

Review of FRDC's partnership models

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DISCLAIMER

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EXECUTIVE SUMMARY

This report presents the outcomes of a project commissioned by the Fisheries Research & Development Corporation (FRDC) to provide: *'...a comprehensive and independent review of the current FRDC partnership models with a view to identifying: how the various models are managed by the FRDC and how that management might be improved, the degree to which they meet stakeholder needs, how well they are meeting the FRDC's extension / adoption / impact goals, areas for improvement generally (and) how well they are contributing to the FRDC realising its planned outcome'*.

The main elements of FRDC's partnership models are:

- ⊕ Five 'programs' that form the main organising principle for the Research, Development & Extension (RD&E) Plan;
- ⊕ Three 'national priorities' identified in the RD&E Plan;
- ⊕ A series of 'subprograms' established to coordinate areas of related RD&E such as Aquatic Animal Health and Biosecurity;
- ⊕ Eight jurisdictional Research Advisory Committees (RACs); and
- ⊕ A series of Industry Partnership Agreements (IPAs).

The review involved:

1. A desktop review of key documentation in relation to FRDC's stakeholder relationships, and a scan of the engagement models of other selected Research & Development Corporations (RDCs);
2. External stakeholder consultation, comprising an online survey that attracted 141 responses, 27 one-on-one telephone interviews with a cross-section of individuals and discussions with two RACs;
3. Discussions with FRDC management to gather information and test ideas;
4. The preparation of a draft report, which was reviewed by the FRDC Board and management and then presented to a stakeholder workshop in September 2019, with an invitation to provide comments during the subsequent period; and
5. Preparation of this final report, incorporating changes to reflect the feedback received on the draft.

The main findings from the survey and interviews were:

- ⊕ Stakeholders as a whole are moderately positive about the effectiveness of the various partnership structures and claim to understand them moderately well. RACs and IPAs are generally considered to work well and to fulfil their respective purposes. Changes to RAC management implemented a few years ago have been successful. There are mixed views about whether the number of RACs should be reduced through rationalisation.
- ⊕ There was far less confidence in understanding of the subprograms except by direct participants. The main concerns about subprograms relate to scope vis-à-vis that of the RACs and IPAs. Subprograms may end up with only the 'leftovers' that RACs and IPAs are unwilling to address. On the other hand, projects that may have relevance for one or more RACs may not be supported by them because 'the subprogram can fund that'.
- ⊕ Most believe that the FRDC partnership model is too complex. Participants understand how to navigate their own domain (RAC, IPA etc) but working beyond that domain is often poorly understood. Collaboration often does not work well and can slow project approval processes significantly. The industry may not be well served by the number of plans prepared, the number of meetings / forums held and the number of RD&E calls made each year.

- # FRDC management of partnerships is generally well respected, notably with respect to RACs. However, managers are over-stretched.
- # It is important for RACs and subprograms to have capable chairs with strong governance and strategy expertise.

Four partnership models from other RDCs were reviewed: those of Australian Pork Limited (APL), Horticulture Innovation Australia, Meat & Livestock Australia (MLA) and the Australian Wool Research and Promotion Organisation (AWRAP) from the late 1990s. The four models demonstrate a range of design principles, notably a mix of regionality and specialist technical input.

Analysis of the findings from the consultation and document review indicated to the consultants that:

- # Structures should be dictated by desired outcomes or principles of investment. FRDC has a list of such principles in its 'Investment in RD&E Policy' but these are not well understood, at least externally.
- # The five 'programs' that form the main organising principle for the RD&E Plan are generally superfluous except from a reporting against the PIRD Act perspective. There is no 'infrastructure' around them (plans, targets, advisory committees). If the five programs are required and need to be reported upon by FRDC, this might be achieved through other mechanisms.
- # The IPA model is very well supported and there seems little reason to change it. Likewise, the RAC model is generally considered to be effective, although collaboration between RACs is suboptimal and rationalisation is an option preferred by some, though not all.
- # The simplest gains are to be made by rationalising the programs, subprograms, coordinating programs and national priorities and simplifying the way they operate.
- # In considering what 'structures' optimise FRDC's delivery against its principles, there is a need to think about:
 - ◆ Which funds need to be separately managed, and which ones can simply be reconciled in the background?
 - ◆ Which 'structures' need an advisory group?
 - ◆ Which 'structures' need a full strategic investment plan, and which ones would be satisfactorily served by a short statement of priorities, for example?
 - ◆ What is the appropriate balance in prioritisation between top-down (specified by FRDC in its strategic plan and AOPs) and bottom-up (by jurisdictions, sectors and other stakeholders)?
 - ◆ How can FRDC incentivise investment by the various contributors in areas it sees as priorities?
 - ◆ For projects that may have collaborative opportunities, what structures and processes can be put in place to accelerate decision making (especially for cross-jurisdictional or cross-species projects)?
 - ◆ What are the implications of FRDC's structures on frequency of project calls?

Assuming that jurisdictional RACs and IPAs continue to exist in more or less the same form, three key variables or levers were identified for manipulation to develop new partnership models:

- # Scope and role of programs: ranging from effective elimination to a complete redesign of the program architecture. A more program-centric model could maximise the alignment between FRDC's priorities / objectives and programs and streamline collaboration.
- # Centralisation of advisory expertise: an alternative to the current model being to shift decision-making from the current primary 'advisory structures' (RACs and IPAs) towards the programs, represented by FRDC management with or without an advisory group ('PAG'). This provides a greater opportunity to

align expertise (internal or advisory) with the range of FRDC activities including, for example, a specific program on disruptive technologies that present cross-sectoral opportunities. However, RACs and IPAs may perceive a loss of influence and additional advisory groups could simply be additional layers of complexity unless other changes are also made.

- ⊕ Number of (geographically-based) RACs: could be reduced to four (Northern – NT, Qld, northern NSW; Southern – southern NSW, Vic, Tas, SA; Western – WA; and Commonwealth). This could simplify current arrangements, reduce overhead and increase collaboration, but there are risks such as dilution of local priorities and/or perception of reduced jurisdictional influence that could impact on these relationships.

Four example models are presented for FRDC's consideration:

- ⊕ Example 1: The current program structure is strengthened. Priorities are set by three groups of 'investors': RACs (jurisdictional priorities), IPAs (industry priorities) and FRDC or 'National' (priorities of other stakeholders, including Indigenous, recfishing and 'the public good'). Programs manage the procurement process to meet the investor priorities. Programs may or may not have PAGs attached to them.
- ⊕ Example 2: Programs are removed. RACs and IPAs each have their own priorities and there is a series of 'national investment funds' or similar for common areas of investment, similar to the current series of subprograms / national priorities etc. This is similar to the Hort Innovation model.
- ⊕ Example 3: The program structure is completely re-designed so that it aligns with FRDC's particular circumstances and industry priorities rather than PIRD Act objects. Programs may or may not have PAGs attached to them.
- ⊕ Example 4: Regional advisory structures are simplified by merging eight RACs into four.

It is emphasised that these are only examples: elements of each could be varied or models could be combined.

Several other opportunities for improvement are also identified: a reduction in the number of plans currently in operation across the organisation; improved governance of committees; payment for committee members; and improved internal communication.

Feedback on the draft of this report indicated that general agreement that the five programs could be dropped. There was some support for simplifying 'subprogram', 'coordinating program', 'national priority' and related terminology, and some support for removing subprograms themselves. However, there was also significant support for the retention of subprograms at this time to allow them more time to deliver. There was mixed support for rationalising the number of RACs with the balance favouring the status quo, although the need for greater communication and collaboration between RACs (and with IPAs) was consistently noted. Simplifying planning to one strategic plan and a range of jurisdictional or sector priorities received strong support. There were also several suggestions to remove the 'Lead', 'Collaborate' and 'Partner' terminology used by FRDC.

Based on all the inputs to this review (review of documentation, consultation, survey findings and feedback on the draft report) the following recommendations are made to FRDC in relation to its stakeholder relationships. These recommendations are largely based around example 2 referred to above:

1. All efforts should be made to simplify FRDC's planning, reporting and project review processes.
2. All efforts should be made to reduce the workload of FRDC managers so that priorities are addressed in a timely manner.
3. The five programs should be removed from planning and reporting documents (unless the Commonwealth insists upon them).
4. Subprograms should remain but should not be added to unless totally necessary. Indeed, subprogram performance should be reviewed in two years to assess their progress (see recommendation 5).

