘Promote innovation and entrepreneurship’ (this means encouraging new solutions, products and processes as well as new ways of thinking and doing).*
- IV. ‘Build capability and capacity’ (this means helping people from across fishing and aquaculture to have the knowledge and skills needed to be safe, happy and productive, and to adapt and flourish in the face of change).*
- V. ‘Provide foundational information and support services’ (this means delivering information to guide the evolution of fishing and aquaculture in Australia)’ (p. 25).*

In the previous performance review, it was suggested that FRDC should consider *‘simplifying the current investment matrix’ of ‘RD&E investment programs’ x ‘national priorities’ x ‘national RD&E infrastructure’ x ‘investment framework’*. The complex structure in existence at the time was likely to hinder stakeholder understanding of and engagement with FRDC’s key priorities. Following the completion of the performance review, a consultancy was commissioned to review and seek to streamline FRDC’s investment processes.

Figure 9 certainly does simplify FRDC’s investment matrix, although it could be argued that it is very high level, not specific enough and difficult to measure. Several stakeholders interviewed for this review commented on the high-level and very broad nature of the five key outcomes. While such criticism is reasonable, the structure of the plan probably allows FRDC and its stakeholders maximum flexibility in where to invest. FRDC also notes that the plan seeks to achieve a shared vision of what fishing and aquaculture might look like in Australia by 2030.

While the five outcomes are quite high level, the plan does provide guidance on the type of investment in R&D that FRDC will undertake.

The previous review also suggested that future editions of the plan would benefit from *‘providing a ‘plan on a page’ at the front of the document to clearly communicate to stakeholders the key components (and targets) of the plan’*, and *‘developing relevant targets for all aspects of the ‘business’ – national infrastructure priorities, sector and jurisdictional partners and organisational performance’*. The new R&D plan does include a one-page ‘R&D Plan at a glance’ that provides a good summary of the key components of the plan.

In our view, the main area for improvement in the R&D plan – and subsequent AOPs and annual reports – is a lack of measurable outcomes to be achieved (key targets or KPIs) as distinct from outputs obtained. The previous performance review observed that future plans should build on the current targets (Table 2 in the old plan¹⁰) and provide an increased number of objective and stakeholder-relevant targets / KPIs for these priorities. This has not been achieved in the new R&D plan even though the plan clearly lists the FRDC’s

¹⁰ TABLE 2. Aims and targets for each of the three national priority areas during the life of the RD&E Plan. FRDC Research, Development and Extension Plan 2015-2020

planned outcome as *‘increased economic, social and environmental benefits for Australian fishing and aquaculture, and the wider community, by investing in knowledge, innovation and marketing’* (p. 5).

FRDC’s R&D plan is well prepared and comprehensive. However, the lack of detailed KPIs for the organisation as a whole limits stakeholder ability to monitor progress of the organisation. Such KPIs are required from the R&D plan through the AOPs to the annual reports with a clear ‘line of sight’.

Recommendation 2. The next version of the R&D plan should include some organisational key performance indicators and these should cascade through the annual operational plans and annual reports.

5.4 ANNUAL OPERATIONAL PLANS

FRDC prepares an AOP each financial year to guide practical delivery of the current R&D Plan, describing what will be done next to enable the strategic intent to be achieved. Each AOP also summarises income and expenditure that will underpin planned activities for the year ahead.

There have been five AOPs over the period of this review from 2019-20 to 2023-24. AOPs have improved over the period, especially from 2020/21 when the new R&D plan was ushered in. There is a good ‘line of sight’ from the R&D plan to each AOP since the new R&D plan was introduced. Indeed, each AOP shows the year of implementation of the R&D plan to which it refers (year 1, year 2 etc).

The AOPs provide a good coverage of investment for the year ahead and are usually structured along the following lines:

- ✦ Summary;
- ✦ FRDC overview;
- ✦ Key strategic risks;
- ✦ Operating environment;
- ✦ Investment – income and expenditure summary;
- ✦ Key activities for the financial year in question – existing and new investments;
- ✦ Strategic alignment with other plans and reports such as the Commonwealth Government’s research objectives;
- ✦ Evaluation framework;
- ✦ Governance framework; and
- ✦ Investment allocation – budget statements; statement of financial position; cash flow statement.

A description of collaboration activities in the key activity section is impressive and demonstrates the collaborative nature of FRDC. So, too, is the identification of FRDC’s increased focus on post-project delivery by the establishment of the EON in May 2022.

The previous performance review noted the improvement in the content of AOPs over time. Such improvement has continued especially around the time of the new R&D plan. However, in contrast to plans reviewed in the previous performance review period, there now appears less of a focus on outcomes to be achieved and more on outputs. This carries over from the new R&D plan that also lacks detailed KPIs at a corporation level (see recommendation 2).

5.5 ANNUAL REPORTS

There are four annual reports relevant to the review period (2019/20 to 2022/23). Like most other RDC annual reports, they are very long (almost 200 pages each), very detailed, and not particularly user-friendly except to the most avid reader. This is largely due to the requirement for the annual report to cover a very extensive list of content components as set out in the various Acts and the SFA and is certainly not unique to FRDC. Each annual report has an appendix detailing each of these requirements and indexing where the relevant information can be found in the report. These appendices provide a clear picture of how the organisation is complying with the various Acts and other governing documents.

Interviews for this review found that the annual reports are not widely read – again, a situation not unique to FRDC.

Reports have generally followed the same structure over the review period but have progressively improved over time. The key achievements and summary / overview sections provide a useful summary of the main deliverables, activities, income, and expenditure. They also provide a summary of where investments have been made across the portfolio (programs and more recently outcomes from the new R&D plan), length of projects (short, medium, long) and the risk profile of the projects (applied versus basic). Annual reports in general also tend to be very output focussed rather than reporting on outcomes and impacts (although impact assessments are mentioned).

The Annual Report 2019-20 included reporting against specific targets for each national priority in the (then) RD&E plan and there were useful examples of project activity during the year against each of these priorities. Performance was also judged against Portfolio Budget Statement indicators. This level of reporting was not as evident in reports produced following the implementation of the new R&D plan although FRDC continued to report against Portfolio Budget Statement indicators. The exception is the Annual Report 2022-23 which provided a summary of FRDC's performance against the SFA Performance Principles. This is a new development and should be complimented, although it is not particularly user-friendly to read and the basis of the SFA's KPIs is not especially clear. It does help FRDC to demonstrate achievement of clause 9.4 of the SFA.

The annual reports generally provide a summary of those projects on which an economic evaluation has been done (for example, see page 72 in the Annual Report 2022-23). They also give a good snapshot of key projects completed over the period.

Reports produced after the development of the current R&D plan detail activities against each of the five key outcomes in the R&D plan and progress of those activities. They also reference activities against the five enabling strategies.

As part of operationalising FRDC's R&D Plan 2020–25, FRDC consults widely and holds an annual stakeholder planning workshop (see section 6.2). As FRDC states, *'this helps to confirm the importance of*

areas driving positive change to deliver impact across fishing and aquaculture'.¹¹ These processes have helped highlight 10 strategic opportunities within FRDC's R&D Plan 2020–25. These are presented in the annual report and progress against each is reported on.

Annual reports also list international and national collaboration initiatives along with joint RDC initiatives demonstrating FRDC's excellent focus on collaboration. This is an impressive component of the annual report.

The Annual Report 2022-23 started using infographics to show report highlights. This is an improvement. At the same time FRDC prepared a short video highlighting key outputs over the period. The video provides a good snapshot for those not wanting to read the report itself, although it is very focussed on outputs.

In general, the annual reports are extremely detailed and describe comprehensively all the activities of FRDC over the financial year, but they lack some clarity of outcomes achieved (rather than outputs) at a corporation level.

¹¹ FRDC Annual Report 2022-23, p. 5

6. RD&E MANAGEMENT AND DELIVERY

6.1 INTRODUCTION

FRDC's primary function is to plan, invest in, and manage R&D for fishing and aquaculture, whilst also ensuring knowledge and innovation are adopted for impact. FRDC uses an extensive consultative process to develop its various plans, engaging government representatives, industry leaders, researchers, private consultants, and innovators. FRDC also engages with industry advisory structures to identify and address the needs of the fishing and aquaculture community within jurisdictional boundaries.

FRDC has the challenge of servicing the needs of five sectors with significantly different expectations, aspirations and ways of operating. Wild catch and aquaculture have similarities with other agricultural industries in that they are focused on key drivers of productivity and social licence such as animal welfare, disease management, energy, and emissions, whereas Indigenous groups and the recreational fishing sector have greater need for human capacity development and sustainable access to national fishing stocks. However, as all sectors use the same basic resource (public waters), they have some common imperatives such as biosecurity, environmental stewardship, and the impacts of future climate variability. These elements require a strategic approach that is multi-sectoral and heavily dependent on the ability to engage, obtain buy-in and coordinate across numerous stakeholders.

FRDC's RD&E procurement process must balance these numerous competing considerations. It is further complicated by FRDC's very complex funding arrangements, as described in section 2.3.

An additional complication is the desire from fishing and aquaculture sectors for FRDC to invest in R&D that enables them to tackle current and emerging opportunities and challenges, such as climate variability and global sea temperatures. As a result, FRDC's procurement process continues to evolve and it has changed over the last four years. It provides opportunities for longer-term strategic investment through the recently established S&I team, applied R&D through dedicated Industry Partnership Agreements (IPAs, driven by the RD&I team) including a coordinated approach to capacity and capability building, and enhanced extension, and communication through the stakeholder engagement team and the EON.

FRDC's investments are guided by the R&D Plan 2020-25, as described in section 5.3. Industry investments are further defined through reference to both industry plans such as the AFMA statement of intent and the Seafood Industry of Australia (SIA) Strategic Plan 2023-27. Individual industry R&D plans inform key priorities within each of the IPAs. State and territory jurisdictional plans further inform both industry and public priorities which are then further expanded by Research Advisory Committees (RACs) and the IRG. Overall, the cascading approach provides numerous opportunities for effective and efficient fishing and aquaculture sector engagement by FRDC. However, it can be at times confusing and convoluted, and this does present challenges for ensuring fair and equitable distributions of RD&E investment as perceived by FRDC's stakeholders.

6.2 INDUSTRY R&D CONSULTATIVE PROCESSES

Stakeholder consultation is crucial for impactful R&D. FRDC follows best practices to ensure transparent, accessible, and well-planned engagement, in some cases co-designed with stakeholders. FRDC staff

collaborate with the wild catch, aquaculture, and recreational fishing sectors, the Indigenous community, and Commonwealth and state / territory resource managers to design investments that address their needs. It is evident that stakeholder input shapes FRDC's strategic focus and initiatives, as outputs and outcomes from consultation are documented in the R&D plan and successive AOPs. FRDC uses several mechanisms in its industry consultation on RD&E investment. These include:

1. An annual stakeholder planning workshop with industry stakeholders and partners;
2. Industry representative groups;
3. RACs;
4. IPAs;
5. Thematic coordinating program reference groups such as the Capacity and Capability Advisory Committee; and
6. The EON.

These mechanisms are further described in sections 6.2.1 to 6.2.4. There is extensive interaction between them. The annual stakeholder planning workshop attracts a multitude of industry participants which include industry representative groups, individual business owners, RAC members and RD&E providers. There are joint investments between IPAs and RACs and there are individuals who link across several of the committees. Furthermore, the EON is forming strategic links and relationships with key entities within jurisdictional areas including the RACs and state committees. As noted earlier, this is an intricate network of consultative opportunities which, whilst providing FRDC with very comprehensive engagement, does lead to a view among some industry stakeholders that their opinions are not heeded by FRDC as much as they would like. It is inevitable that these sentiments exist.

6.2.1 ANNUAL STAKEHOLDER PLANNING WORKSHOP

One of the key vehicles that FRDC uses to engage with a wide cross-section of industry stakeholders is the annual two-day stakeholder planning workshop. This workshop format has been in place since 1997 and continues to be well regarded by most industry stakeholders. The workshop is held in October of each year (although due to COVID-19 it was conducted by videoconference in 2020 and 2021) and forms the start of the annual RD&E investment process in that it provides an opportunity for FRDC to synthesise results from the past year and to identify current and emerging priorities for the next AOP. A series of structured feedback sessions was held for each of the sectors prior to the 2023 workshop.

The planning workshop has been facilitated by experienced independent consultancy companies, with Impact Innovation used in 2022 and 2023. The structure of the workshop in 2023 was modelled on co-design principles. An additional element in 2023 was the introduction of the theory of change (TOC) for participants which has important ramifications for adoption and implementation of R&D outcomes and is now embedded in (for example) the recent capacity and capability monitoring and evaluation (M&E) framework.

The 2023 workshop involved over 200 participants from all sectors, including fisheries managers and researchers. Around 50 per cent of those invited attended, reflecting the importance that industry participants place on the planning workshop.

Notably, FRDC has published proceedings from that workshop (and preceding workshops) on the FRDC website, included comprehensive summaries and evaluations of each workshop. The summaries identify both sector-specific and cross-sectoral priorities. They provide important transparent records of the industry consultation that occurred at the planning workshop for industry stakeholders who were not in attendance.