5. To simplify structures, subprograms and the three national priorities should be renamed (either all as subprograms or national priorities – not both). The term 'national investment fund' or something similar may be worth consideration.
6. The number of RACs and IPAs should remain the same, at least for the time being. However, consideration should be given to:
 - 6.1 Rationalising the number of chairs to three (or four including the Commonwealth) so as to improve communication between RACs; and
 - 6.2 Having regular (at least annual) meetings of RAC and IPA chairs with FRDC senior management.
7. FRDC must continue to prepare one strategic plan following consultation with all relevant partners, and annual operating plans as required under legislation. However, IPAs, RACs and subprograms should only prepare priority listings of what they need to achieve over the yearly and 5-yearly planning periods. Such listings should detail SMART key performance indicators (KPIs) for their operations.
8. FRDC should consider whether some reasonable level of recompense for RAC members would be appropriate, especially where individuals are self-employed. The arguments for recompense of IPA members are less compelling given the commercial interest of participants.

In relation to extension and adoption, the survey and interviews found that stakeholders are only moderately positive that FRDC delivers optimal adoption of R&D outputs. Extension / adoption is seen as piecemeal, not well structured and would benefit from some changes. Approaches to adoption should be considered in terms of 'packages' rather than outputs of individual R&D projects. FRDC is better placed to coordinate this process than individual researchers, RACs or other partnership groups.

FRDC should consider appointing a dedicated extension and adoption manager within the organisation (we understand this has already happened). The role of the extension and adoption manager would be to ensure that all outputs from FRDC-funded R&D (and from elsewhere, where appropriate) are extended in a way that optimises adoption. This would be an oversight role, straddling the Research & Investment and Communications teams but preferably located within the former. The extension and adoption manager would need to work very closely with RACs, IPAs, industry bodies, government agencies, industry consultants and other intermediaries.

The activities of the role should be guided by a framework or strategy that identifies:

- ⊕ Different types of R&D output, and pathways to adoption for each;
- ⊕ Segments of the adopter base and their particular needs, enablers and constraints;
- ⊕ The roles of RACs, IPAs, industry bodies, government agencies, industry consultants and other intermediaries, and their requirements of FRDC, developed in close consultation with those groups;
- ⊕ Key outputs or groups of outputs not yet adopted by each segment;
- ⊕ Extension packages to address key gaps; and
- ⊕ A framework by which every R&D project feeds into an identified adoption pathway / package.

We note, though, that FRDC has made a number of changes to strengthen its extension and adoption function since the performance review. Because these changes were in train during the present project, stakeholders were not familiar with them and will not have reflected the changes in their input to the survey or interviews. Nor have we made any evaluation of the new measures.

ACRONYMS AND ABBREVIATIONS

APL	Australian Pork Limited
AWRAP	Australian Wool Research & Promotion Organisation
FRDC	Fisheries Research & Development Corporation
GRDC	Grains Research & Development Corporation
HDR	Human Dimensions Research (subprogram)
IPA	Industry Partnership Agreement
KPI	Key performance indicator
MLA	Meat & Livestock Australia
NABRC	North Australia Beef Research Council
PAG	Program Advisory Group (of AWRAP)
PIRD Act	Primary Industries Research and Development Act
R&D(&E)	Research & development (& extension)
RAC	Research Advisory Committee
RDAC	Research & Development Advisory Committee (of APL)
RDC	Research & Development Corporation
SAMRC	Southern Australia Meat Research Committee
WALRC	Western Australia Livestock Research Committee
ZAC	Zone Advisory Committee (of AWRAP)

1. BACKGROUND

In 2018-19, Forest Hill Consulting undertook an independent performance review of the Fisheries Research & Development Corporation (FRDC).¹ One of the areas of commentary of the review concerned the complexity of FRDC's 'investment and evaluation framework', that is, the structures and processes by which FRDC organises and manages its research, development and extension (RD&E) program, and engages with its multiple stakeholder groups. These include:

- ⊕ Five 'programs' that form the main organising principle for the RD&E Plan:² Environment, Industry, Communities, People and Adoption. These programs directly reflect the objects of FRDC's governing *Primary Industries Research & Development Act 1989* (PIRD Act).
- ⊕ Three 'national priorities' identified in the RD&E Plan:
 1. Ensuring that Australian fishing and aquaculture products are sustainable and acknowledged to be so
 2. Improving productivity and profitability of fishing and aquaculture
 3. Developing new and emerging aquaculture growth opportunities.
- ⊕ A series of 'subprograms' established where 'a planned research and development outcome could be more successful if a number of related projects were managed by employing higher levels of coordination, integration and communication'.³ National priorities 1 and 3 have subprograms, and others are Aquatic Animal Health and Biosecurity, Indigenous Fishing, Recreational Fishing and Human Dimensions Research.
- ⊕ Research Advisory Committees (RACs), of which there are eight, one for each of the states, the Northern Territory and the Commonwealth. The RACs '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 jurisdiction'.⁴
- ⊕ Industry Partnership Agreements (IPAs), individual agreements between FRDC and sector bodies under which FRDC manages a portfolio of RD&E projects, for the benefit of the specific sector, against an agreed strategic plan. There are currently 12 IPAs in place, and another three enterprise ones under the Tasmanian Salmonid Growers' Association.

Further detail on each of these components is provided in the performance review.

FRDC's graphic representation of this framework is shown in Figure 1.

¹ Forest Hill Consulting 2019, Independent performance review: final report

² FRDC Research, Development and Extension Plan 2015–20

³ FRDC website

⁴ RAC Management Procedure

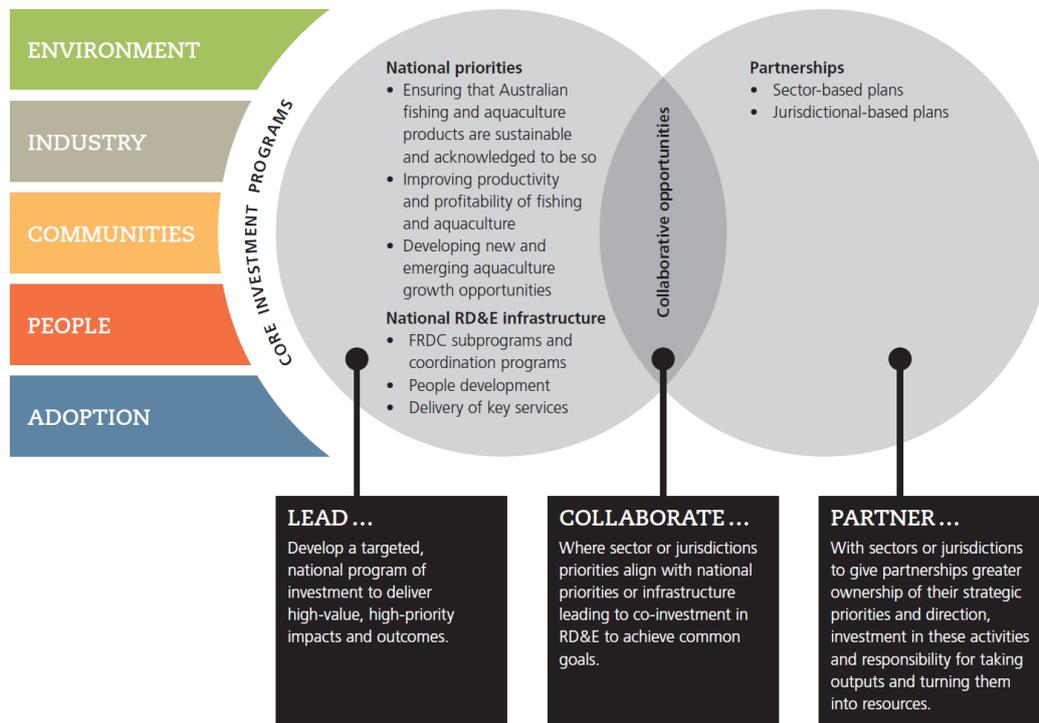


Figure 1: FRDC graphic illustrating its 'framework of RD&E investment'

Source: FRDC 2015-20 RD&E plan, p.5

One of the recommendations (#3) of the performance review was that:

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.

Another recommendation (#7) of the performance review, based mainly on feedback from stakeholders during the review, was that:

FRDC should strengthen its approach to extension, possibly by creating a specific position to oversee or coordinate extension across the organisation.

FRDC's approach to extension is closely tied to its stakeholder engagement model.

This present review was commissioned by FRDC to provide:

'a comprehensive and independent review of the current FRDC partnership models with a view to identifying:

- ⊕ *how the various models are managed by the FRDC and how that management might be improved*
- ⊕ *the degree to which they meet stakeholder needs*
- ⊕ *how well they are meeting the FRDC's extension / adoption / impact goals*
- ⊕ *areas for improvement generally*
- ⊕ *how well they are contributing to the FRDC realising its planned outcome'*

2. APPROACH TO THE REVIEW

The following approach was taken to the review:

1. Desktop review

Key documentation in relation to FRDC's stakeholder relationships was reviewed (in many cases re-reviewed), including:

- ✦ Knowledge for Fishing and Aquaculture into the Future: the FRDC's Research and Development Plan 2015-20;
- ✦ FRDC annual operational plans;
- ✦ FRDC annual reports;
- ✦ FRDC web site (www.frdc.com.au/);
- ✦ FRDC Investment in Research, Development and Extension (RD&E) policy
- ✦ Terms of reference, procedures and other supporting documentation for RACs, Subprograms and Coordinating Programs;
- ✦ Various IPAs;
- ✦ Position descriptions of relevant FRDC staff; and
- ✦ Any other documentation identified as being of relevance.

A scan of other RDCs' engagement models was also undertaken, to identify elements that could be relevant to the FRDC (acknowledging that the FRDC has some quite unique challenges with respect to stakeholder engagement compared with most of the other RDCs).

2. External stakeholder consultation

In order to gain a high level of input from FRDC's very diverse stakeholder base, an online survey was established using Survey Monkey®. The survey was extensively publicised by FRDC so that all stakeholders had the opportunity to complete the survey. The response to the survey was very good, with 141 usable responses obtained from across all groups of stakeholders.

The survey questionnaire is presented in Appendix 1.

In addition, a series of 27 in-depth telephone interviews was undertaken. Individuals chosen for interview were nominated by FRDC to provide a cross-section of stakeholders by geography, role in the sector and nature of engagement with FRDC. Each interview followed a semi-structured questionnaire seeking information on strengths and weaknesses of the current system and opportunities to improve it, including some discussion about extension.

The team also met face-to-face with the Victorian RAC (VICRAC) at its meeting of 28 March 2019, and the Tasmanian RAC (TASRAC, by phone) at its meeting on 11 April 2019. These were opportunistic interviews that took advantage of scheduled meetings that fell within the interview period.

Notes from interviews conducted for the recent performance review were also revisited for relevant insights.

3. Consultation with FRDC management

The consultants met face-to-face with, and spoke by telephone to, the FRDC General Manager Research & Investment and Senior Research Portfolio Managers on several occasions to gain an understanding of how

the FRDC model works and to test ideas. This included a face-to-face meeting in Adelaide and a half-day 'workshop' of ideas in Canberra.

Consultation was also undertaken with the manager preparing FRDC's new strategic plan (2020–2025).

4. Draft report

The results of the desktop review, stakeholder survey, internal and external consultation were synthesised into a draft report. This report was first discussed with the FRDC Board and management and then presented to a stakeholder workshop in September 2019. Feedback on the draft report was obtained at the workshop but also subsequently through numerous submissions provided to FRDC and the consultants.

5. Final report

All feedback obtained on the options put forward was then assimilated into this final report.

3. FINDINGS

3.1 SURVEY

The survey questionnaire is presented in Appendix 1. A summary of the weighted average scores for the quantitative questions (scored 1-10) is presented in Table 1.

Table 1: Summary of average scores from survey

	RAC	IPA	SP
Understanding of partnership structures	6.1		
Effectiveness of partnership structures	6.4		
Understanding of RACs	6.6		
Understanding of IPAs	5.5		
Understanding of subprograms	6.3		
'Outsiders'			
Effectiveness	5.7	5.9	5.8
Ease of engagement	4.9	4.5	4.9
'Insiders'			
Number of insiders*	34	26	50
Effectiveness of structure	7.4	7.6	7.4
How well managed	8.0	7.7	7.5
Meeting frequency appropriate	8.2		
Good mechanism		8.1	7.6
Subprograms exist for all relevant issues			5.7

	RAC	IPA	SP
Process for developing is thorough		7.4	
Meetings well organised	8.5		
Appropriate staff support	8.4	7.5	7.9
Clear about role	8.7		
Input respected by FRDC	8.0	7.9	7.9
Understanding of body priorities	8.0		
Clear about FRDC processes	8.0	7.0	7.2
Good understanding of progress	7.7	7.2	7.0
Good understanding of outputs	7.6	7.1	7.3
Good understanding of FRDC strategic priorities	7.3	7.0	7.1
Good understanding of fit with other structures	6.1	6.6	6.1
Able to give sufficient time	7.7		
How well FRDC facilitates collaboration	6.0		
How well understand framework diagram	6.2		
How well FRDC ensures adoption	5.9		

* Number of respondents identifying as being involved with the respective structure

The main findings from the survey were:

- ⊕ Stakeholders as a whole are moderately positive about the effectiveness of the various partnership structures (6.4) and claim to understand them moderately well, with IPAs the least well understood (5.5 vs 6.6 for RACs and 6.3 for subprograms) – but IPA insiders were under-represented in the sample.
- ⊕ Insiders of RACs, IPAs and subprograms have, not surprisingly, more positive views towards the effectiveness of these structures (7.4 – 7.6) than outsiders (5.7 – 5.9). Outsiders rate the ease of engagement with each structure as quite low (4.5 – 4.9).
- ⊕ There is very positive sentiment towards FRDC's management of the RACs, IPAs and subprograms. Responses to questions about administration, support and FRDC's respect for outputs from insiders all exceeded 7.5 and most exceeded 8.0.
- ⊕ There is a reasonable level of understanding of the priorities of the respective structures, their outputs and progress among insiders (range 7.1 – 7.7).
- ⊕ There is a lower level of understanding of how the three structures fit together (6.1 – 6.6), sentiment that FRDC effectively facilitates collaboration (6.0) and understanding of the framework diagram (6.2).
- ⊕ Stakeholders are only moderately positive that FRDC ensures optimal adoption of R&D outcomes (5.9).

3.2 INTERVIEWS

The in-depth interviews provided an opportunity to drill down in greater depth on issues of importance to the review. Bearing in mind that each interview was one data point in relation to the survey, and that interviewees

were not randomly selected, the findings from the interviews were generally consistent with the survey. Additional or 'reinforced' insights from the interviews were:

- ⊕ FRDC management of partnerships is generally well respected. RACs in particular are reported to be well managed. FRDC as a whole is regarded as doing a good job in a complex environment.
- ⊕ However, FRDC managers are over-stretched and have limited opportunity to provide strategic thinking on RD&E priorities or FRDC's processes. This is a lost opportunity. Priorities identified at the stakeholder workshops (for example) have not been progressed because management do not have the time to provide the necessary impetus for implementation.
- ⊕ The changes to RAC management implemented a few years ago, under which oversight of the eight RACs is concentrated in two Research Portfolio Managers and two Research Portfolio Officers and FRDC fills the executive officer role for each RAC, have been successful.
- ⊕ The FRDC partnership model is too complex. Participants understand how to navigate their own domain (RAC, IPA etc) but working beyond that domain is often poorly understood. Collaboration often does not work well and needs to be improved, but there were few ideas about how to achieve this except that simplification is required. Indeed, 'attempts' at collaboration (project proposals being on-sent to other RAC's) can slow approval processes down significantly and is the source of some frustration.
- ⊕ The industry may not be well served by the number of plans prepared, the number of meetings / forums held and the number of RD&E calls made each year.
- ⊕ RACs and IPAs are generally considered to work well and to fulfil their respective purposes. Both are reasonably well understood by the external stakeholders interviewed. Interviewees were far less confident in their understanding of the subprograms except where they participated directly in one of these, in which case they generally had a poor understanding of other subprograms.
- ⊕ It is important for RACs to have capable chairs. There were several observations about the important role played by RAC and subprogram chairs and that the skill set of strong governance and strategy expertise was of paramount importance.
- ⊕ There are mixed views about whether the number of RACs should be reduced through rationalisation, and sound reasons to support both arguments. The main concern is that 'local voices will be lost' or that state based funding may be put in jeopardy.
- ⊕ Views on the effectiveness of the subprograms are mixed, even among those who have been directly involved in them. The main concerns relate to scope – that is, what the subprogram addresses vis-à-vis what RACs and IPAs address. If subprograms fail to lead investment in their area, they may end up with only the 'leftovers' that RACs and IPAs are unwilling to address.
- ⊕ On the other hand, projects that may have relevance for one or more RACs may not be supported by them because 'the subprogram can fund that'.
- ⊕ Extension / adoption is piecemeal, not well structured and needs to be changed. Approaches to adoption should be considered in terms of 'packages' rather than outputs of individual R&D projects. FRDC is better placed to coordinate this process than individual researchers, RACs or other partnership groups.
- ⊕ The effectiveness of writing 'extension' into project proposals to be managed by the research officer was frequently questioned.

3.3 PARTNERSHIP MODELS IN OTHER RDCS

Four partnership models were of particular interest to the review and are described below.