6.2.2 SECTOR AND SUB-SECTOR REPRESENTATIVE BODIES

There are three ministerially-declared representative organisations with which FRDC is formally obliged to consult. Those groups form an important conduit to wider industry consultation:

- ✚ Seafood Industry Australia (representing the seafood industry at a national level);
- ✚ Australian Recreational and Sport Fishing Industry Confederation Inc. (representing recreational and sport fishers); and
- ✚ Commonwealth Fisheries Association Inc. (representing commercial fishers who operate in Commonwealth fisheries) including both industry and private entities.

FRDC has also an established Indigenous Reference Group (IRG) which effectively interacts with FRDC as a representative organisation (see section **Error! Reference source not found.**). The Australian Recreational Fishing Foundation is also included in representative organisation meetings.

FRDC staff meet formally with each of the representative groups with at least two meetings being face to face, and nominally one a session with the FRDC Board. There are also many more informal interactions between representative organisation members and key FRDC staff.

In addition to the national whole-of-sector representative organisations, there are numerous peak bodies representing specific products (for example, western rock lobster, prawns etc) – at state / territory and national levels. All such organisations have direct input into the planning processes of FRDC through the annual planning workshop, dedicated projects, IPAs, and other mechanisms.

6.2.3 RESEARCH ADVISORY COMMITTEES

There are eight RACs, one for each of the states, the Northern Territory, and the Commonwealth. FRDC sees the role of the RACs as to *'provide advice to the FRDC on the priorities and investment needs in its jurisdiction for those sectors that are not covered under IPAs, and issues of public good within the jurisdictions'*.¹²

There is a formal RAC Management Procedure in place. It details matters such as:

- ✚ Composition of RACs;
- ✚ Appointment process, tenure and so on;
- ✚ Role of the RACs;
- ✚ Conduct of meetings;

¹² RAC management procedure, January 2024

- ✚ Management of conflict of interest; and
- ✚ FRDC's approaches to planning and priority setting, portfolio balancing, collaboration, RD&E applications, extension, and evaluation.

Whilst RACs provide advice to the FRDC on research priorities and investment needs, notably each of the RACs is also accountable to the respective jurisdictional Director of Fisheries, sector bodies, and the community. The membership of each RAC also includes representation and expertise from the fishing and aquaculture sectors. RACs are skills-based, containing a mix of expertise, and normally comprising six to eight members plus the Chair. FRDC provides administrative support. Some RACs have representatives from state research committees, which helps to strengthen the relationship between FRDC and sector participants.

Whilst each RAC had developed a five-year RD&E plan, there are now annual mechanisms to implement R&D investment via FRDC's annual planning and investment cycle. RACs take the lead at jurisdictional level in identifying, synthesising and aggregating stakeholder priorities, considering avenues for delivery of R&D outputs and identifying suitable extension activities, assisting in monitoring FRDC-invested activities, aiding in the delivery of outputs, and finally helping to identify potential external technical reviewers of applications, including RAC members with suitable expertise and no conflicts of interest.

Following the previous performance review, FRDC commissioned a review of FRDC's partnership models, including the RACs. The review presented several possible models to streamline the way FRDC prioritises its investments. One such model suggested by the review to reduce complexity and increase collaboration involved rationalising the number of RACs from eight to four. We understand that FRDC proposed to adopt this approach but that there was very strong backlash to it from the jurisdictions. As a midway position, FRDC instead halved the number of RAC Chairs, so that each Chair now handles two RACs (New South Wales and Queensland, Victoria and Tasmania, South Australia and Western Australia, the Northern Territory and Commonwealth). The appointment of the common chairs has strengthened the interaction between the jurisdictions.

Another important change since the time of the last review is that there is no longer a separate budget for each of the RACs. Rather, priorities identified by RACs are published within defined calls for applications. This loss of direct control over funding decisions has caused some tensions within the RACs and jurisdictions which is discussed further in section **Error! Reference source not found..** We do note however that there is still an obligation for FRDC to demonstrate that funds collected within each of the jurisdictions are spent within those states or territories. FRDC reports on jurisdictional expenditure. For example, the Annual Report 2022-23 shows that the average return on contributions (multiplier) was 4.06 for the jurisdictions and ranged from 2.81 to 10.2.

6.2.4 INDUSTRY PARTNERSHIP AGREEMENTS

IPAs are formal agreements between FRDC and individual fisheries / aquaculture sectors to prioritise, plan, and manage RD&E, ensuring the sector's needs are met and maximising effectiveness and adoption of research. Preconditions for entering an IPA include a strong existing partnership, coordinated approach, and stability of the sector.

All IPAs require a planning process to prioritise RD&E needs and develop sector-specific strategic plans. Importantly, FRDC encourages industries with IPAs to explore collaborative opportunities within and outside of FRDC, including co-investment of IPA funds in cross-sectoral RD&E. An example of the leverage achieved

by IPAs is the multiplier of 2.37 on the Australian farmed prawns levy as indicated in the Annual Report 2022-23.

Procurement for IPAs is primarily a mix of targeted open calls and select tenders and commissioned R&D. Importantly, most applications are subject to external review.

There are currently 12 IPAs, with:

- ✚ Abalone Council of Australia;
- ✚ Australian Abalone Growers Association;
- ✚ Australian Barramundi Farmers Association;
- ✚ Australian Council of Prawn Fisheries;
- ✚ Australian Prawn Farmers Association;
- ✚ Australian Southern Bluefin Tuna Industry Association;
- ✚ Oysters Australia;
- ✚ Pearl Consortium;
- ✚ Salmon Tasmania;
- ✚ Southern Ocean;
- ✚ Southern Rock Lobster Limited; and
- ✚ Western Rock Lobster Council.

In addition, recreational fishing has a coordination program that is focused on the developed of strategic planning and priority setting for that sector.

Unsurprisingly, investments made under IPAs tend to be lower risk and commercially-focused (see also section 6.6). Investments in agtech and other higher-risk innovation are often difficult to promote through IPAs, particularly as the FishNet process (see section 6.3) does not work well for non-traditional R&D providers. There is a degree of concern among non-IPA stakeholders that IPAs have too much power in setting R&D agendas including the allocation of government funds towards private benefit rather than public good.

FRDC imposes a 12 per cent administration fee on IPAs. This charge was consistently raised in discussions with IPA stakeholders, although there was a general acceptance of its validity. In fact, FRDC corporate overheads are closer to 15 per cent, so 12 per cent is not excessive.

6.3 PROGRAM PROCUREMENT, MANAGEMENT AND REPORTING

FRDC has an extensive 'Investment in research, development and extension (RD&E)' policy that is frequently reviewed and updated (the latest version being dated 24th January 2024). The policy is given effect by a comprehensive suite of procedures governing aspects of RD&E management including funding applications, application evaluation and project management. FRDC uses a combination of open call, select tender and direct commission to obtain project proposals. This provides flexibility to FRDC to select the best mechanism to procure projects and potentially reduces burden on R&D providers that may not be successful in project selection.

There are nominally three (with at least two) scheduled project calls per year. However, targeted open calls may be made if there are priorities within key thematic areas that need to be addressed. Applications for funding must be made through FRDC's FishNet platform. This ensures a consistent approach in the application stage. Importantly, FRDC has removed the requirement for preliminary research proposals and has moved to a more succinct full research proposal application process. This has improved the efficiency of project selection.

Applications must be consistent with the FRDC R&D Plan, or an FRDC partner strategic RD&E plan, or otherwise address a nominated priority area. All applications are evaluated against a standard set of risk and compliance criteria. FRDC uses external reviewers (usually two) to review all applications that have a scientific objective. The use of external reviewers is commendable in that it ensures that the R&D is integral and fit for purpose. It also helps FRDC management assess the risk of an application at various stages. Applications (particularly those that are received against IPA objectives) are assessed against potential beneficiaries to determine attractiveness and likelihood of adoption.

FRDC management prepares an evaluation and forwards it for review by a SRPM or GM. FRDC has a transparent evaluation process and formal template in which all applications are evaluated against the following criteria:

- ⊕ Reputational risk – is there a danger to FRDC stakeholders' reputation/brand, and might operations cause unwanted publicity?;
- ⊕ Budgetary risk;
- ⊕ Investment in a FRDC representative organisation;
- ⊕ Relevance to Government priorities;
- ⊕ Feasibility and attractiveness including stakeholder support and likelihood of adoption;
- ⊕ Political – is the intended action in conflict with government policy? Has a political party requested the activity?;
- ⊕ Ethical – is there a risk of deaths of vulnerable, endangered, or protected species?; and
- ⊕ Welfare – are there any tangible consequences for workplace health and safety, animal welfare, or human welfare?

If there is a significant level of risk associated with an application, the application is referred to the Board. As noted in section 4.3, the previous Board increased the MD's delegation limit from \$200,000. The revised delegation limits have streamlined the approval process and allowed both Board and management to focus more on their key roles. As a safety mechanism, the Board receives a list of projects approved under delegation via the MD's weekly update. Board members have five working days to identify any investments that they consider warrant further evaluation and discussion.

One of the key challenges that FRDC faces, in common with other RDCs, is having the capacity to respond quickly with needed R&D when a key issue or emergency arises such as a disease outbreak. To ensure that there is agility, the FRDC MD has the ability to allocate funding to projects that warrant immediate action. This funding (the Response Fund) is highly regarded amongst the stakeholders who were interviewed, with several positive experiences being cited. Projects funded through this mechanism are also flagged in the MD's weekly report to ensure that there is transparency.

Overall, FRDC has a well-structured and well-regarded procurement process. Whilst it is complex, it does serve the mosaic of sectoral needs and provides a high level of accountability and transparency.

Project management is a key feature of FRDC. FRDC has invested in the development of 'FINO', a customer relationship management database that is a translation of the Microsoft Dynamics® platform. FINO provides a companywide ability to allocate projects against a variety of reporting requirements including the current R&D priorities, government research priorities, and business intelligence. It also provides a systematic approach to reporting and investment interrogation. The web-based reporting also enables stakeholders to track progress against investments.

FRDC is generally well regarded for its flexible and agile approach to project management, however given the breadth of activities and the large number of new and active projects (currently 134 and 451 respectively) there are times where response times are greater than expected.

FRDC has established a very comprehensive online knowledge hub that provides access to all completed reports (except those that are commercial-in-confidence). The search engine and criteria used for the knowledge hub are well designed and logical. However, industry stakeholders who were interviewed indicated that they often did not have the time or resources to use the knowledge hub effectively and believed that targeted dissemination of report outcomes is still required. FISH magazine was viewed as an important conduit of information, and its move to electronic form and reduced frequency was seen as a backward step by some stakeholders.

6.4 FINNOVATION

Just prior to the preparation of this report, the FRDC board approved the launch of Finnovation, a new channel for innovation investment in FRDC, to be managed by the S&I division. Finnovation '*...was developed because Australian fishing and aquaculture have traditionally underutilised investors and start-up/scale-up companies (early-stage small to medium enterprises; SMEs) to create value through commercialisation of novel solutions to sector challenges*'.¹³

Finnovation has been modelled on programs with similar intent in other RDCs, for example GrainInnovate and the Meat & Livestock Australia (MLA) Donor Company. Like these programs, Finnovate is designed to unlock sources of capital other than the sector and government contributions on which FRDC currently relies, as well as mobilising innovation from outside the usual RD&E network – and outside fishing and aquaculture. An investment partner (a venture capital investor or similar) will be appointed to oversee the fund. The aim is for Finnovation to invest \$54 million in R&D over seven years.

FRDC's communications list a diverse range of focus areas for Finnovation, from Indigenous-led initiatives to sustainable fishing, ecosystem regeneration, climate change resilience, genomics, and artificial intelligence. Investments will be consistent with FRDC's R&D Plan (although, as noted in section 5.3, the R&D Plan is open to a very wide range of activities). The Board is keen for a high level of participation by IPAs in the program.

¹³ FRDC Update March 2024, <https://www.frdc.com.au/research-innovation-briefings/frdc-update-march-2024#toc-finnovation>

We understand that initial engagement suggests general support for Finnovation among IPAs, but that they seek more detail before they will make firm commitments.

There remains some uncertainty among staff as to how Finnovation will operate and the types of projects it will actually attract. There is even some question as to whether a program like Finnovation can be effectively managed within an RDC environment without running into probity constraints. Uncertainty and speculation are to be expected with the launch of a new and very different approach to innovation. It is commendable, though, that the organisation is attempting something that may help it to ride out future shocks to the RDC system.

Finnovation is expected to be in operation later in 2024.