It should be noted that each of these RDCs is an industry owned company whose funding is provided by compulsory industry contributions direct to the RDC and matched by the Commonwealth Government.⁵ FRDC's industry contributions are provided as voluntary contributions through the respective state and territory government and are then matched by the Commonwealth. The Commonwealth Government provides an additional unmatched contribution for public good RD&E. This is an important difference between FRDC and other RDCs.

3.3.1 AUSTRALIAN PORK LIMITED

Australian Pork Limited (APL) has a series of four Specialist Groups that advise on key themes of the APL Strategic Plan:

1. Marketing Development (SG1), chaired by one of APL's specialist directors;
2. Production and Welfare (SG2), chaired by an industry RD&E manager;
3. Environmental Management (SG3), chaired by an industry consultant; and
4. Biosecurity and Product Integrity (SG4), chaired by a researcher.

The scope of the Specialist Groups does not align directly with APL's five strategic objectives, with the exception of SG1, which has sole responsibility for strategic objectives 1 ('Growing Consumer Appeal') and 2 ('Building Markets'). Each of the other three groups has input to more than one of the other three strategic objectives.

Each Specialist Group comprises 15 members and includes experts from among industry, research providers, state and federal governments and APL managers. Each group develops an annual business plan that is reviewed by a Research & Development Advisory Committee (RDAC) comprising the Chairs of the Specialist Groups and members of the Board and executive. The RDAC is a committee of the APL Board and advises it on the overall investment portfolio.

3.3.2 HORTICULTURE INNOVATION AUSTRALIA

Horticulture Innovation Australia (Hort Innovation) has some similarities to FRDC, to the extent that it is a service provider to multiple small industries with unique and also common RD&E priorities.

Each of Hort Innovation's industries has its own funding stream, comprising levies plus matching Commonwealth funding. Each industry invests these funds under the guidance of a strategic investment plan. Horticulture differs from some other industries in that the maximum Commonwealth contribution is calculated as 0.5% of the gross value of production of the whole horticulture sector rather than industry-by-industry.⁶ This amount is substantially higher than the sum of matching contributions to each industry. The additional money is invested by Hort Innovation in a series of co-investment funds – the 'Hort Frontiers strategic partnership initiative' – to address longer-term opportunities and threats common to at least a number of individual

⁵ The Australian Wool Research and Promotion Organisation was in fact a statutory RDC. It was succeeded by Australian Wool Innovation Limited, an industry-owned company

⁶ We note that the matching government contribution for fisheries is calculated differently to that of horticulture

industries. There are currently seven such funds, identified in consultation with stakeholders and including 'Fruit fly', 'Green cities' and 'Leadership'.

Individual industries can choose to invest in Hort Frontiers funds. For example, the turf industry invests in 'Green cities'. The Hort Frontiers funds also seek external funding partners (government departments, non-government entities and universities). As at November 2017, external co-investors contributed 52% to Frontiers funds.⁷ Each fund is governed by a 'Co-investment strategic intent' document, a one-pager that describes the purpose of the fund, its themes and outcomes.

Each industry and Frontiers fund is overseen by a Hort Innovation Relationship Manager who manages investments with the input of a Strategic Investment Advisory Panel or Expert Advisory Panel (for Frontiers funds). Hort Innovation is currently revamping its organisational structure.

Hort Innovation does not have 'programs': its new Strategy 2019-23 describes three 'strategic pillars': 'Drive knowledge and innovation into horticulture industries', 'Deliver the highest value R&D, marketing and trade investments across industries, now and into the future' and 'Enable activities that drive all strategic imperatives' (essentially: adoption; R&D, marketing and trade services; and enabling).

3.3.3 MEAT & LIVESTOCK AUSTRALIA

MLA's consultation process has some similarities to FRDC as it is regionally-based and provides red meat producers (levy payers) with an ability to directly influence the RD&E priorities and activities.

MLA states that it *'has established this framework to ensure national and regionally-relevant research, development and adoption priorities are identified to deliver optimum value back to grassfed beef and sheepmeat businesses and the red meat industry'*.⁸

MLA has established 18 regional producer-driven committees throughout Australia that identify regional priorities and submit these to three main bodies (Councils), where the priorities are consolidated for that region. These overarching committees are:

- ⊕ North Australia Beef Research Council (NABRC);
- ⊕ Southern Australia Meat Research Council (SAMRC); and
- ⊕ Western Australia Livestock Research Council (WALRC).

Priorities identified by NABRC, SAMRC and WALRC are then taken to the (national) Red Meat Panel for review and subsequent advice to the MLA Board.

Once the priority areas for each financial year are determined, MLA's annual call invites submission of preliminary proposals for RD&E that are aligned with these priorities. To complete the loop, preliminary proposals submitted are then assessed by panels of the three Councils along with MLA staff. Successful applicants are invited to submit a full proposal. Full applications are then assessed for their technical merit by an independent expert panel and subsequently the Red Meat Panel who recommend the best projects for MLA to fund.

⁷ GHD 2018, Horticulture Innovation Australia Ltd Independent Performance Review: Final Report, p 16

⁸ www.mla.com.au/about-mla/what-we-do/rd-consultation/

3.3.4 AUSTRALIAN WOOL RESEARCH AND PROMOTION ORGANISATION (LATE-1990S)

This model is included because of the consultants' direct experience with it, and our view that it was as effective as most other models we have seen, notwithstanding the difficult circumstances of the wool industry at that time.

The Australian Wool Research and Promotion Organisation (AWRAP) consultative structure was centred on three Zone Advisory Committees (ZACs) and a series of Program Advisory Groups (PAGs). ZACs comprised approximately six producers plus one consultant from each of three zones (High Rainfall, Sheep/Cereal and Pastoral). As a result, the ZACs represented the three broad wool production systems in Australia and their specific RD&E needs.

ZAC members were selected through an open expression of interest process. Selection was managed to ensure a broad mix of appointees across gender, states and regions, enterprise type and size and specific interests (e.g. genetics, pastures). Appointments were for a period of three years.

The role of the ZACs was to provide strategic input to AWRAP's RD&E planning and management. ZACs met twice-yearly as an entire group for two or three days and reviewed each of the program areas. For some part of these meetings, the three individual ZACs met separately to discuss zone priorities. ZAC members were also expected to play a role in communicating AWRAP R&D business to local growers.

Each individual ZAC member played an important role as a member of a PAG in which they held a specific interest. There was a PAG associated with each R&D program (such as genetics, pastures and animal health). Membership of each PAG comprised the relevant Program Manager as Chair, a member of each relevant ZAC plus 2-3 independent experts. PAGs monitored current projects; considered proposals for new projects; identified areas in which projects should be commissioned; and made recommendations to AWRAP accordingly. PAGs met as required, 2-3 times per year face-to-face and at other times via teleconference.

4. DISCUSSION

Our analysis and the findings of the stakeholder consultation indicate that:

1. Structures should be dictated by desired outcomes or principles of investment. FRDC has a list of such principles in its 'Investment in RD&E Policy', and these include 'maximise efficiency and effectiveness', 'be flexible' and 'maximise opportunities for collaboration'.

One interviewee noted that these principles and their relative priority are not clearly articulated by FRDC, and the 'Investment in RD&E Policy' would not be well known by external stakeholders, although the organisation's structures suggest that equity of investment between contributors is a predominant consideration. This is unsurprising given FRDC's legislated requirement to spend an equal amount on RD&E activities of relevance to the jurisdiction to the amount it has contributed, over a five-year period.

It may be valuable for the FRDC Board to more clearly communicate the principles underpinning its RD&E investments and the weighting to be applied to each. The latter is important because the principles may not always be aligned. For example, greater disaggregation of funds may maximise equity of investment between contributors but reduce project merit and organisational efficiency.

2. It is not clear that the five-program structure in the R&D Plan, reflecting the objects of the PIRD Act, adds much value to FRDC's planning and reporting except to act as a checklist of areas for investment. There is little elaboration on the programs in the plan (for example, none have key performance indicators) and there are no advisory groups attached to each of the programs. We are not aware of any other RDCs

governed by the PIRD Act (for example, Cotton Research & Development Corporation, AgriFutures Australia) that have not developed program structures specific to their own industry's circumstances.

If the five programs still need to be reported upon by FRDC, this might be achieved through other mechanisms (for example, in the annual report).

3. The IPA model is generally very well supported, certainly by the industries. It is a very good mechanism for ensuring RD&E meets industry priorities and, for this reason, it facilitates adoption of R&E outcomes. There seems to be little reason to fundamentally change the IPA model. This is not to gloss over dissatisfaction among two of the IPAs that we are aware of – but the concerns in those cases are specific to the respective IPAs rather than being general to the model.
4. Likewise, the RAC model is generally considered to be effective in identifying and addressing jurisdictional priorities. However, collaboration between RACs is suboptimal. There is a question as to whether there could be a rationalisation of the RACs and this is an option for FRDC to consider.
5. The two, related, areas where there is the greatest opportunity for improvement are the program structure and the cross-program or cross-investor vehicles – that is, the subprograms, coordinating programs and national priorities. These are not well understood and stakeholders believe that collaboration is not as effective it could be.