6.5 COLLABORATIVE RD&E

The fourth performance principle of the SFA is *'To undertake strategic and sustained cross-industry and cross-sectoral collaboration that addresses shared challenges and draws on experience from other sectors.'*

There are several notable differences between FRDC and the other 14 RDCs. Despite this, FRDC has a solid reputation as a proactive and productive partner in several collaborative projects in the previous Rural Research for Profit (RRFP) rounds. It still actively engages in several cross-industry activities including the Emerging National Rural Issues forum and community trust projects with AgriFutures Australia, as well as the Agrifood Data Exchange project led by MLA. FRDC is also an active member of the CRRDC. FRDC invests in various initiatives through AIA and contributes R&D and commercial endeavours to grow^{AG}. It is a partner and contributor to evoke^{AG}. In our experience dealing with other RDCs, the FRDC executive are held in high regard, often challenging aspects associated with cross-industry planning and RDC collaboration.

In addition to the RDC collaboration, FRDC has a very impressive suite of investments with a range of other partners. FRDC is a very active supporter in several Cooperative Research Centres (CRCs), as shown in Table 3, which has generated access to R&D investments of over \$400 million. FRDC has strong partnerships with government initiatives including investments where there is significant public: private leverage. FRDC is also an important international collaborator and investor in several projects that have important consequences for global fisheries policies and sustainability objectives.

Table 3. Examples of FRDC collaborative partnerships and investments with CRCs, government, private sector, and international agencies

COLLABORATION	TYPE	ABOUT	FRDC ROLE	OUTCOMES
Blue Economy CRC	CRC	The Blue Economy CRC seeks to enable innovative, commercially viable and sustainable offshore developments and new capabilities that will see significant increases in renewable energy output, seafood production and jobs that will transform the future of Australia's traditional blue economy industries.	Collaborative investor	Development of Australia's Blue Economy and the Futures of Seafood
Marine Bioproducts CRC	CRC	A not-for-profit CRC bringing together more than 70 partners from academia and industry. Dedicated to producing new and sustainable products from our marine environment.	CRC partner	Create more value from marine resources, with particular focus on seaweed.
End Food Waste CRC	CRC	A 10-year, \$120 million collaboration established in 2018 that brings together 45 industry participants, 6 state and territory governments and 8 universities to tackle Australia's \$37 billion a year food waste challenge.	CRC partner	Reduce food waste to increase profitability and deliver economic, environmental, and social benefits
Solving Antimicrobial Resistance in Agribusiness, Food and Environments Cooperative Research Centre (SAAFE CRC)	CRC	A ten-year \$149 million collaboration that brings together 70 partners to tackle the challenge of increasing resistance to essential antibiotics, antifungals, and antimicrobials.	CRC partner	Improve resilience and profitability by combating resistance to essential antibiotics, antifungals, and antivirals

COLLABORATION	TYPE	ABOUT	FRDC ROLE	OUTCOMES
Advancing Australia's seaweed farming industry	Government	An allocation of \$8.1 million from the Federal Government with the potential for a further \$2 million investment leverage to assist in emissions reduction from the livestock industry and further develop the Australian seaweed industry	Administer and partner in the investment	Reduction of livestock emissions with the growth of a seaweed aquaculture industry
Global Ag-tech Ecosystem (GATE)	Government	The GATE is collaborative initiative to fast-track adoption of agricultural R&D to increase productivity.	Participant to promote increased adoption of R&D to increase productivity	Fishing and aquaculture is better able to uptake ag-tech as a key pathway for growth
Native Fish Recovery Strategy	Government	Murray-Darling Basin Authority	Enable discussion and collaboration on issues of shared interest regarding recovery of inland fisheries	Healthy native fish communities within connected catchments
National Marine Science Committee	Government	An advisory body promoting co-ordination and information sharing between Australian Government marine science agencies and across the broader Australian marine science community.	Partner	Develop Australia's Blue Economy

COLLABORATION	TYPE	ABOUT	FRDC ROLE	OUTCOMES
Drought and Innovation Hubs	Government	Part of the Australian Government's \$5 billion Future Drought Fund. They will provide networks for researchers, primary producers, community groups and others to work together to enhance drought resilient practices within their region. This focus on collaboration will make agricultural research useful and accessible, increasing innovation and commercialisation opportunities	FRDC has been engaging with Hub leads around Australia to explore opportunities for collaboration	Leverage benefit for fishing and aquaculture stakeholders and prevent duplication
Alternate Gears Partnership	Government and private sector	A \$9 million partnership to develop options for inshore fisheries that previously utilised gillnets	Collaborate with Queensland Department of Agriculture and Fisheries and industry	Development of alternate and novel harvest technologies for inshore fisheries
Centro Task Force	Government and private sector	A coalition to develop a business model to underpin a cross-jurisdictional management plan to tackling the varying challenges presented by long spined sea urchin	Partner	Establish a 5-year business plan for collaborative management of long spined sea urchin
Snapper Science Program	Government and private sector	A collaborative \$5 million program of work to reverse the depleted status of snapper stocks in South Australia	Funding partner with SA Government and member of the cross sectoral stakeholder working group	Recovery of the South Australian snapper resource

COLLABORATION	TYPE	ABOUT	FRDC ROLE	OUTCOMES
Global Sustainable Seafood Initiative	Government and private sector	Public-private partnership on seafood sustainability with 90+ stakeholders' industry-wide	Collaborate with participants to drive sustainable seafood outcomes.	Align global efforts and resources to address seafood sustainability challenges
High Level Panel, for Sustainable Ocean Economy	International Government	Collaborative commitment of 14 nations to build momentum for a sustainable ocean economy in which effective protection, sustainable production and equitable prosperity go hand in hand	Contribute towards implementation of action agenda	Building momentum towards a sustainable ocean economy, where effective protection, sustainable production and equitable prosperity go hand in hand
International Coalition of Fisheries Associations	International Government and private sector	Coalition of the national fish and seafood industry trade associations from the world's major fishing nations, who collectively harvest >85% of world's seafood	Collaborate to develop shared approach on issues relevant to the long-term sustainable use of living marine resources	Global collaboration on key strategic issues for the benefit of global food security and prosperity
United Nations – Decade of Ocean Science for Sustainable Development	International Government	The United Nations Ocean Decade is a global initiative spanning from 2021 to 2030, aimed at galvanising international efforts to conserve and sustainably use the ocean. It focuses on advancing ocean science, fostering innovation, and enhancing collaboration to address ocean-related challenges and achieve the Sustainable Development Goals (SDGs)	Collaborate to develop shared approach to conserve and sustainably use the ocean	Advancing ocean science, foster innovation, and enhance collaboration

6.6 PORTFOLIO DIMENSIONS AND BALANCE

FRDC's investment approach focuses on collaboration, innovation, and addressing national problems in the fishing and aquaculture sectors. FRDC invests in a portfolio of RD&E that balances risk and potential return, although it appears that the risk appetite is low. The Annual Report 2022-23 shows FRDC's investment being spread 2.78 per cent in high-risk projects, 40.01 per cent in medium-risk projects, and 57.21 per cent in low-risk projects. There was some commentary that the priority setting that is dominated by industry and the open call process potentially biases against blue sky R&D (high-risk) opportunities. We note though that FRDC is currently investing in climate resilience and alternative fuel and energy solutions, as well as supporting the implementation of Australia's strategic plan for Aquatic Animal Health, and development of a national agrifood data exchange and catalogue. All of these should be considered as more strategic investments. It seems surprising therefore that the Annual Report 2022-23 states that FRDC invests nearly 98 per cent of its funding in applied R&D and only 2 per cent in basic R&D.

One of the criticisms of all RDCs is that they tend to invest more heavily in shorter-term projects. This does not seem to be the case for FRDC where 52 per cent of investment is in projects with a duration of three years or more, and only 13 per cent in short-term (18 months or less) projects. Longer-term investment is attractive to those R&D institutions that are trying to maintain capacity and capability. More importantly, it recognises that many major challenges require long-term investments to solve.

An emerging challenge for FRDC is the balance of investment across the four sectors. This was raised frequently in stakeholder interviews. There is at least a perception among some wild catch and recreational fishers that investments favouring aquaculture are increasingly being prioritised over their sectors in investment allocations. The aquaculture sector has undergone rapid growth (see section 3.1), giving it greater resources and a 'competitive advantage' in influencing R&D and advocacy. There is a valid argument that, as aquaculture is now the largest sector, it should receive the greater share of R&D investment; a counter view is that the rise of aquaculture was partially subsidised by the financial contributions of wild catch and that some rebalancing is reasonable. FRDC will need to continue to be highly transparent in its reporting of financial expenditure, and to facilitate ongoing conversations about future investments.

Both wild catch and recreational fishers believe that investments in capacity and capability building in their sectors is fundamental to achieving better RD&E investment identification and allocation.

6.7 MANAGEMENT OF INTELLECTUAL PROPERTY AND COMMERCIALISATION

The SFA Guidelines refer each RDC to the RDC Knowledge Transfer and Commercialisation Guide, a document prepared in 2021, which sets out guiding principles '*...to maximise opportunities and benefits of R&D for Australian agricultural industries and the broader Australian community*' in knowledge transfer and commercialisation. The guide supports the SFA Guidelines. There are 21 principles including (for example) an expectation that the most appropriate commercialisation pathways will be selected and that platforms such as grow^{AG} and evoke^{AG} will be supported.

FRDC reports against the KPIs of the SFA Guidelines in its annual reports. Several of these KPIs are relevant to commercialisation, including the number of projects on the grow^{AG} platform. More broadly, FRDC's

commercialisation management appears to be well aligned with the principles of the Knowledge Transfer and Commercialisation Guide.

FRDC has a formal intellectual property (IP) management policy that is available from the FRDC website. FRDC recognises five forms of intellectual capital: know-how, data, legal rights, moral rights, and First Nations cultural rights and traditional knowledge. These forms of knowledge can be converted into beneficial outcomes. The policy states that FRDC is committed to identifying, protecting, and managing IP rights arising from its R&D investments. By nature, FRDC takes a defensive approach to IP management recognising that a significant proportion of its investments do not generate materials that are commercially sensitive. For the most part IP is allocated as part of each project funding agreement, with FRDC usually assigning commercialisation rights to the researcher. Ownership and rights of project outputs are contractually managed to support adoption and mitigate risks.

However, the policy does state that FRDC will add IP to its IP management framework when it is considered necessary for leveraging adoption, maintaining quality control, or protecting brand and culture. FRDC reserves the right to request copyright assignment and purchase IP rights arising from funded projects.

FRDC is a member of the RDC Knowledge Translation and Commercialisation Group.

6.8 EXTENSION AND ADOPTION

Communication and extension activities are crucial for disseminating R&D outputs and enabling change through the uptake of knowledge and innovation. Extension of R&D outputs and other types of innovation is, in some ways, a different proposition for FRDC than it is for many other RDCs. A substantial proportion of FRDC's R&D output has an inherent adoption pathway as it influences government policy, such as that pertaining to the management of specific fisheries or via projects supported under IPAs where adoption to a large degree is facilitated by direct industry ownership of the outcomes. However, there are R&D products that come with the customary adoption difficulties that other RDCs encounter.

The previous performance review recommended that '*FRDC should strengthen its approach to extension, possibly by creating a specific position to oversee or coordinate extension across the organisation*'. A review of extension was commissioned in conjunction with a review of FRDC's partnership models in 2019. That study recommended that FRDC develop a well-structured and systematic approach to extension and adoption, including the appointment a dedicated manager and the creation of coordinated extension packages rather than the piecemeal extension of individual project outputs, with a focus on optimising adoption.

The response of FRDC to that review is probably the biggest change that FRDC has implemented over the current review period. At a fundamental level, FRDC has adopted the concept of 'Theory of Change' (TOC) as a principle underpinning its activities. A TOC essentially describes the pathway by which people believe beneficial change will be achieved. It is similar to program logic, and is a powerful tool for designing, monitoring, and evaluating a particular set of interventions to drive change. The application to extension and adoption is obvious.

Structurally, and in addition to appointing the specialist adoption manager suggested in the previous performance review, FRDC choose to invest in dedicated extension officers based in key centres in each state and territory. The extension officers form a network of highly skilled and respected people who serve as strong

intermediaries between FRDC and stakeholders whilst also offering the opportunity for advocacy and delivery of key FRDC R&D outcomes.

The creation of the EON, which is managed through the stakeholder engagement team, was highly praised by stakeholders interviewed for this review. A key success factor is the calibre of the individuals appointed. Each extension officer has a strong fishing sector background and is well connected within the jurisdiction that they serve. The EON has already established itself as the conduit between FRDC and many of its key stakeholder activities. It provides the opportunity for information push to stakeholders whilst also providing a much-needed access point for intelligence and information gathering from the regions. That knowledge will be essential in future planning activities.

Whilst it is undeniable that the EON has created a significant momentum shift for FRDC in extension and adoption, there are some concerns that expectations may exceed the current capacity of the single appointments within each of the jurisdictions. Obvious areas for concern include the number of meetings attended, expectations around managing and facilitating committees and groups, capacity to reach stakeholders that are currently not engaged and time for information gathering and distillation. FRDC needs to ensure both extension officers and stakeholders are clear on what the roles and responsibilities of the EON are, and are not, to ensure priority activities are being addressed. The important first step here will be to complete the development of the of Communication, Engagement and Extension Strategy and Extension Annual Activity Plans (see section 7.1).

Recommendation 3. FRDC should clearly define and communicate, internally and externally, the scope of Extension Officer Network activities to ensure extension officers focus on agreed FRDC transformation areas.

6.9 CAPACITY AND CAPABILITY BUILDING

A key priority for FRDC is targeted investment in the development of capability and capacity across all sectors of fishing and aquaculture. FRDC has invested in the development of a program plan for this priority, which is supported by its own advisory committee (the Capability and Capacity Building Steering Committee). The plan focuses on building capability and capacity in the fisheries and aquaculture sectors through investments and partnerships. It aims to attract and retain great people, drive meaningful change through collaboration, and nurture diverse people to navigate uncertainty and thrive. The plan includes initiatives to determine workforce needs, provide tools and resources for support, and promote innovation and learning. The plan contributes to the National Fisheries Plan goal of ensuring a skilled and engaged workforce by 2030. The ultimate outcome is to ensure that by 2030, the fishing, aquaculture, and seafood community has access to a skilled and engaged workforce, leading to high job satisfaction.

This plan also includes a detailed TOC framework, which provides a well-considered plan for achieving workforce and capability needs in the fishing and aquaculture sector. The initiatives funded under the plan include research on future workforce planning and workforce capability framework, an online seafood careers platform (SeaWork with SIA), attracting the next generation, managing change, development bursaries and

scholarships, 'turning the tide' (which focusses on key initiatives such as connections, mentoring and Women in Seafood etc), and learning opportunities for leaders.

Our interviews indicated that the capacity and capability plan is held in very high regard and seen as an important enabler for most partners. Several interviewees had been involved in training and development activities and believed that exposure had led to greater outcomes for their sector.

6.10 MONITORING AND EVALUATION

FRDC has a very detailed and thorough Monitoring and Evaluation (M&E) Framework for the period 2020-2025. The framework identifies seven elements of performance and nicely describes an 'input to impact' cycle. The framework highlights the need for alignment with national priorities and SDGs, as well as the importance of collaboration and value for stakeholders. It has a dedicated section on FRDC's performance reporting and impact assessment, including the KPIs, reporting requirements, and the establishment of a digital performance reporting dashboard.

The framework includes targets and KPIs aligned to the KPIs set out in the Guidelines for SFAs. These are reported against the in the annual report (see section 4.5).

Whilst the framework itself is very good, it does not appear to be embedded in the R&D Plan / AOP / annual report cascade. Also, it does not appear that there is a formal reporting of progress against the M&E framework to the Board. FRDC should consider using the framework more effectively to measure and promote performance and ensure that the Board is informed of annual progress.

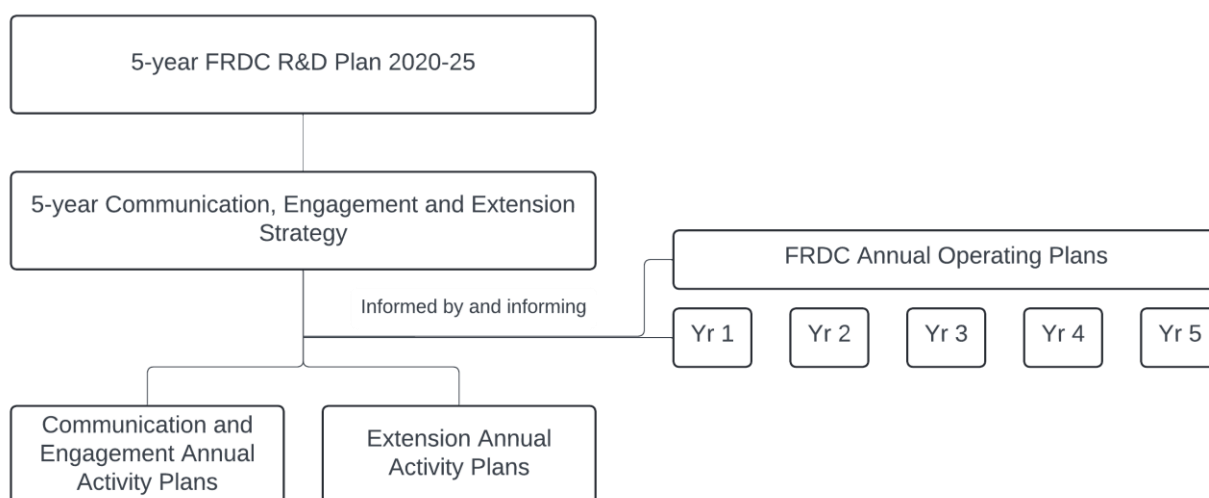
Evaluation frameworks also exist at program level. The review was availed of the M&E plan for the capability and capacity building investment program. That plan is also very detailed with a clearly defined table of priorities, outcomes, sources of data and responsibilities. Notably, though, the plan does not specifically align with the structure and outcomes of the overall M&E framework. This should be looked at by FRDC. Further commentary on M&E is provided in section 8.

7. STAKEHOLDER ENGAGEMENT

7.1 ENGAGEMENT PLANNING

Effective engagement and consultation is a core priority for FRDC. The first performance principle of the SFA is *‘to engage stakeholders to identify RD&E priorities and activities that provide benefits to the industry.’* The Guidelines for SFAs refers to the ‘Best Practice Guide to Stakeholder Consultation’ which lists guiding principles for all RDCs and then describes *‘...what good consultation looks like’* specifically for FRDC. The FRDC-specific section is a reasonably brief summary of RDC’s various processes, activities, publications and communications.

FRDC also has a far more detailed Communication, Engagement and Extension Strategy, a subsidiary document to the R&D Plan 2020-25. (The current version of the strategy was released in late 2023 and covers the period through to the end of the current R&D plan, with the intention that a full five-year strategy document will be produced to support the next R&D plan.) A Communication and Engagement Annual Activity Plan, and Extension Annual Activity Plan, both informed by and informing the AOPs, would then be developed each year. This is shown in Figure 10.



Source: Adapted from Communication and Engagement Strategy 2023, p. 4

Figure 10: Communication, Engagement and Extension Strategy planning framework

There is a Communication and Engagement Annual Activity Plan 2023-24 but no corresponding extension plan as yet. It is important that the extension plan (and accompanying component of the strategy) be developed so that there is clarity on what activities the extension team will be prioritising each year and how they will monitor performance. The strategy and plan for extension will be a vital first step in meeting recommendation 3 of this review (section 6.8).

The engagement strategy and the annual plan for 2023/24 are very well-considered documents. The strategy sets out what FRDC is trying to achieve through its stakeholder engagement, and broadly 'how', and the team responsible for delivery. The annual plan then describes, in some detail:

- ✦ Objectives – planned outcomes and overarching messages to be delivered;
- ✦ Who the stakeholders are (internal and external);
- ✦ Team responsibilities;
- ✦ Specific activities to be undertaken, with performance measures against each; and
- ✦ Key initiatives for the year – such as, for 2023/24, developing a 'future-proof' brand and reputation strategy, and enhancing the tools for a digital-first approach.

7.2 STAKEHOLDER SURVEY

FRDC has a very strong process for ensuring that it is aware of stakeholder sentiments and how they are changing. The primary vehicle for collecting this information is the annual stakeholder survey. In conducting the stakeholder survey, FRDC has followed a strict and standardised methodology using a consultant with extensive experience in survey design and analysis related to RDCs. Notably, the survey's primary focus has shifted to enable FRDC to gather vital information on present and emerging problems. In 2023 it also specifically sought feedback on the performance of the EON. The survey does, however, also contain recurring questions that offer valuable longitudinal analysis of FRDC's performance. The survey findings are disclosed in public reports that appear on the web and via the annual stakeholder planning workshop and annual reports. The survey does provide a very transparent assessment of FRDC.

The December 2023 stakeholder survey prepared by Intuitive Solutions provided performance assessment from three target groups being wild catch and aquaculture (n=221), partners (state and federal including fisheries management; n=125) and the research community (n=90). Headline results include:

- ✦ There was a cautious optimism about the future of fishing and aquaculture amongst the stakeholders surveyed.
- ✦ There is a challenge in ensuring a clear understanding of FRDC's role and responsibilities, as some stakeholders have incorrect assumptions about what FRDC does. Approximately 33 per cent of stakeholders recalled at least one incorrect role or responsibility. This can lead to dissatisfaction among stakeholders. It also confirms that stakeholders think FRDC has broader responsibilities than it actually has.
- ✦ Satisfaction levels among wild catch and aquaculture stakeholders were lower compared to other stakeholder audiences (41 vs 58 per cent). The wild catch and aquaculture group showed significantly lower utilisation of FRDC services, interaction with the EON, and engagement with FRDC social media content. There is a need to increase awareness and engagement among this group to improve satisfaction levels.
- ✦ Most stakeholders have used or are aware of FRDC services, and there are positive outcomes reported from utilising these services.

- ✚ Most respondents expressed satisfaction with the financial contributions from industry and government to FRDC and their wise investment for the benefit of the fishing and aquaculture sectors and the Australian community.
- ✚ Respondents perceived that RD&E activities have had a positive impact on various areas for the fishing and aquaculture sectors, such as improving best practices, supporting growth, and enhancing community trust.
- ✚ Most respondents expressed satisfaction with FRDC in terms of providing credible information, communicating plans and future strategy, engaging with stakeholders, allocating funding, adding value to interests, and working with relevant parties to address important issues.
- ✚ Notably, stakeholders who are engaged with FRDC and have access FRDC services (above 70 per cent) reported outcomes such as adoption of R&D, increased knowledge, new thinking or ideas, and communication of R&D to others.
- ✚ There were encouraging signals across the three target audiences that FRDC services are leading to changes in practices and increased knowledge among stakeholders.
- ✚ Most respondents (55 per cent, 74 per cent and 67 per cent respectively across the three target groups) agreed that FRDC is transparent in how it communicates the impacts of the R&D it has supported.
- ✚ The EON has gained traction, with more stakeholders reporting awareness and interaction with the EON. There are positive impacts reported because of these interactions.
- ✚ Most respondents were aware of and/or involved in FRDC sponsored Capability and Capacity Building activities and expressed satisfaction with the services provided by FRDC.
- ✚ A substantial proportion of respondents (between 38 and 67 per cent of the three target groups) participated in FRDC R&D extension events, such as conferences, face-to-face meetings, webinars, and networking events.

7.3 GENERAL COMMUNICATIONS

FRDC has a range of general communications vehicles. The FRDC website provide access to corporate information, research reports, sector news and events, and so on (another website, Fishfiles, is a consumer-facing website owned by FRDC that provides information on topics such as seafood species, nutrition, recipes, sustainability etc). The FRDC corporate website has been significantly upgraded since the last review.

FRDC also published two email newsletters. FRDC News is published monthly and provides relevant information across a range of issues, activities, developments, and research, aimed at all stakeholders. FRDC also publishes FRDC Update on a quarterly basis. Update is targeted more at the level of representative organisations, industry associations, and government, and is used as an operational update at meetings of the Australian Fisheries Management Forum, the National Marine Science Committee and so on. It is also used to keep staff updated on key issues.

The email newsletters replace the hard copy FISH magazine which was published quarterly until June 2022. The stakeholder engagement strategy cites research indicating that digital formats are the preferred means by which most stakeholders access information, and 'digital first' is one the seven key initiatives for 2023/24. Nonetheless, some stakeholders expressed disappointment with the loss of FISH, preferring the hard copy format over digital.

FRDC is also very active on social media, utilising Facebook, Instagram, LinkedIn, and YouTube platforms.

The rotation of Board meetings around the country, with attendant functions for local stakeholders and visits (see section 4.3), is also an important engagement mechanism.

7.4 ENGAGEMENT WITH REPRESENTATIVE ORGANISATIONS

There are strong relationships between the three Ministerially-declared representative organisations (see section 6.2.2), as well as the IRG, and FRDC. Our interviews indicated that the MD, the GM RD&I, and senior program managers of FRDC work closely with the four representative organisations and include them as part of the development and review process of the strategic R&D plan and the annual planning workshop. Chairs and chief executives of representative organisations spoke highly of the FRDC engagement, and acknowledged the time and resources invested by FRDC in developing effective working relationship with each of the bodies.

FRDC established the IRG to provide strategic and program-level advice on fisheries and aquaculture research (see section 6.2.2). In 2022 FRDC commissioned a review of the IRG to examine its operational, strategic, and jurisdictional context and its role in the evolving Indigenous fishing sector.¹⁴ The review identified key challenges faced by the IRG including limited resources, difficulty engaging with the wider commercial fishing industry, and variable adoption of research findings. Notably the review also highlighted the problem of attraction of new capable talent. Our own interviews confirmed that finding Indigenous people with time and capacity to engage with RD&E consultation is very difficult and often multiple stakeholder workshops do not suit Indigenous peoples' engagement needs.

Recommendations of the review include collaborating with relevant agencies and stakeholders to design a suitable representative framework, improving deliberative processes and recordkeeping, and exploring the establishment of a specific Indigenous fishing representative body.

Stakeholders expressed uncertainty about the future direction of the IRG and a desire for FRDC to communicate if, and how, it intends to act on the Barnett report.