This is not surprising. The term 'subprogram' usually denotes a nested portion of a program, but at least some of the subprograms span more than one program (e.g. Aquatic Animal Health and Biosecurity spans at least the 'Environment' and 'Industry' programs). Likewise, there are three national priorities, two of which have been constituted as subprograms, while the other (productivity and profitability of fishing and aquaculture) forms part of all of the programs and subprograms.

In our view, the simplest gains are to be made by rationalising the programs, subprograms, coordinating programs and national priorities and simplifying the way they operate. Consolidating the jurisdictional RACs is another option explored below.

6. In considering what 'structures' optimise FRDC's delivery against its principles, there is a need to think about:
 - ◆ Which funds need to be separately identified and managed in the investment structure, and which ones can simply be reconciled in the background – for example, could performance against the five programs simply be captured through fields in the finance system and reported as required?
 - ◆ Which 'structures' need an advisory group?
 - ◆ Which 'structures' need a full strategic investment plan, and which ones would be satisfactorily served by a short statement of priorities, for example?
 - ◆ What is the appropriate balance in prioritisation between top-down (specified by FRDC in its strategic plan and AOPs) and bottom-up (by jurisdictions, sectors and other stakeholders)? For example, should FRDC have targets for investment in each of its five programs, or should those targets simply be the aggregate of the constituent plans?
 - ◆ If it does not dictate, how can FRDC incentivise investment by the various contributors in areas it sees as priorities?
 - ◆ For projects that may have collaborative opportunities, what structures and processes can be put in place to accelerate decision making (especially for cross-jurisdictional or cross-species projects)?
 - ◆ What are the implications of FRDC's structures on frequency of project calls?

5. MODEL OPTIONS AND RECOMMENDATIONS

5.1 KEY VARIABLES

There are a number of variables in the FRDC partnership model that could be manipulated to produce a range of possible new models. These variables or 'levers' are discussed below, and the strengths and weaknesses of each variation explored.

Two assumptions are made here:

1. The RACs (regionally-based bodies) continue to exist in some form, necessitated by FRDC's funding model.
2. The IPAs continue to operate, more or less as they currently do, given the very high level of support for them among industry.

5.1.1 SCOPE AND ROLE OF 'PROGRAMS'

FRDC articulates five programs in its strategic plan, as described above. These five programs are quite generic – they reflect the objects of the PIRD Act rather than reflecting the particular circumstances / strategic imperatives of the fisheries sector. The latter are captured to some extent in subprograms, national priorities and so on.

There are four options here, listed broadly in order of increasing focus on programs as the key organising principle of FRDC's investments:

1. Effectively eliminate 'programs', replacing them with something like Hort Innovation's 'strategic pillars' that are even more generic than FRDC's (e.g. 'Drive knowledge and innovation into horticulture industries').
2. Maintain the current architecture.
3. Maintain the current program architecture, but rationalise the subprograms etc into a single set of cross-sectoral investment funds.
4. Redo the program architecture from scratch to reflect whole-of-sector priorities and merge the subprograms etc into the new programs.

Options 1 and 4 above are the simplest, conceptually, because they eliminate the distinction between programs, subprograms, national priorities and so on.

The arguments for a new, more program-centric, investment architecture (that is, towards option 4 above) include:

- ⊕ There would be an opportunity for engagement of industry through the development of the new structure and identification of industry-led priorities.
- ⊕ Collaboration between investors should be more streamlined, provided appropriate processes and procedures are put in place.
- ⊕ Alignment between FRDC's priorities / objectives and the program structure would be maximised.

The arguments against a more program-centric investment architecture (that is, towards option 4 above) include:

- ✦ It presents a radical departure from FRDC's current approach and would therefore impose the highest transition costs and requirement to communicate these new arrangements effectively with stakeholders.

5.1.2 CENTRALISATION OF ADVISORY EXPERTISE

This lever is linked closely with the one above.

In the current model, expert and representational input into FRDC's RD&E program is gained through:

- ✦ RACs;
- ✦ IPAs;
- ✦ Advisory groups for subprograms, national priorities etc; and
- ✦ Portfolio managers.

The expertise available through these structures ranges from industry / sector understanding to technical / scientific, regulatory and other disciplinary skills.

As a general observation, the current model of RD&E procurement is primarily organised around industry (IPA) and regional (RAC) priorities, with a secondary overlay of technical and project management expertise from FRDC portfolio managers and expert committees mostly associated with subprograms (e.g. Aquatic Animal Health and Biosecurity). This makes collaboration by program area relatively challenging because the default point of 'decision-making'⁹ is more peripheral to FRDC (RACs and IPAs).

An alternative approach is to shift this decision-making more towards the programs, represented by FRDC management with or without an advisory group ('PAG') attached to each of the programs. Instead of a given RAC or IPA issuing a call for a specific area of work, it might indicate to the relevant program manager (through a simplified prioritisation exercise) that it needs an R&D solution to a particular question for which the manager / PAG would issue a call. That call might be for a composite project that meets the needs of several 'investors' (IPAs, RACs and/or FRDC as a 'public good' investor).

The arguments for a more program-centric advisory structure include:

- ✦ Collaboration between investors should be more streamlined, provided appropriate processes and procedures are put in place.
- ✦ There is greater opportunity to align expertise (internal or advisory) with the range of FRDC activities. This could include, for example, a specific program on disruptive technologies that present cross-sectoral opportunities. Such a program might be managed quite differently and require a different skill set on its PAG compared with the 'business-as-usual' programs.

The arguments against a more program-centric advisory structure include:

- ✦ There may be a perceived shift of influence from RACs and IPAs to programs. To avoid this, the new structure would need to protect the current 'rights' of the IPAs and RACs in respect to RD&E procurement.
- ✦ PAGs would essentially be an expansion of the current expertise-based panels associated with subprograms etc rather than another 'layer', but they might involve a net increase in the number of

⁹ Acknowledging that the FRDC Board makes the final decisions

committees. To offset this and reflect the shift of emphasis, FRDC might simplify the role of, and/or consolidate, the RACs (see below).

- ✦ It presents a radical departure from FRDC's current approach and would therefore impose the highest transition costs and requirement to communicate these new arrangements effectively with stakeholders.

5.1.3 NUMBER OF (GEOGRAPHICALLY-BASED) RACS

The idea of consolidating the RACs, so that there are three or four instead of the current eight, has been raised. A broad regional model ('north / south / west') would be consistent with those of MLA and AWRAP as described in section 3.3 – and also the Grains Research & Development Corporation (GRDC). However, FRDC is funded differently to those organisations, so their consultative models do not necessarily provide a good guide to FRDC.

The alternative to the existing model is simply to merge the existing RACs, for example:

- ✦ Northern: merger of Northern Territory, Queensland, northern New South Wales;
- ✦ Southern: merger of southern New South Wales, Victoria, Tasmania, South Australia;
- ✦ Western: current Western Australia RAC; and
- ✦ Commonwealth (already in place).

The arguments for a consolidated structure include:

- ✦ Fish populations do not recognise state/territory borders.
- ✦ Fewer bodies means greater simplicity, fewer plans and fewer committees.
- ✦ FRDC overhead in cash and staff time should be reduced, allowing greater investment in RD&E projects or other aspects of the partnership framework (e.g. collaborative activities, stakeholder engagement).
- ✦ There should be greater collaboration (geographically and with RACs) because of the fewer bodies involved.
- ✦ There is consistency with the approach taken by other RDCs.

The arguments against a consolidated structure include:

- ✦ There could be a perception of reduced jurisdictional influence that could impact on these relationships.
- ✦ The RACs have only recently been through an extensive restructure, and another one may be greeted negatively.
- ✦ There is the potential for dilution of local input into priorities.
- ✦ There would be an increased travel burden on members and an onus on them to consult with their 'constituents', although this could be offset by financial support from FRDC.

5.2 EXAMPLE MODELS

Four examples of possible models are presented here.