Recommendation 4. Progress against the Barnett review of the Indigenous Reference Group needs to be articulated and, where appropriate, any recommendations implemented by FRDC.

7.5 ENGAGEMENT WITH RD&E PROVIDERS

It is notable that within the annual stakeholder survey, FRDC recognises the importance of relationships with the research community (which includes universities, government fisheries organisations, further education

¹⁴Australian Venture Consultants: Independent Review of the Indigenous Reference Group. FRDC April 2023

organisations, international research organisations and private-sector research providers) and deliberately seeks responses from this audience. Notably, the Communication and Engagement Annual Activity Plan 2023-24 describes creation of a RD&E engagement strategy as a key initiative. The objective is to improve research partner relationships to ensure 100 per cent attribution of FRDC investments, including raising awareness of investment portfolio outputs and outcomes, and clearly communicating information about new investments. This strategy is in the early stages of implementation, however activities such as direct mailing curated content to project investigators and holding investment call webinars will be beneficial and valued.

For this review we conducted several interviews with a range of RD&E providers from CSIRO, state agencies, universities, and a few private companies. All acknowledged FRDC's very strong engagement with them. Key features of partnerships included openness, respect, effective milestone management, approachability, flexibility, good communications, and strong personal relationships. Most organisations had some link to the annual planning workshop and RAC process, so they felt as though they were well informed.

Whilst the RD&E community has an excellent relationship with RD&I within FRDC, it appears to have little awareness of or contact with the S&I team. The visibility of the functionality of the S&I team needs to be improved among target partners, including the RD&E community, agtech, and entrepreneurs.

7.6 ENGAGEMENT WITH RDCS AND OTHER FUNDING AGENCIES

As described in section 6.4, FRDC is a strong collaborator with the other RDCs, through AIA, CRRDC, and other joint investments such as (previously) the RRFP and CRCs.

7.7 ENGAGEMENT WITH GOVERNMENT

The relationship between government and FRDC and government is extremely strong. FRDC meets with departmental representatives at least twice per year in an annual SFA performance meeting and a consultative meeting. The Chair, the Deputy Chair or a nominated board representative, the MD and all GMs from FRDC are in attendance. These meetings are reported to provide the department with an open and honest account of FRDC's progress towards its strategic objectives.

DAFF representatives regard FRDC as a high performing organisation that provides strong support for the fisheries and aquaculture sectors. FRDC is the first point of reference for key ministerial objectives. Notable engagement points include the National Fisheries Plan working groups, seaweed investments, Indigenous engagement, biosecurity, and aquatic animal health. The latter three were noted as topics on which FRDC provides significant benefit to government. DAFF officers acknowledged the strong presence of FRDC staff in all sectors and that they are well informed and respected.

7.8 ENGAGEMENT WITH LARGE CORPORATES

Through the stakeholder consultation phase, a small number of interviews (three) were held with representatives of larger corporate participants in the aquaculture sector. These companies tend to operate outside of the traditional FRDC engagement networks, although they are currently involved with some of the industry IPAs. In general, they receive most of their information and therefore decision-making advice from

either international consultants or from in-house expertise. They are aware of the EON, but take the view that information provided by this network may be more generic than what they require.

Interviewees indicated that they are interested in the outcomes from the more strategic and innovative R&D which the large corporates are likely to be able to implement earlier than smaller-scale businesses. Examples include automation, blockchain, genomics and remote telemetry. The large players often have more funds available for R&D than those matched through FRDC. They are very focused on return on investment and IP. These are challenging considerations for FRDC when large companies are owned by overseas interests.

In other industries, RDCs (Dairy Australia, Grains Research & Development Corporation, MLA, Cotton Research & Development Corporation (CRDC) and Australian Wool Innovation for example) have completed stakeholder profiling and segmentation – aggregation of stakeholders into groups with common needs – to underpin targeted R&D and sometimes ‘key account’ functions to ensure the needs of large corporates are understood and met. Finnovation is one model that would suit this type of investment partnership (see section 6.4).

FRDC should consider the development of a needs analysis for stakeholders of differing scale, business ownership type and stage of maturity that should include mechanisms for identifying and implementing R&D with large corporates. FRDC may also need to consider a different way of measuring adoption and impact of these investments.

Recommendation 5. FRDC should consider the development of a segmentation strategy (particularly within aquaculture) that allows more customisation of delivery of information and R&D outcomes depending on the aspirations, capacity, and capability of individual companies or organisations.

8. DELIVERY OF BENEFITS

8.1 INTRODUCTION

The Performance Principles of the SFA explicitly require FRDC ‘...to demonstrate positive outcomes and delivery of RD&E (and marketing) benefits to Levy Payers and the Australian community in general...’. Stakeholders of RDCs such as FRDC judge the value and benefits from their respective RDC in many ways which are both subjective and objective. Even so, RDCs should make every effort to provide objective measures of their investments that are consistent and based on robust methodology, and communicate these to stakeholders regularly in clear, easy-to-understand formats.

This is even more important for FRDC than for other RDCs. As noted in section 4.7, the Australian aquaculture and fishing sectors use what is known in economic terms a ‘common good’, where the resource (Australian marine and inland waters) is shared with others. This contrasts with other RDCs which work with industries in a farm environment where the resource (e.g. the land) is held privately. As a result, FRDC should be particularly focused on establishing objective measures of performance of its investments and communicating the results clearly to all its stakeholders, in particular to the Australian community which collectively owns the common-good resource.

RDCs, including FRDC, depend on measures of value and impact through both quantitative economic measurement and qualitative assessments. This value and impact go beyond economic benefits and include impacts which cannot have a dollar estimate attached and notably include environmental and social benefits.

To demonstrate the benefits to stakeholders from its investment of levy funds, FRDC commissions independent impact assessments of its RD&E programs. These impact assessments consider the economic, social, and environmental outcomes of selected FRDC projects (called triple bottom-line assessment). FRDC can report the results to stakeholders, including industry sectors, levy payers, government, and co-investors. The impact assessments could also provide important input to inform improvements in FRDC’s ongoing investment program.

8.2 EX-ANTE EVALUATION OF PROSPECTIVE INVESTMENTS

FRDC uses a rigorous set of procedures to evaluate project proposals for investment. It does not, however, use a formal *ex-ante* benefit-cost analyses (BCAs) as part of this project evaluation process. FRDC management considers that such BCAs would lack firm data for use in assumptions and therefore the assumptions associated with each evaluation would be too subjective. The review team notes that several other RDCs, including Australian Pork Limited (APL), Forestry and Wood Products Australia and Wine Australia, use *ex-ante* BCAs for assessing project applications and significant potential investments.

Ex-ante BCAs provide significant advantages, particularly as they provide a systematic consideration of both the costs and likely benefits from a project, even if it is to simply list the benefits against the likely project cost. The review team acknowledges that the data required is often uncertain and that the analysis process imposes a cost. In our opinion, though, a system of *ex-ante* BCAs to support investment decision-making for some components of FRDC’s investment would be a positive addition to its current project application assessment processes.

Recommendation 6: FRDC should consider using *ex-ante* benefit-cost evaluations for some components to optimise allocation of investments across the RD&E portfolio.

8.3 EX-POST IMPACT ASSESSMENTS OF RD&E

Over the period considered for this independent review, FRDC had annual impact assessments prepared by independent consultants Agtrans Research and ACRE Economics to report against the 2015-20 and the 2020-25 R&D Plans. The assessments provided input to FRDC's annual reporting to the Australian Government and reporting to stakeholders.

The impact assessments reports were also FRDC's contribution to the impact and performance assessment of RDCs that was previously compiled by the CRRDC.¹⁵

The review team notes that CRRDC now operates in a very limited manner and no longer compiles a combined report on the impact assessments prepared by each RDC. This is a very disappointing development which threatens the continued objective assessment and measurement of the RD&E investment made by RDCs. This may, in turn, result in stakeholders (including the responsible Federal Minister) questioning the importance and value of RDCs as this objective, independent measurement of the benefits arising from investment by RDCs is no longer available.

FRDC contracted Agtrans Research to prepare annual impact assessments for a five-year period beginning in July 2017. After the completion of this five-year contract in 2022, FRDC contracted ACRE Economics¹⁶ to prepare the impact assessment in 2023. Table 4 lists the four sets of impact assessments prepared since the last performance review carried out in 2018. The table also provides the date of delivery of the impact assessment, the year of the final deliverable for projects included in each impact assessment, number of projects reviewed each time and the method of project selection, the total value of FRDC investment in the selected projects and the proportion of the total RD&E spend in the population for each assessment, as well as the consultant that prepared each assessment.¹⁷

As can be seen, the projects selected for assessment each year between 2019 and 2022 accounted for between a quarter and a third of the total FRDC expenditure on the relevant RD&E project population. In the most recent assessment, the number of projects and the proportion of RD&E expenditure was much lower

¹⁵ Agtrans Research, 2019

¹⁶ The principal of ACRE Economics was a principal researcher at Agtrans Research & Consulting for the previous FRDC impact assessments

¹⁷ Restrictions imposed during the Covid pandemic in 2020 and 2021 meant that the second impact assessment covering the investments to 2018/19 was delayed

than in previous years. As well, the projects were selected by FRDC, rather than being a selected using stratified random sampling.

Table 4: Impact assessments prepared for FRDC: 2019 to 2023

DATE ASSESSMENT DELIVERED	YEAR OF FINAL DELIVERABLE FOR PROJECTS	NUMBER OF PROJECTS	FRDC INVESTMENT ¹ (% OF FRDC RD&E INVESTMENT ²)	PREPARED BY
October 2019	2017/18	20 (randomly selected)	\$4.01 million (31%)	Agtrans
November 2021	2018/19	20 (randomly selected)	\$5.81 million (25%)	Agtrans
August 2022	2019/20	20 (randomly selected)	\$5.30 million (30%)	Agtrans/ACRE
November 2023	2020/21	6 (FRDC-selected)	\$0.69 million (5%)	ACRE

Source: Agtrans Research & Consulting, ACRE Economics and FRDC annual reports

Notes:

1. Nominal \$
2. Total FRDC investment in the population of projects with a final deliverable in that year, excluding those projects funded under IPAs

One further point to note from Table 4 is that not all of the RD&E investment by FRDC is included in the project population from which projects are selected for impact assessment. For example, projects conducted under the IPAs are not included in the initial project population for random selection and are not subject to impact assessment. Therefore, the percentage share of FRDC's RD&E investment cited in the table is an overstatement of the actual proportion of the investment by FRDC on all RD&E projects.

In 2022/23, FRDC had committed investment of \$7.97 million and potential new investment of \$13.16 million on projects under the various IPAs.¹⁸ Despite this expenditure, there is no triple bottom-line impact assessment prepared on these investments. Based on interviews conducted by the review team, organisations and industries associated with at least some of the IPAs would welcome formal impact assessments being prepared on investments in the individual IPAs to understand the return on investment. It would also be good practice by FRDC to round out more fully the assessment of its RD&E investment program. FRDC management advises that such impact assessments are available to the IPAs. It appears, however, that the stakeholders that own the IPAs are unaware of this.

¹⁸ AOP 2022-23, pp. 14 and 15

Recommendation 7: FRDC should encourage Industry Partnership Agreements to invest in impact assessment on a regular basis to inform their future investments.

8.4 MEASUREMENT METHODOLOGY

The methodology followed by Agtrans Research and by ACRE Economics for the impact assessments conducted for FRDC is sound and robust, producing conservative estimates of the economic benefits of projects. The consultants followed a clear, set routine in conducting the impact assessments in line with the guidelines from the CRRDC. For the three impact assessments conducted in 2019 to 2022, the process for randomly selecting projects was thorough and in line with both CRRDC Guidelines and the DAFF Guidelines for SFAs. This was not the case with the impact assessments conducted in 2023.

Each of these annual impact assessments (and the two impact assessments which preceded these) were individual project assessments, with 20 projects randomly selected from across the full range of FRDC's five programs or outcomes. The review team has conducted a significant number of performance reviews of other RDCs and none of those RDCs have committed to impact assessments of as many as 20 projects each year. FRDC is to be commended for its commitment in preparing such extensive impact assessments.

FRDC's approach of doing an annual assessment of 20 randomly selected projects each year has the advantage of providing management and stakeholders with an annual track of the return on investment across the investment portfolio. As well, the reports from the impact assessments include an assessment of the returns for each of the five R&D programs.

Rather than a random selection of projects, some other RDCs, such as CRDC and APL, use a cluster approach where projects funded within a chosen R&D program or outcome are randomly selected for assessment. The assessments are done either at regular intervals or in one full assessment of all clusters towards the end of the R&D Plan period. The cluster approach has the advantage of providing a more in-depth review of performance for specific R&D programs or outcomes, in contrast to the approach used by FRDC.

Furthermore, doing impact assessments on 20 randomly selected projects across the full scope of FRDC's R&D program makes interpretation difficult. It also probably does not help with the communication of results, nor does it help to identify gains for different strategic areas / RD&E programs. Improved communication targeted at specific strategic areas / programs which would flow from a cluster approach would assist buy-in from stakeholders.

The project selection process for the assessment prepared in 2023 did not, however, align with the CRRDC guidelines. FRDC acknowledges that the selection process and the overall impact assessment, with a limited number of projects selected, was not ideal and will not be repeated in future impact assessments.¹⁹

¹⁹ Jennifer Marshall (Acting GM S&I), pers comm.

Recommendation 8: FRDC could consider changing to conducting impact assessments of projects using a cluster approach where projects from one of the five R&D strategic outcomes (or other clusters as appropriate) are randomly selected for assessment each year and on a rolling basis.

All of the individual project assessments for which reports were available to the review team are compared with a counter-factual: that is, what would have occurred if the project was not done. This acknowledges that the world does not stand still. In each case, the counter-factual is based on a subjective assessment of the likelihood that the outcomes of the project / cluster concerned would be achieved without FRDC investment.

Each of the assessments report on key economic investment measures: present value of benefits (PVB), present value of costs (PVC), net present value (NPV), benefit-cost ratio (BCR), internal rate of return (IRR) and modified internal rate of return (MIRR) for various time periods after the last year of investment (0, 5, 10, 15, 20, 25 and 30 years). Each assessment also reports on the sensitivity of the results to several key assumptions. In addition, each cluster report includes a table of confidence ratings (high, medium, or low) of the coverage of benefits and of the assumptions.

One issue with the impact assessments is that the comments provided about the distribution of benefits amongst industry sectors are simply a broad statement with each report noting that:

‘Private impacts from the investment in this project will accrue to commercial fishers and the supply chain. Supply chain beneficiaries will include fish cooperatives, wholesalers, fish processors, exporters, retailers, and consumers. The share of benefit retained by each member of the supply chain will depend on both short- and long-term supply and demand elasticities.’

While this statement is accurate, a more considered assessment of the distribution of the benefits through the supply chain (such as between the aquaculture and wild-catch sectors, wholesalers, processors, exporters, supermarkets, other retailers), that considers the supply and demand elasticities, would be more valuable. Commercial fishers (from both aquaculture and wild-catch sectors), wholesalers, processors, exporters and retailers are likely to be interested in the approximate portion of the impacts that may accrue to each sector. An example of such commentary can be seen in the AgriFutures Australia report ‘Impact assessment of investment in the AgriFutures Rice Program’²⁰.

Recommendation 9: FRDC should ask its impact assessment providers to provide more detailed commentary on the likely distribution of benefits from projects between sector and supply chain stages, notably aquaculture, wild-catch, recreational fishing, Indigenous, wholesale, processing, export, and retail.

²⁰ AgriFutures Australia 2021

We note that the previous independent performance review in 2018 made a similar recommendation.

8.5 DEMONSTRATED BENEFITS

8.5.1 RESULTS OF IMPACT ASSESSMENTS

Agtrans Research and Consulting and ACRE Economics provided a detailed report of each impact assessment by project as well as a summary report. The aggregate investment results for the projects funded by FRDC for each year of assessment are shown in Table 5. It should be noted that the results from the most recent assessment conducted in 2023 (last column, shaded in red) are not comparable with those of previous years because the sample was much smaller and was not random.

Table 5: Summary of annual ex-post evaluations of FRDC projects completed between 2018/19 and 2022/23

ECONOMIC MEASURE	YEAR OF ASSESSMENT			
	2019 ¹	2021 ²	2022 ³	2023 ⁴
Present value of benefits (\$m)	\$61.18	\$114.66	\$50.55	\$5.43
Present value of costs (\$m)	\$12.54	\$15.26	\$17.21	\$1.52
Net present value (\$m)	\$48.65	\$99.39	\$33.34	\$3.90
Benefit-cost ratio	4.88	7.51	2.94	3.56
Internal rate of return (%)	10.8%	59.8%	14.2%	13.1%
Modified internal rate of return (%)	1.6%	8.6%	8.2%	8.5%

Source: FRDC (August 2022), Evaluation of FRDC RD&E projects completed in years ending June 2016 to June 2020: 2019/20 Evaluations (Year 5) aggregate report, Agtrans Research in association with ACRE Economics

Total investment, lower bound estimate, 5% discount rate, 30 years

Notes:

1. Final population: 68 RD&E investments; 13 of 20 projects valued in monetary terms; results reported in 2018/19 dollar terms
2. Final population: 119 RD&E investments; 13 of 20 projects valued in monetary terms; results reported in 2019/20 dollar terms
3. Final population: 81 RD&E investments; 13 of 20 projects valued in monetary terms; results reported in 2020/21 dollar terms
4. Final population: 6 RD&E investments valued in monetary terms; results reported in 2022/23 dollar terms

Some of the projects could not be assessed in monetary terms each year as some of the benefits could not be measured, even though the projects delivered social and environmental benefits which were listed in each detailed report. In general, this was because there was a shortage of necessary evidence and data, a high degree of uncertainty about the impacts, the low importance of the impact or because projects were targeted

at capacity building. The number of projects that were valued in monetary terms each year are shown in the footnotes to Table 5.

As well, for many projects, there were environment and social impacts which were 'non-market', making them hard to value without considerable additional non-market valuation techniques. These environment and social impacts were listed in each detailed project report available to the review team.

In aggregate, the impact assessments show strongly positive returns on FRDC's investment. The aggregate BCR for the three assessments between 2019 and 2022 was between 2.94:1 and 7.51:1, a good result although FRDC does not have a target for a rate of return from its investments. While all the results were good, the aggregate BCR of 7.51:1 from the assessment completed in January 2022 was outstanding.

The results for the most recent and more limited assessment in 2023 were also positive, although they should be treated with some caution as the sample was small and self-selected by FRDC.

As not all impacts could be valued for all projects, these economic returns estimated each year are conservative and represent the base level of the return on investment.

Further detail by FRDC Research Program from the assessments conducted in 2019 to 2022 is shown in Table 6.

Table 6: Ex-post evaluations of 20 FRDC projects completed between 2017/18 and 2021/22 by Program

ECONOMIC MEASURE	RESEARCH PROGRAM				
	Environment	Industry	Communities	People	Adoption
2019					
Net present value (\$m)	\$12.48	\$28.36	\$0.95	\$1.31	\$5.55
Benefit-cost ratio	3.47	5.79	11.85	19.52	7.13
Modified internal rate of return (%)	NC	NC	NC	NC	NC
2021					
Net present value (\$m)	\$93.19	\$4.18	\$0.43	\$-0.11	\$1.71
Benefit-cost ratio	13.77	1.73	1.51	0.58	2.53
Modified internal rate of return (%)	11.4%	3.3%	2.4%	Negative	5.5%
2022					
Net present value (\$m)	\$0.22	\$30.70	\$1.35	\$0.81	\$0.27
Benefit-cost ratio	1.04	4.87	1.75	1.34	1.59
Modified internal rate of return (%)	5.1%	9.5%	7.1%	6.1%	9.8%

Source: Agtrans Research (August 2022), Evaluation of FRDC RD&E projects completed in years ending June 2016 to June 2020: 2019/20 Evaluations (Year 5) aggregate report, Agtrans Research in association with ACRE Economics

Total Investment, lower bound estimate, 5% discount rate, 30 years

NC = no unique solution

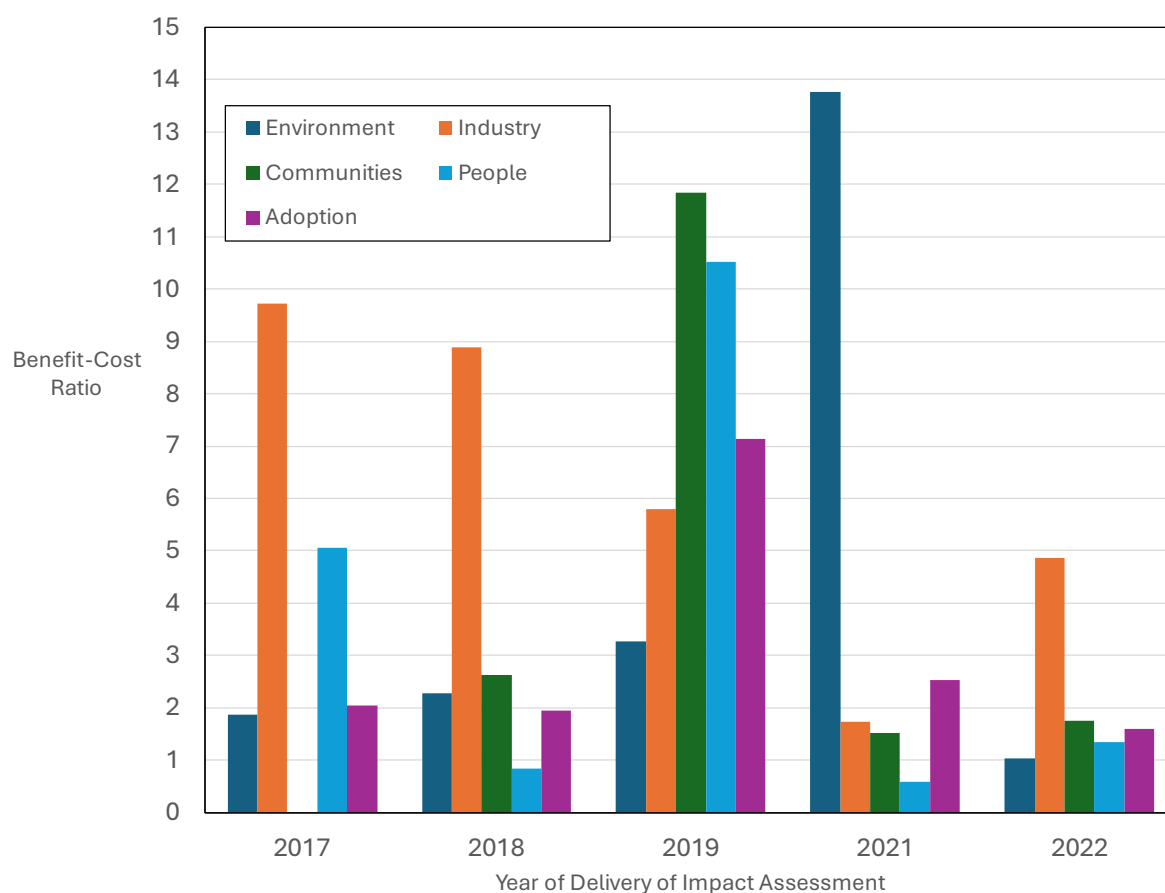
The consultants commented that comparison of the results by R&D Program across years should be done cautiously as the allocation of RD&E investments to a Research Program varied across the impact assessments. Nevertheless, the results show that the monetary returns by Research Program varied substantially from assessment to assessment. For example, the BCR for the People Program ranged from 19.52:1 to 0.58:1 (the latter being a loss on the investment). There was a similar but not as dramatic variation seen for the Communities Program.

The report from the most recent impact assessment that was conducted in 2023 does not include a breakdown by Research Program as there were insufficient projects selected for that assessment.

Projects included in the Communities and People Programs included a number of social benefits which could not be valued. Projects in the Environment Program also included a number of environmental benefits which could not be valued. These were listed in the detailed individual project reports that the review team has seen. Presumably, they were also listed in the detailed individual project reports that were not available to the review team. As an observation, because the fishing and aquaculture sectors use a common resource good (rather

than privately-held resource), there seems to be more non-market benefits arising from projects than for other rural industries that the review team has appraised.

Figure 11 shows the BCRs by Research Program for all five impact assessments conducted under the contract with Agtrans Research. The year-by-year volatility of the results is clear from this figure.



Source: Agtrans Research (August 2022), Evaluation of FRDC RD&E projects completed in years ending June 2016 to June 2020: 2019/20 Evaluations (Year 5) aggregate report, Agtrans Research in association with ACRE Economics

Figure 11: BCR by Research Program from impact assessments by year of delivery 2015/16 to 2019/20

The previous performance review in 2018 noted the problem of valuing the non-market impacts and recommended that FRDC conduct a project to assess willingness-to-pay studies of environmental attributes of fishery resources and externalities arising from aquaculture as input into future assessments of the environmental impacts of FRDC's Environment Program. In response, FRDC commissioned Agtrans

Research and NCEconomics to prepare a desktop literature review and compile relevant non-market valuation studies for use by FRDC in its annual impact assessments.²¹

The study produced a database of existing non-market valuation studies that should be a useful resource for future impact assessments/evaluations of fisheries and aquaculture RD&E investments. The study also provided an assessment of the major gaps in the available non-market valuations related to the environmental and social impacts from fisheries RD&E. These were:

- ⊕ Value of fisher satisfaction;
- ⊕ Contribution of fish habitat to carbon sequestration and storage;
- ⊕ Willingness to pay (WTP) for maintenance of biodiversity and/or ecosystem conservation;
- ⊕ Willingness to pay for fish welfare, particularly farmed fish;
- ⊕ Industry stakeholders' WTP for improvements to human health and wellbeing; and
- ⊕ Social equity and maintained or enhanced social capital for fishers and fishing communities.