5.2.1 EXAMPLE 1: STRENGTHENING OF CURRENT PROGRAMS

The first example draws to some extent on the APL and AWRAP models (sections 3.3.1 and 3.3.4). Key features of this option are:

- # The five programs continue to provide the main organising architecture of the strategic plan, but more explicitly so.
- # Priorities are set by three groups of 'investors': RACs (jurisdictional priorities), IPAs (industry priorities) and FRDC or 'National' (priorities of other stakeholders, including Indigenous, recfishing and 'the public good'). These investor groups also review progress against their priorities and advise redirection where required. The investors may not have detailed strategic plans but, instead, shorter documents that mainly identify their RD&E priorities.
- # The key directional document is the overarching FRDC Strategic Plan which has been prepared in close collaboration with industry. Each program could – but may not necessarily – have an advisory group ('PAG', as described above) that advises FRDC on the portfolio of investments under that program, helping to determine strategy and set KPIs based on the priorities put forward by the three investor groups. PAGs are separate to RACs and IPAs but may have cross-membership with them. The PAG is in a position to identify collaborative projects that span the needs of multiple investors. PAGs might not completely align programs one-on-one – for example, 'People' and 'Communities' might be joined together, while 'Industry' might be spilt into more than one PAG (e.g. 'Aquaculture' and 'Wild catch', for a start). Note: 'PAGs' could be called 'RACs', if this reduces confusion – depending what other options are taken.
- # FRDC manages the call for projects based on National (cross-sector), IPA and RAC priorities. Project proposals are directed to the relevant 'investor' for consideration, but funding decisions obviously remain with FRDC.
- # Current national priorities and subprograms disappear, with each subsumed into the most relevant program: for example, Aquatic Animal Health and Biosecurity into 'Industry'.

This model is shown diagrammatically in Figure 2.

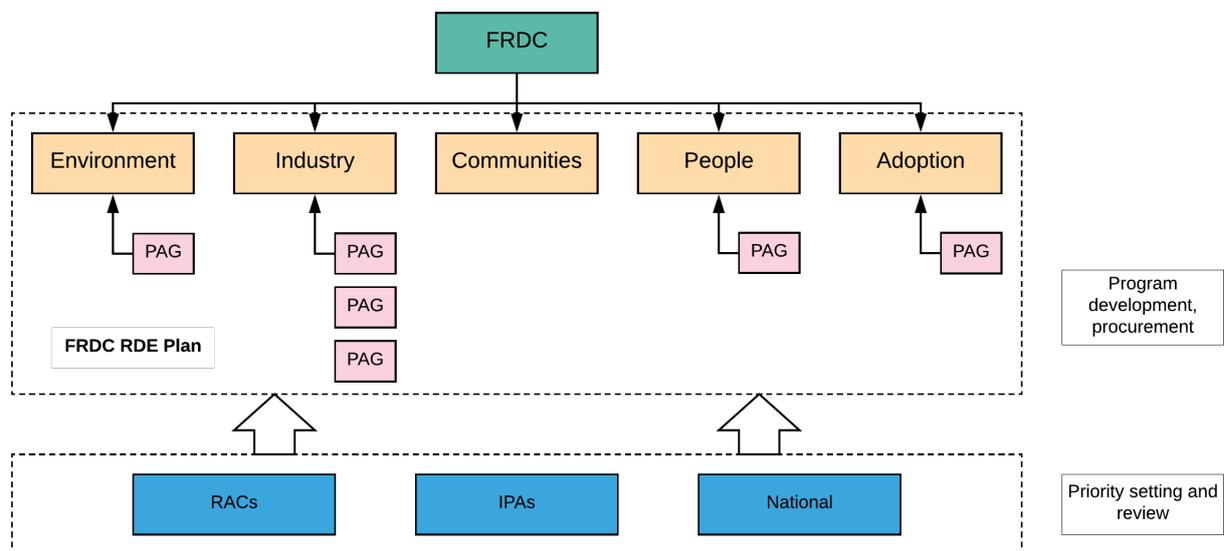


Figure 2: Example 1

5.2.2 EXAMPLE 2: REMOVAL OF PROGRAMS, 'SUBPROGRAMS' AS STRATEGIC IMPERATIVES

In contrast to example 1, in which the programs are elevated in significance, this example would see the programs abolished and the current subprograms, coordinating programs and national priorities elevated to become the strategic imperatives for FRDC. The investment structure would look similar to that of Hort Innovation, except that there are both industry funds (via IPAs) and jurisdictional funds (via RACs) in addition to the cross-sector funds. Generic strategic pillars (such as 'effective and efficient RD&E delivery') would replace the current programs and KPIs could be set against each pillar, again similar to Hort Innovation.

Subprograms, national priorities and so on would be given a new single collective name (e.g. national investment funds) and would operate under a standard set of structures and procedures. This is shown in Figure 3. Note that, in the figure, the number of funds is purely illustrative.

This example essentially recognises that FRDC's priorities are emergent from the respective priorities of the RACs, IPAs and the 'National' investor (FRDC).

This model is shown diagrammatically in Figure 3.

	National (FRDC)		Industries (IPAs)		Jurisdictions (RACs)	
National investment fund 1	X		X		X	
National investment fund 2	X				X	
National investment fund 3			X			
National investment fund 4	X		X			
National investment fund 5			X		X	
'Own' priorities	X					
'Own' priorities			X			
'Own' priorities					X	

Figure 3: Example 2

5.2.3 EXAMPLE 3: NEW PROGRAMS, NEW STRUCTURES

This example involves a complete re-design of the program structure so that it better aligns with FRDC's particular circumstances and industry priorities. For example, 'Communities' might not be a program under a re-design, whilst the current 'Industry' program might be broken up into areas such as 'Aquaculture', 'Wild catch' and 'Supply chain development' (these should not be interpreted as recommendations – they are simply examples).

This option would be similar to example 1 but with re-designed programs and PAGs corresponding to each. It is shown diagrammatically in Figure 4. The programs shown are only examples. A variation or version of this example would be the inclusion of a specific program on disruptive technologies that present cross-sectoral opportunities.

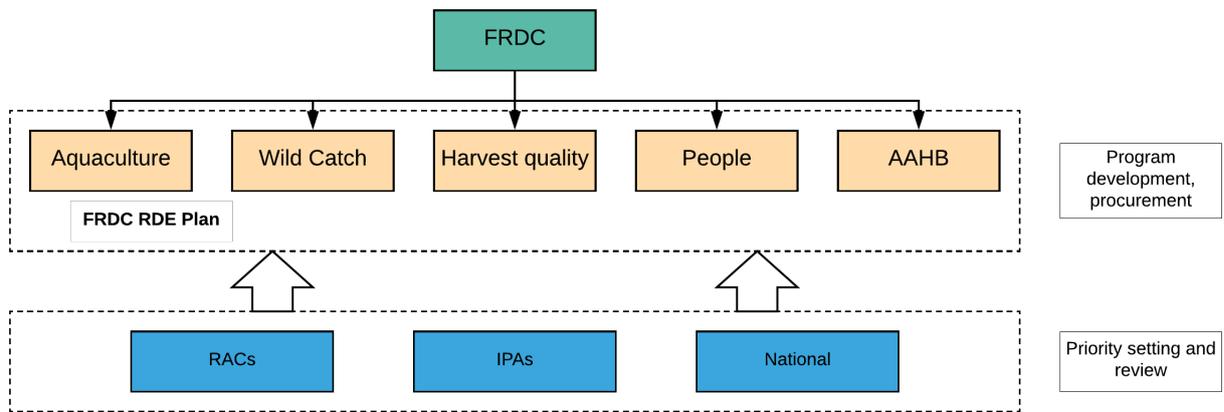


Figure 4: Example 3

5.2.4 EXAMPLE 4: SIMPLIFIED, REGIONAL ADVISORY STRUCTURES

This model draws on the MLA, AWRAP (and GRDC) models of broad, regionally-based, consultative bodies. In the FRDC case, these would essentially be mergers of the RACs:

- # Northern: Northern Territory, Queensland, northern New South Wales;
- # Southern: southern New South Wales, Victoria, Tasmania, South Australia;
- # Western: Western Australia; and
- # Commonwealth.

Each of the IPAs could also be 'mapped to' and participate in one of these regional bodies (called 'RACs' here). For example, the Southern RAC would include Southern Rocklobster and Tasmanian Salmonid. A more radical version of this model would see the IPAs progressively merge to become incorporated into the new RACs. Moving towards this model could be a longer-term aim but it is noted that it would likely be strongly resisted by existing IPAs.

Under this model, FRDC management would be structured primarily around a program architecture that incorporates current subprograms, national priorities and so on (similar to example 3). Responsibility for identifying and driving cross-sectoral collaborations would lie with the program managers and advisory groups could be established where needed (Figure 5).