The report recommended '*...that the FRDC periodically review available Australian and international non market valuation literature and update the non-market study database. This will ensure that impact valuation data remain current and valid to demonstrate the benefits of fisheries and aquaculture RD&E.*'

The intention, as expressed in the report, was that this study was the first phase, with a second phase to be conducted to address the gaps that were identified.

However, FRDC advised the review team that it had decided that the benefits from Phase II of the study would be insufficient to justify the expected significant expense.²²

Nevertheless, the performance review team notes that none of the impact assessments conducted since July 2019 (i.e. since the first phase of the non-market valuation project) refer to the findings or the existing non-market valuations in estimating the non-market benefits arising from projects being assessed. As a result, the impact assessments that have been done in the past two years continue to have gaps in valuation, particularly of social and environmental benefits arising from projects.

The review team considers that FRDC should again consider undertaking phase II of the study on non-market impact valuation for fisheries RD&E. It should also ensure that its provider of impact assessments in future refers to and uses the non-market valuations that are available, wherever possible. This will help in delivering against recommendation 7 concerning triple bottom-line reporting.

²¹ FRDC, Non-Market Impact Valuation for Fisheries RD&E – Phase 1. Report prepared by Agtrans Research and NCEconomics, July 2019

²² Jennifer Marshall (Acting GM S&I), pers comm.

8.5.2 RECOMMENDATIONS FROM IMPACT ASSESSMENT PROVIDERS

Agtrans Research made three separate recommendations to FRDC in each of the aggregate reports on the impact assessments in November 2021 and August 2022.

The recommendations in the November 2021 aggregate report were:

Recommendation 1: Economist input to future monitoring and evaluation processes

Recommendation 2: Improved communication of end-of-project requirements

Recommendation 3: Support for periodic collection of industry data and benchmarking studies

The recommendations in the August 2022 aggregate report (and repeated in the November 2023 aggregate report) were:

Recommendation 1: Develop, integrate, and implement an impact-specific monitoring and evaluation (M&E) framework

Recommendation 2: Improve communication of project-level M&E requirements

Recommendation 3: Develop an ex-ante impact assessment and CBA [cost-benefit analysis] framework/tool

Note that the second recommendation from each of the aggregate reports is essentially the same, while the first recommendation from each aggregate report has the same intent of ensuring measurable KPIs are included in the M&E Framework.

Advice from FRDC is that it has not implemented any of these recommendations.²³

The review team considers that the recommendations from Agtrans Research are sensible and worthwhile for FRDC to consider in detail and, preferably, implement. The first recommendation of the two aggregate reports reflects the review team's comments on the FRDC M&E Framework, as noted in section 6.10. The second recommendations of the 2021 and 2022 aggregate reports are related to comments made in the next section, while the third recommendation from the 2022 aggregate report echoes this review's recommendation 6 in section 8.2.

8.6 COMMUNICATING THE BENEFITS

Under the SFA's Performance Principles, FRDC is required '*...to demonstrate positive outcomes and delivery of RD&E benefits to levy payers and the community in general...*'. The results from the impact assessments conducted in the past four years demonstrate that FRDC's RD&E activities are delivering economic, social, and environmental value to the industry and to the wider community. This may not be evident to all in the industry, in part due to a lack of understanding about the benefit-cost methodology leading to scepticism about

²³ Jennifer Marshall (Acting GM S&I), pers comm.

the results. This is always a challenge for RDCs, so a focus needs to be on clear communication of the methodology and the results.

FRDC's communication of the results from the four impact assessments conducted since 2019 has been inconsistent.

FRDC has a section of its website under 'Governance and reporting' called 'Digital performance summaries'²⁴ which includes some of the impact assessments. Confusingly, there are separate pages under this heading titled 'Benefit/Cost Analyses' and 'FRDC project impact assessments – the benefits of research', both of which contain some of the impact assessment reports.

The 'Benefit/Cost Analyses' page has links to download aggregate reports on the assessments prepared for 2015/16 (delivered in November 2017), 2016/17 (delivered in October 2018), 2018/19 (delivered in November 2021) and 2020/21 (delivered in November 2023). The 'FRDC project impact assessments – the benefits of research' page has links to download all of the reports on the individual project impact assessments prepared for 2015/16 and 2016/17, but not for any of the recent impact assessments. The assessments prepared for 2017/18 (delivered in October 2019) and 2019/20 (delivered in August 2022) are not included anywhere on the website. FRDC should endeavour to have the full set of impact assessments in one easy-to-find location on its website, rather than the current incomplete collection in several locations. This is reflected in this review's recommendation 10 at the end of this section.

Having the reports (both the aggregate assessment reports and the individual project assessment reports) allows those inclined to access and read the results. These reports may be, however, difficult for the casual reader and layperson to read and understand. So, the location on the website could also have a short (around one page) summary of the key results for each aggregate assessment, written in non-technical language, as well as a relevant case study from each assessment to illustrate the monetary results as well as the unvalued impacts. Infographics work well for this type of content.

FRDC's annual reports have each year included at least summary results of the latest available set of assessments. Specifically:

- ✚ The Annual Report 2019-20 describes some detail of the impact assessments of a separate FRDC research project for each of the five FRDC Programs. It also includes a summary and aggregate results for the full assessment conducted in 2019.
- ✚ The Annual Report 2020-21 includes detail of the impact assessments of five separate FRDC research projects which were prepared in 2021. This was out of 13 projects which were assessed in 2021 for which monetary benefits could be determined. The aggregate results of the full set of the assessments were not included in the report.
- ✚ The Annual Report 2021-22 includes two-page summary of the results from the impact assessment done in 2022. This summary provides the high-level aggregate results and a brief explanation of the method. It also includes a table of the return-on-investment results for each of the 15 projects that were assessed. This two-page summary is in a discrete section towards the end of the text in the report.

²⁴ <https://www.frdc.com.au/digital-performance-summaries>

- ✚ The Annual Report 2022-23 has a one-page summary of the results from the impact assessment prepared in 2023, including a table of the return-on-investment data for each of the six project assessments. This one page is towards the end of the text in the report. The aggregate BCR of 2.98:1 is reported in the table on the Performance Principles from the SFA on page 13.

There is no other mention of the key aggregate results (such as the BCR) elsewhere in any of the annual reports, notably in the 'Key achievements' section at the start of each report. Furthermore, as FRDC does not have a target BCR from the impact assessments included in its KPIs, the BCR result is not included in the table in the annual report which summarises FRDC's progress against its KPIs.²⁵ Reporting of the results from the impact assessments conducted on FRDC's RD&E programs would be a useful addition to this summary table of progress against KPIs.

The review team has not sighted any other channels in which FRDC has reported the results of any of the impact assessments prepared since 2019. For example, there is no evidence of any reporting of the results from the impact assessments, even at a high level, to the annual meeting, at stakeholder forums or via FRDC digital newsletters and emails to stakeholders. Furthermore, the relevant manager advised the review team that, as far as they were aware, FRDC had not reported the results of the impact assessments in any other channels or forums.²⁶

While communicating the triple bottom-line results from the impact assessments to stakeholders provides challenges, some RDCs have been successful by providing case studies to explain the benefits to an individual company in the industry. A good example is the Annual Report 2021-22 of Sugar Research Australia, which provides clearly communicated case studies as part of its reporting on the results from the impact assessments conducted which were also compared with its target.²⁷ While this involves more than simply reporting a selected metric, such as the BCR, it provides interested participants in the industry a richer understanding of the benefits from the RD&E investment.

It is acknowledged that the full reports may be difficult for the casual reader and layperson to read and understand, but easy-to-read and short summaries should be made available on the FRDC website.

Recommendation 10: FRDC should report the aggregate results from its impact assessments to stakeholders using clear, simple language in its annual report (notably the benefit-cost ratio result in the key performance indicator table), in presentations to stakeholders, in communications to stakeholders and in a single, easy to find tab on the FRDC website. This should include case studies where appropriate.

²⁵ Although it is included in the table of on performance against SFA principles in the Annual Report 2022-23

²⁶ Jennifer Marshall (Acting GM S&I), pers comm

²⁷ SRA, Annual Report 2021-22, pp. 22 to 24

8.7 STAKEHOLDER PERCEPTIONS OF VALUE

FRDC, like many RDCs, commissions regular surveys to track stakeholder and partner satisfaction, and to gather feedback on issues such as quality and type of engagement by the organisation. Evidence for stakeholder perceptions of the value delivered by FRDC is available in the surveys carried out for FRDC in 2022 and 2023.²⁸ The stakeholder survey is described in more detail in section **Error! Reference source not found..**

Some of the key results relevant to perceptions of value for 2023 (compared with 2022) are summarised in Table 7.²⁹ The ratings indicate a generally positive reflection on FRDC, with albeit lower positive scores from respondents from the wild catch and aquaculture sector. There were some general improvements in the positive responses in all three sectors, although with some notable differences such as the mild weakening in satisfaction with FRDC services in the wild catch and aquaculture sector.

Stakeholder perceptions, as evidenced by interviews conducted for this review, were also positive. As noted in sections 7.3, 0, and 7.6, industry, research and government stakeholders all had high opinions of FRDC. Communication, engagement, and relationships were seen as the major strengths of FRDC and its staff.

²⁸ Intuitive Solutions 2022 FRDC Stakeholder Research, January 2023 and Intuitive Solutions 2023 FRDC Stakeholder Research, December 2023

²⁹ Due to a change in methodology and questions asked, the results for 2022 and 2023 are not comparable to surveys conducted in previous years

Table 7: Ratings of FRDC performance in the October 2023 survey

ATTRIBUTE	2022	2023
Overall satisfaction with FRDC services ¹		
Wild Catch & Aquaculture	55%	53%
Partners	73%	71%
Research Community	58%	63%
You/your organisation value(s) services offered by FRDC		
Wild Catch & Aquaculture	59%	63%
Partners	84%	84%
Research Community	80%	85%
Satisfaction that financial contributions to FRDC are being invested wisely and benefit the fishing/wild catch and aquaculture sectors and the Australian community ¹		
Wild Catch & Aquaculture	37%	41%
Partners	55%	58%
Research Community	56%	58%
Intend to make changes to practices because of outcomes from FRDC info, services or R&D projects over the last 3 years		
Wild Catch & Aquaculture	38%	42%
Partners	67%	66%
Research Community	55%	65%
'Agree' or 'strongly agree' that FRDC is transparent in how it communicated the impacts of R&D it has supported		
Wild Catch & Aquaculture	47%	55%
Partners	61%	74%
Research Community	62%	67%

Source: Intuitive Solutions, 'FRDC Stakeholder Survey' December 2023

Notes:

1. Proportion of stakeholders that were 'satisfied' or 'very satisfied'

9. IMPLEMENTATION OF RECOMMENDATIONS OF THE 2018 PERFORMANCE REVIEW

The recommendations of the 2018 performance review and our assessment of FRDC's response to those recommendations are listed in Table 8.

Table 8: Recommendations from 2018 performance review and FRDC response

RECOMMENDATION		PRIORITY	RESPONSE
1	Based on a new RD&E plan, future FRDC AOPs should: <ul style="list-style-type: none"> ⊕ Simplify key targets per area of investment; and ⊕ Continue the refinement of management / governance targets that are more relevant to organisational performance (e.g. milestones achieved on time, contract turnaround times etc). 	Important	FRDC has implemented a new RD&E plan although the new plan and AOPs are not clearly aligned with simple key targets per area of investment. Such an action remains a recommendation of this performance review.
2	FRDC should develop, produce and promote to stakeholders a stand-alone performance report that summarises the FRDC's key outputs and impacts relative to targets in its RD&E plan and AOP on an annual basis.	Important	This has largely been achieved. The annual report now has a good summary of key outputs and impacts. FRDC also produces a summary video of the annual report and a detailed stakeholder presentation which summarise key outputs obtained. A summary is also provided to the annual stakeholder workshop.
3	During the development of the next RD&E plan, FRDC should review the way it organises and manages its RD&E program (its investment and evaluation framework) with the aim of simplifying it so that it is easily understood by the average stakeholder.	Important	This has been achieved. The new RD&E plan has a simplified investment matrix based on key outcomes and enabling strategies.
4	The FRDC Board should consider options to assist it in its role in respect to RD&E, one of which would be the creation of a Research Committee of the Board.	Better practice	This has been achieved. Board approval of RD&E projects is now more proportionate than it was in 2018. No Research Committee of the Board has been formed but this was only a suggestion of the review.

RECOMMENDATION		PRIORITY	RESPONSE
5	The FRDC Board should consider creating a People and Culture Committee of the Board to formalise the succession planning process for all senior management, including the MD, to recommend the remuneration of the MD, and to develop a board skills matrix.	Better practice	This has been achieved. A People & Culture Committee was established in 2018. The Board has also made succession planning a focus.
6	FRDC should develop a deeper understanding of risk appetite and risk tolerance across the key risk areas in line with new risk policy and ensure that this is monitored regularly by the FARM Committee. Risk appetite should be set by the Board with tolerances agreed between the Board and management.	Better practice	This has been achieved. Risk is very well managed by FRDC and the risk policy includes a well-articulated risk appetite statement with clear tolerance triggers. The annual reports report on the risk profile of RD&E projects.
7	FRDC should strengthen its approach to extension, possibly by creating a specific position to oversee or coordinate extension across the organisation.	Better practice	This has been achieved. FRDC appointed a Manager of Transformational Extension and Adoption and created the EON. It has also started to embed Theory of Change as a principle of its business operations.
8	FRDC should continue to conduct <i>ex-post</i> impact assessments of randomly selected projects as planned. The focus for FRDC should be on communicating the results to stakeholders using clear, simple language, as it did in its Annual Report 2016-17. FRDC could consider preparing and publicly releasing a short performance evaluation report each year, which would include results against its key performance indicators as well as the results from the impact assessments.	Better practice	This has been partially achieved. FRDC has a comprehensive approach to <i>ex-post</i> impact assessments but reporting on them could be markedly improved. This forms a recommendation of this performance review.

RECOMMENDATION		PRIORITY	RESPONSE
9	FRDC should explore with its impact assessment provider the feasibility of providing in the impact assessment reports more detailed commentary on the likely distribution of benefits from the project clusters between regions and/or sectors of the Australian fisheries sector.	Better practice	FRDC started to address this recommendation with its impact assessment provider but planned investigation was interrupted by COVID and has not been resumed. The recommendation has been repeated in this performance review.
10	FRDC should develop and implement with its impact assessment provider a project to assess willingness-to-pay studies of environmental attributes of fishery resources and externalities arising from aquaculture as input into future assessments of the environmental impacts of FRDC's Environment Program.	Better practice	This has been partly achieved. A literature review of willingness-to-pay studies has been prepared and gaps identified. FRDC decided not to proceed with the second stage of the project to address the gaps. Subsequent impact assessments have not used the information revealed from the literature review for assessing non-market environmental and social benefits from projects.

10. CONCLUSIONS AND RECOMMENDATIONS

This review has found that FRDC is performing at a very high level in a complex and challenging environment. It is a standout among RDCs in its drive to find better ways to deliver innovation to its stakeholders and has made several major improvements to its business operations since the last performance review in 2018, notably the establishment of the EON. There is no evidence for FRDC having failed to fulfil, or being at risk of not fulfilling, all of the obligations imposed by its SFA, its governing legislation or government policies. There is good evidence of the delivery of benefits to levy payers, government, and other investors from FRDC investments. Furthermore, FRDC, its management and its staff are highly respected in the Australian fishing and aquaculture sector, in government, and in research circles. While there is some feeling among stakeholders that FRDC places too great a focus on environmental and social issues at the expense of economic advancement, most stakeholders close to FRDC recognise this perception to be unfounded – as does this review.

There are areas for improvement which might be made to FRDCs performance, notably in monitoring and evaluation with a need for clearer outcome measures to demonstrate corporate performance. Ten recommendations are made as a result of the review. These are listed in Table 9, and each is rated either:

- ⊕ Critical: should be implemented as a matter of urgency in order for FRDC to meet its legal and regulatory obligations.
- ⊕ Important: actions that are expected to deliver significant benefits to the organisation and industry.
- ⊕ Better practice: expected to deliver incremental performance improvements.

No recommendations are rated as ‘critical’, while four are rated ‘important’ and six rated as ‘better practice’.

Table 9: Summary of review recommendations

	RECOMMENDATION	SECTION	RATING
1	FRDC should consider and clarify the interface between its Strategy & Innovation and Research & Development Investment divisions and communicate their respective roles internally and externally.	4.6	Important
2	The next version of the R&D plan should include some organisational key performance indicators and these should cascade through the annual operational plans and annual reports.	5.3	Important
3	FRDC should clearly define and communicate, internally and externally, the scope of Extension Officer Network activities to ensure extension officers focus on agreed FRDC transformation areas.	6.6	Important

RECOMMENDATION		SECTION	RATING
4	Progress against the Barnett review of the Indigenous Reference Group needs to be articulated and, where appropriate, any recommendations implemented by FRDC.	7.2.4	Better practice
5	FRDC should consider the development of a segmentation strategy (particularly within aquaculture) that allows more customisation of delivery of information and R&D outcomes depending on the aspirations, capacity, and capability of individual companies or organisations.	7.7	Important
6	FRDC should consider using <i>ex-ante</i> benefit-cost evaluations for some components to optimise allocation of investments across the RD&E portfolio.	8.2	Better practice
7	FRDC should encourage Industry Partnership Agreements to invest in impact assessment on a regular basis to inform their future investments.	8.3	Better practice
8	FRDC could consider changing to conducting impact assessments of projects using a cluster approach where projects from one of the five R&D strategic outcomes (or other clusters as appropriate) are randomly selected for assessment each year and on a rolling basis.	8.4	Better practice
9	FRDC should ask its impact assessment providers to provide more detailed commentary on the likely distribution of benefits from projects between sectors and supply chain stages, notably aquaculture, wild-catch, recreational fishing, Indigenous, wholesale, processing, export, and retail.	8.4	Better practice
10	FRDC should report the aggregate results from its impact assessments to stakeholders using clear, simple language in its annual report (notably the benefit-cost ratio result in the key performance indicator table), in presentations to stakeholders, in communications to stakeholders and in a single, easy to find tab on the FRDC website. This should include case studies where appropriate.	8.6	Better practice

APPENDIX 1: DOCUMENTS REVIEWED

All documents have been produced by FRDC unless otherwise specified.

GOVERNANCE AND STAFFING

- ✚ Statutory Funding Agreement 2020-2030
- ✚ *Primary Industries Research and Development Act 1989*
- ✚ *Public Governance, Performance and Accountability Act 2013*
- ✚ *Public Governance, Performance and Accountability Rule 2015*
- ✚ *Fisheries Research and Development Corporation Regulations 1991*
- ✚ DAFF undated, Guidelines for Statutory Funding Agreements
- ✚ DAFF undated, Best Practice Guide to Stakeholder Consultation Fisheries Research and Development Corporation
- ✚ CRRDC 2021, RDC Knowledge Transfer and Commercialisation Guide
- ✚ PGPA Act, PGPA Rule and SFA compliance summary, June 2023
- ✚ Forest Hill Consulting 2018, FRDC Independent Performance Review: Final Report, November
- ✚ Insync 2022, FRDC Board Effectiveness Report and Overview of Main Themes from FRDC's June 2022 Board Effectiveness Survey, October (viewed with Chair approval)
- ✚ People and Culture Committee policy, June 2022
- ✚ Board Finance and Audit Committee policy, November 2022
- ✚ Australian Venture Consultants 2023, Independent Review of the Indigenous Reference Group, April
- ✚ ANAO closing letter, FRDC year ended June 2023, 22 August
- ✚ Internal audits by Yardstick Financial and Assurance: review of staff remuneration, June 2023; eligible expenditure analysis July 2023; review of commitments, March and June 2023 and letter to DAFF July 2023; summary of FRDC 2023 financial statement advisory services, August 2023
- ✚ Managing Director's reports, various from 2022-24
- ✚ Minutes of DAFF-FRDC SFA annual performance meeting 14 September 2023, agenda and papers for consultation meeting 2 February 2024
- ✚ FRDC People Planning 2019-2026, presentation, 8 February 2024

PLANNING AND REPORTING

- ✚ R&D Plan 2020-25 and Shaping FRDC's 2020-2025 R&D Plan, companion document
- ✚ Annual operational plans 2019/20 to 2022/23
- ✚ Annual reports 2017/18 to 2022/23 and presentations to stakeholders on annual reports, February 2022 and November 2023
- ✚ Australian Prawn Farmers Association Strategic Plan 2020-2025 & Priority Activities, and RDE Appendix

- ✚ Australian Fisheries Management Forum, National Statement of Intent on Fisheries and Aquaculture, undated
- ✚ Australian Government, National Fisheries Plan 2022-2030, April 2022
- ✚ Investment Plan to Build Capability and Capacity, April 2022

RD&E MANAGEMENT AND DELIVERY

- ✚ Investment in Research and Development Policy, August 2023
- ✚ Intellectual Property Management Policy, February 2024
- ✚ Full application template
- ✚ Application pre-evaluation procedure, January 2024
- ✚ Application evaluation procedure, January 2024
- ✚ IPA procedure, January 2024
- ✚ Activities not funded by FRDC – procedure, January 2024
- ✚ RAC management procedure, January 2024
- ✚ Application evaluation template
- ✚ Standard project agreement template
- ✚ Stafford Smith, M 2020, Theory of Change Primer, A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environment Facility, Washington, D.C.
- ✚ Stafford Smith, M 2024, Encouraging Systems Approaches in Advice to FRDC, presentation, March
- ✚ FRDC Intelligence System Proof of Concept, presentation, March
- ✚ Measuring what Matters: FRDC's 2020-25 Monitoring and Evaluation Framework, undated
- ✚ First Person Consulting 2024, Evaluation Framework: Capability and Capacity Building. Report for FRDC
- ✚ Forest Hill Consulting 2019, Review of FRDC's Partnership Models, September

STAKEHOLDER ENGAGEMENT

- ✚ Stakeholder Engagement Plan 2023-24, undated
- ✚ Intuitive Solutions 2023a, 2022 FRDC Stakeholder Research, January
- ✚ Intuitive Solutions 2023b, 2023 FRDC Stakeholder Research, December
- ✚ Intuitive Solutions 2023c, Insights from the 2023 Survey with Fishing and Aquaculture Stakeholders, Partners and the Research Community, December
- ✚ FRDC Update, December 2023
- ✚ FISH magazine, volume 30 nos. 1 and 2, March and June
- ✚ FRDC 2021-22 Investment and Impact Highlights, infographic
- ✚ NRE Tas Marine Heatwave (MHW) update number 6, January 2024
- ✚ FRDC letter to Minister Littleproud regarding stakeholder engagement, 29 September 2021

DELIVERY OF BENEFITS

- ✚ CRRDC 2018, Cross-RDC Impact Assessment Program: Guidelines, April.
https://www.ruralrdc.com.au/wp-content/uploads/2018/08/201804_RDC-IA-Guidelines-V.2.pdf
- ✚ AgriFutures Australia 2021, Impact Assessment of Investment in the Agrifutures Rice Program, report prepared by Poimena Analysis, March. <https://agrifutures.com.au/product/impact-assessment-of-investment-in-the-agrifutures-rice-program/>
- ✚ Agtrans Research 2019, Cross-RDC Impact Assessment 2019: A Cross-RDC Impact Assessment for the Five-Year Period 1 July 2013 to 30 September 2018, prepared for the CRRDC, May
- ✚ Agtrans Research 2021, Evaluation of R&D projects Completed in Years ending June 2016 to June 2020: 2018/19 FRDC Evaluations (Year 4) – Aggregate Summary Report. Project 2016-134, November
- ✚ Agtrans Research and ACRE Economics 2022, Evaluation of RD&E Projects Completed in Years Ending June 2016 to June 2020: 2019/20 FRDC Evaluation Sample (Year 5) – Aggregate Summary Report. Project 2016-134, August
- ✚ Agtrans Research and NCEconomics 2019, Non-Market Impact Valuation for Fisheries RD&E – Phase 1. Report prepared for FRDC, July
- ✚ ACRE Economics 2023, FRDC Annual RDE Impact Assessment Program 2023: Aggregate Analysis – Summary Report. Project 2023-030, November
- ✚ Sugar Research Australia 2022, Annual Report 2021-22

INDUSTRY STATISTICS

- ✚ ABARES 2023a, Fishery Status Reports 2023, October.
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- ✚ ABARES 2023b, National Social and Economic Survey of Recreational Fishers 2018-21: Executive Summary
- ✚ Moore, A, Schirmer, J, Magnusson, K, Hinten, G, Galeano, D, Woodhams, J, Wright, D, Maloney, L and Dix, A 2023. National Social and Economic Survey of Recreational Fishers 2018-2021. February 2023, FRDC project No 2018-161.
- ✚ ABARES 2024, Agricultural Commodities Statistics, March.
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- ✚ Curtotti, R, Dylewski, Cao, A and M, Tuynman H 2023, Australian Fisheries and Aquaculture Outlook to 2027–28, ABARES research report, Canberra, March.
https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1034561/0
- ✚ FRDC 2024. Gross Value of Production Statistics. <https://www.frdc.com.au/gross-value-production>. Downloaded 18 April 2024
- ✚ Tuynman, H and Dylewski, M 2022, Australian Fisheries and Aquaculture Statistics 2021, ABARES, Canberra, December. DOI: <https://doi.org/10.25814/amdt-x682>. CC BY 4.0.

- ✚ Tuynman, H, Cao A, Dylewski, M and Curtotti, R 2023, Australian Fisheries and Aquaculture Statistics 2022, ABARES, Canberra, December. DOI: <https://doi.org/10.25814/pnm2-9714>. CC BY 4.0.
- ✚ Tuynman, H, Dylewski, M, Cao A, and Curtotti, R 2024, Australian Fisheries and Aquaculture Outlook to 2028-29, ABARES research report, Canberra, March.
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