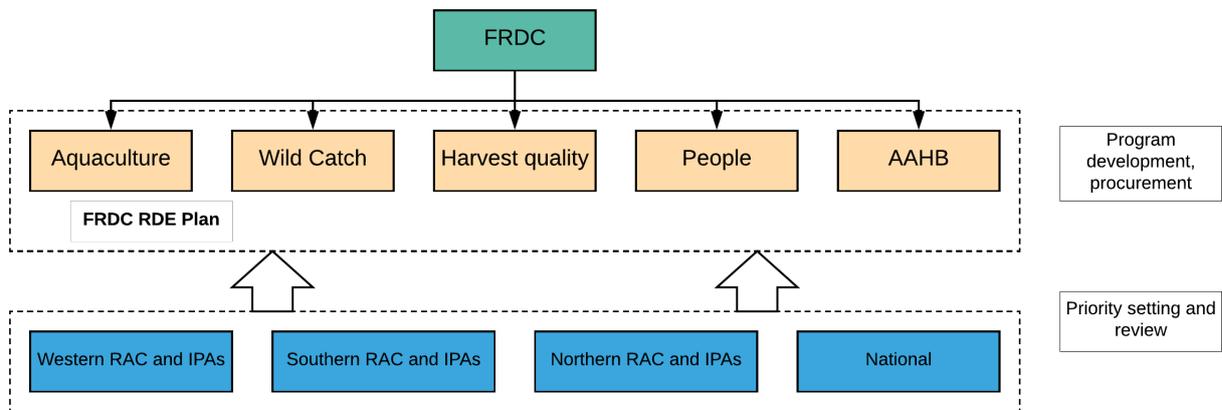


Figure 5: Example 4

5.3 OTHER OPTIONS / CONSIDERATIONS

5.3.1 REDUCTION IN THE NUMBER OF PLANS

Depending on what design of partnership model FRDC decides upon, there is an opportunity to reduce the overall planning burden. There are currently a large number of RD&E plans in place, covering FRDC corporate and each of the RACs, IPAs, subprograms and so on.

Particularly in models in which programs become more prominent in the FRDC's planning architecture, most of the planning could be done at program level. RAC plans could be replaced with relatively simple lists of priorities, and likewise IPAs, especially where industries have their own detailed strategic plans.

5.3.2 IMPROVED GOVERNANCE OF COMMITTEES

FRDC's committee chairs are all, undoubtedly, highly capable people. However, the review heard that in a small number of cases chairs of advisory committees may have been selected on the basis of technical skills or industry connections rather than governance skills and that this has led to committee underperformance.

FRDC should consider making governance, facilitation, strategic thinking and related skills the major criteria on which to select chairs of all committees, to ensure that those committees are focused on delivering against their terms of reference.

FRDC should also consider a requirement for each committee to undergo an annual evaluation process, similar to that of a board.

5.3.3 PAYMENT FOR COMMITTEE MEMBERS

FRDC should consider whether some reasonable level of recompense for committee members would be appropriate, especially where individuals are self-employed or their contribution is to an area of FRDC activity that is less directly linked to the individual's commercial benefit (for example, on RACs). The significant addition to FRDC overhead is acknowledged. This is a consideration that would be most justified and financially viable if there were some degree of consolidation of the current committees (for example, merging of RACs).

5.3.4 IMPROVED INTERNAL COMMUNICATION

A number of interviewees for the review noted that much of the current complexity in the FRDC model could be ameliorated by better communication between groups. One interviewee noted, for example, that their RAC had little confidence to invest in subprograms such as Human Dimensions Research (HDR) because they simply did not know enough about them. A presentation from a member of the HDR committee or even from a knowledgeable FRDC staff member could make a significant difference.

Various options for improved communications could be looked at, depending on the model chosen. For example, the annual stakeholder forum is an important vehicle, but there is currently some frustration that priorities identified at that forum are not acted upon. A more centralised advisory structure might facilitate action on identified priorities through the PAGs.

5.4 FEEDBACK ON THE EXAMPLE MODELS

The variables and models described above were presented for consideration by a workshop of FRDC stakeholders, and an opportunity was provided for written feedback in the subsequent period.

The feedback received can be summarised as follows:

- ⊕ There was general agreement that the five programs could be dropped. Should the Commonwealth require reporting against the programs referred to in the Act, then FRDC could simply provide a matrix at the back of its annual reports to demonstrate to the Minister how the FRDC structure relates to the Act, Government priorities etc.
- ⊕ There was some support for simplifying 'subprogram', 'coordinating program', 'national priority' and related terminology, and some support for removing subprograms themselves. However, there was also significant support for the retention of subprograms at this time to allow them more time to deliver.
- ⊕ While there was support for rationalising the number of RACs the balance favoured the status quo. However, the need for greater communication and collaboration between RACs (and with IPAs) was consistently noted. One option worth considering is rationalising the number of RAC chairs – perhaps down to 3 (north, south, west) or 4 (including Commonwealth). If so, the RAC chairs (and the IPA chairs) could be brought together to form a National Priority Advisory Committee or something similar. Such a committee could meet twice a year.
- ⊕ There was support for simplifying (reducing) planning and strong queries in relation to the need for multiple plans. The majority wanted one strategic plan and a range of jurisdictional or sector priorities.
- ⊕ There were also several suggestions to remove the 'Lead', 'Collaborate' and 'Partner' terminology used by FRDC.

5.5 RECOMMENDATIONS

Based on all the inputs to this review (review of documentation, consultation, survey findings and feedback on the draft report) the following recommendations are made to FRDC in relation to its stakeholder relationships. These recommendations are largely based around example 2 referred to above:

1. All efforts should be made to simplify FRDC's planning, reporting and project review processes.
2. All efforts should be made to reduce the workload of FRDC managers so that priorities are addressed in a timely manner.

3. The five programs should be removed from planning and reporting documents (unless the Commonwealth insists upon them).
4. Subprograms should remain but should not be added to unless totally necessary. Indeed, subprogram performance should be reviewed in two years to assess their progress (see recommendation 5).
5. To simplify structures, subprograms and the three national priorities should be renamed (either all as subprograms or national priorities – not both). The term 'national investment fund' or something similar may be worth consideration.
6. The number of RACs and IPAs should remain the same, at least for the time being. However, consideration should be given to:
 - 6.1 Rationalising the number of chairs to three (or four including the Commonwealth) so as to improve communication between RACs; and
 - 6.2 Having regular (at least annual) meetings of RAC and IPA chairs with FRDC senior management.
7. FRDC must continue to prepare one strategic plan following consultation with all relevant partners, and annual operating plans as required under legislation. However, IPAs, RACs and subprograms should only prepare priority listings of what they need to achieve over the yearly and 5-yearly planning periods. Such listings should detail SMART key performance indicators (KPIs) for their operations.
8. FRDC should consider whether some reasonable level of recompense for RAC members would be appropriate, especially where individuals are self-employed. The arguments for recompense of IPA members are less compelling given the commercial interest of participants.

6. EXTENSION / ADOPTION

As identified in the performance review, extension of R&D outputs and other forms of innovation is, to some extent, a different proposition for FRDC than it is for many other RDCs. A significant proportion of FRDC's R&D output informs government policy, for example in the management of particular fisheries, and therefore has a built-in adoption pathway. Projects funded under IPAs are more likely to provide adoption opportunities because of the greater industry ownership of the research. Other R&D outputs, though, present the usual adoption challenges faced by other primary production sectors. In FRDC's case this may be more challenging because of the nature of the industry (for example, the size and fragmented nature of the recfishing sector). However, for those R&D outputs that do require a deliberate change management effort, FRDC did not, at the time of the performance review, appear to have the well-structured and systematic approach to extension and adoption that many RDCs do.

As part of this current review, stakeholders were asked about extension and adoption, especially in relation to FRDC's partnership structures. **We understand that FRDC has made a number of changes to strengthen its extension and adoption function since the performance review. Because these changes were in train during the present project, stakeholders were not familiar with them and will not have reflected the changes in their input to the survey or interviews. Nor have we made any evaluation of the new measures.**

While extension and adoption were not the primary consideration of this review, some feedback of a common nature included:

- ⊕ There is a recognition that the structure of some sections of the industry (for example recfishing) presents challenges for extension and adoption.
- ⊕ The organisation best placed to coordinate extension is FRDC, even if activities are devolved to IPAs and RACs.
- ⊕ The reliance on electronic communication to underpin extension and adoption does not hold value for many participants (although short YouTube videos have apparently been very successful).
- ⊕ It is important to build trust and relationships, and these are underpinned by direct access to people – on a pier or the back of a boat.
- ⊕ The reliance on the lead scientist to undertake the extension and adoption has some limitations:
 - ◆ A specific skill set is needed, and not always present;
 - ◆ It assumes that the project stands in isolation, and is not better extended as part of a broader package of R&D outputs;
 - ◆ Extension tends to be only a small component of the budget (noting that there are some specific extension projects with their own funding); and
 - ◆ It only happens at the very end, by which time the project has largely been completed and interest has been lost.

An example of a program of work that had not been well extended was put forward by two interviewees without prompting: R&D on ways to reduce trawler by-catch.¹⁰ We understand that this was a major investment and that it delivered potentially very-high value outputs. At least one industry has established a specific project to extend the findings to its members.

With the caveat that this present review has not specifically examined all aspects of FRDC's extension activities, we suggest that FRDC consider appointing a dedicated extension and adoption manager within the organisation (we understand this has already happened). The role of the extension and adoption manager would be to ensure that all outputs from FRDC-funded R&D (and indeed from elsewhere, where appropriate) are extended in a way that that optimises adoption and therefore maximises the return on the R&D investment. This person would not do the extension – theirs would be an oversight role to make sure that extension is being adequately addressed.

The manager would straddle the Research & Investment and Communications teams. Our preference is that they would be located within the former, because extension should form part of an innovation 'cycle' with R&D, rather than being the last activity in a linear process. However, the adoption manager would also work closely with the Communications and Engagement team.

The extension and adoption manager would need to work very closely with RACs, IPAs, industry bodies, government agencies, industry consultants and other intermediaries. It is envisaged the role would involve a large amount of domestic travel to reinforce FRDC's role in the industry. The activities of the role should be guided by a framework or strategy that might include, for example:

- ⊕ Characterisation of different types of R&D outcome, e.g. 'automatic' (regulation change), readily-adopted (uncomplicated, clear benefits, receptive audience), complex (significant behavioural change required), and pathways to adoption for each;
- ⊕ Description of distinct segments of the adopter base (e.g. aquaculture, wild catch, Indigenous, recfishing), and their particular needs, enablers and constraints;
- ⊕ Identification of the extension/adoption roles of RACs, IPAs, industry bodies, government agencies, industry consultants and other intermediaries, and their requirements of FRDC, developed in close consultation with those groups;
- ⊕ Identification of key outputs or groups of outputs not yet adopted by each segment;
- ⊕ Development of extension packages to address key gaps; and
- ⊕ A framework by which every R&D project feeds into an identified adoption pathway / package.

¹⁰ We have not investigated whether or not this was a genuine failure of extension – the example is given here because, at least to some stakeholders, it is perceived as such

APPENDIX 1: SURVEY QUESTIONNAIRE

About you

1. Please provide your name and contact details. (Note: this is optional, but any information you provide will help us to interpret the responses. We may also want to follow up with you.)
2. How would you describe yourself? (Please mark all applicable responses.)

General impressions

3. On a scale of 1-10, how well would you say that you understand how FRDC structures its partnerships and investments? This includes: the Research Advisory Committees, Industry Partnership Agreements and subprograms.
4. On a scale of 1-10, how effective are FRDC's partnerships and investment structures overall, in ensuring FRDC delivers on stakeholder priorities?

RACs

General/involvement

5. Are you, or have you ever been, a member of a Research Advisory Committee (or Fisheries Research Advisory Body)? [Go to 'outsider' or 'insider' questions.]
6. How well do you think you understand the role / function of the RACs?

RAC 'outsiders'

7. On a scale of 1-10, how effective is the RAC model in ensuring FRDC delivers on jurisdictional priorities?
8. As a RAC 'outsider', how easy is it to engage with the RAC process and to access the outputs from RAC-supported projects?
9. What could be improved in the way the RACs operate?

RAC 'insiders'

10. Which RAC(s) are you / have you been involved in?
11. On a scale of 1-10, how effective is the RAC model in ensuring FRDC delivers on jurisdictional priorities?
12. Given your experience on a RAC, how well are the RACs managed by FRDC?

For the following questions, please indicate the extent to which you agree with the statement.

13. RACs meet at a suitable frequency
14. RAC meetings are well organised and run (venue, papers, minutes etc)
15. RACs have appropriate support from FRDC staff
16. I am clear about my role as a RAC member
17. RAC input is well respected by FRDC
18. I have a good understanding of the RAC's priorities
19. I am clear about how the various processes work (calls for applications, recommendation of projects, approval processes within FRDC and so on)
20. I have good understanding of how RAC-supported projects progress
21. I have a good understanding of the outputs from RAC-supported projects and where they might be accessed
22. I have a good understanding of FRDC's strategic priorities and how the RAC helps to address these
23. I have a good understanding of how RAC activities fit with FRDC's IPAs and subprograms
24. I am able to give sufficient time and focus to my role on the RAC

25. What could be improved in the way the RACs operate?

IPAs

General/involvement

26. Are you, or have you ever been involved in, the development or implementation of an Industry Partnership Agreement with FRDC? [Go to 'outsider' or 'insider' questions.]
27. How well do you think you understand the role / function of the IPAs?

IPA 'outsiders'

28. As an IPA 'outsider', how easy is it to engage with the IPA process and to access the outputs from IPA-supported projects?
29. On a scale of 1-10, how effective is the IPA model in ensuring FRDC delivers on industry priorities?
30. What could be improved in the way the IPAs are developed and implemented?

IPA 'insiders'

31. Which IPA(s) have you been involved in?
32. On a scale of 1-10, how effective is the IPA model in ensuring FRDC delivers on industry priorities?
33. Given your experience with an IPA, how well are the IPAs managed by FRDC?

For the following questions, please indicate the extent to which you agree with the statement.

34. IPAs are a good mechanism for ensuring RD&E meets specific sector needs
35. The process for developing IPAs is thorough and ensures good sector input
36. IPAs have appropriate support from FRDC staff
37. IPAs are appropriately respected by FRDC
38. I am clear about how the various processes work (calls for applications, recommendation of projects, approval processes within FRDC and so on)
39. I have good understanding of how IPA-supported projects progress
40. I have a good understanding of the outputs from IPA-supported projects and where they might be accessed
41. I have a good understanding of FRDC's strategic priorities and how the IPA fits in with these
42. I have a good understanding of how IPAs fit with RACs and with FRDC's subprograms

43. What could be improved in the way IPAs are developed and implemented?

Subprograms

General/involvement

44. Are you, or have you ever been, directly involved in any of FRDC's subprograms? [Go to 'outsider' or 'insider' questions.]
45. How well do you think you understand the role / function of the subprograms?

Subprogram 'outsiders'

46. As a subprogram 'outsider', how easy is it to engage with the subprogram process and to access the outputs from subprogram-supported projects?
47. On a scale of 1-10, how effective is the subprogram model in ensuring FRDC delivers on stakeholder priorities?
48. What could be improved in the way the subprograms operate?

Subprogram 'insiders'

49. Which subprogram(s) are you / have you been involved in?
50. On a scale of 1-10, how effective is the subprogram model in ensuring FRDC delivers on stakeholder priorities?
51. Given your experience with a subprogram, how well are these managed by FRDC?

For the following questions, please indicate the extent to which you agree with the statement.

52. Subprograms are a good mechanism for ensuring RD&E meets cross-sector needs
53. There are subprograms to address all of the relevant cross-sectoral issues
54. Subprograms have appropriate support from FRDC staff
55. Subprograms are appropriately respected by FRDC
56. I am clear about how the various processes work (calls for applications, recommendation of projects, approval processes within FRDC and so on)
57. I have good understanding of how subprogram-supported projects progress
58. I have a good understanding of the outputs from subprogram-supported projects and where they might be accessed
59. I have a good understanding of FRDC's strategic priorities and how the subprograms help to address these
60. I have a good understanding of how subprograms fit with the RACs and IPAs

61. What could be improved in the way the subprograms operate?

Collaboration

62. On a scale of 1-10, how well does FRDC facilitate collaboration among RACs, IPAs and subprograms?
63. Please explain why you gave this score.
64. What could be done to enhance collaboration between RACs, IPAs and subprograms?

FRDC's investment framework for RD&E

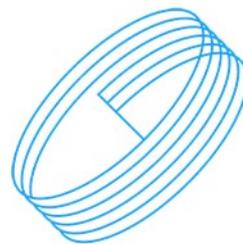
65. Related to its partnership model, FRDC also has a 'framework for RD&E investment' that describes the organisation's overall funding priorities. This framework is summarised in the above diagram, which appears in FRDC's Research, Development and Extension Plan 2015-20. On a scale of 1-10, how well would you say that you understand how the five Programs (Environment, Industry etc), National Priorities, National RD&E Infrastructure, Partnerships and the 'Lead / Collaborate / Partner' approach fit together?

Extension and adoption

66. On a scale of 1-10, how well does FRDC ensure the optimal adoption of outcomes from R&D, through extension or other means?
67. Please explain why you gave this score.
68. If you believe FRDC could do better in ensuring adoption of R&D outcomes, what needs to change? (please choose as many as you agree with – or none!)

Final comments

69. Do you have any final comments you would like to make about FRDC's partnership or investment structures?



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