



The Australian Council of Prawn Fisheries RD&E Plan provides a framework to identify the key strategic research needs of the sector from 2016 – 2020.

Australian Council of Prawn Fisheries RD&E Plan

Research, Development and
Extension Plan 2016 – 2020

1st June 2016

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1. CONTEXT

1.1 FRDC RD&E INVESTMENT PROGRAMS

The FRDC has five RD&E investment programs that directly align with its governing legislation, the PIRD Act. RD&E investments across these program areas will be assessed to ensure the FRDC maintains a balanced portfolio that meets the short and long term needs of its stakeholders, including the Australian Government and the Australian community. The programs include:

Environment

This program relates to RD&E that supports natural resource sustainability in managing fishing and aquaculture activities in Commonwealth, state and territory waters. Many components of FRDC-funded RD&E focus on improving the sustainable use of Australia's aquatic resources.

Industry

This program relates to RD&E that assists the production and value of seafood. It could be in the form of business profitability, international competitiveness, opportunities for productivity increases, resource access, and experience or wellbeing benefits. This program aims to help all sectors improve their overall performance.

Communities

This program relates to RD&E that maintains the long-term sustainability of the commercial sector by understanding the interactions and co-dependence between fishing and aquaculture, and the wider community. It is enhanced by knowledge about the social importance of fisheries.

People

This program relates to RD&E that is needed to attract and advance people who will lead fishing and aquaculture towards a sustainable and profitable future. The FRDC has taken a strong role in this area, from employing and developing young researchers, through to facilitating access to leadership development for all sectors of fishing and aquaculture.

Adoption

This program relates to how project outputs are delivered so they can be easily adopted and support stakeholder decision making and practices. The FRDC continually works with researchers and end users to determine and implement the best way of extending these results. In addition, the FRDC is continuing to develop its systems to ensure its 'knowledge bank' is widely accessible.

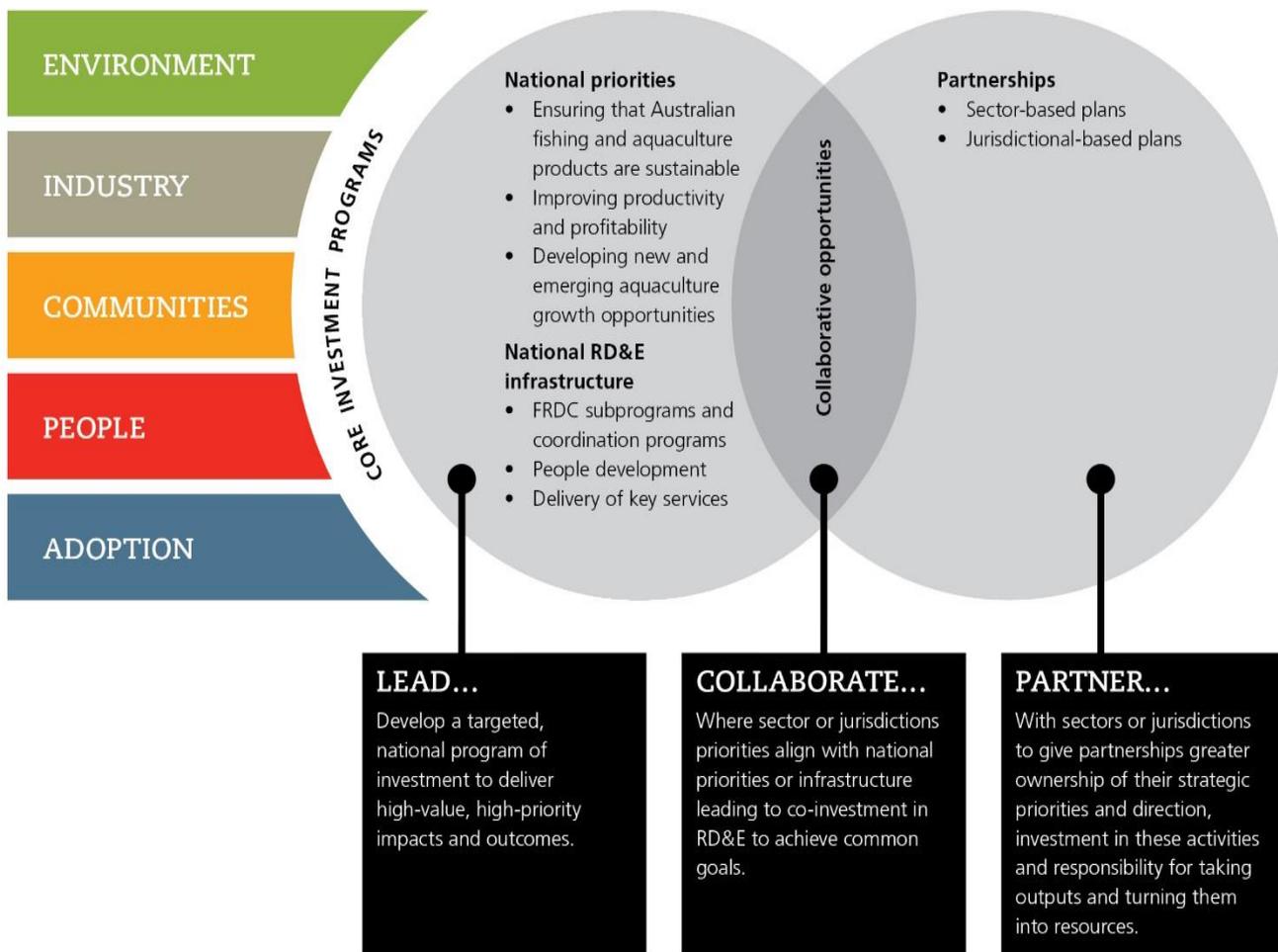
1.2 CO-MANAGEMENT INVESTMENT MODEL

Under the FRDC's RD&E Plan 2015 - 2020, the FRDC provides greater ownership and authority to industry sectors in developing RD&E priorities, through Industry Partnership Agreements (IPAs) and to jurisdictions through Research Advisory Committees (RACs) - formerly Fisheries Research Advisory Bodies (FRABs).

A key component of this investment model is the development of a multi-year RD&E Plan for each IPA and RAC aligned with the FRDC's 5-year RD&E Plan. This will assist in developing a tailored RD&E program that:

- meets both jurisdictional and national strategic RD&E priorities
- is balanced across FRDC programs (environment, industry, communities, people and extension)
- focusses on short, medium and longer term RD&E outcomes
- is supported by a consistent RD&E planning framework across all RACs.

The framework for RD&E investment by the FRDC for 2015–20.



2. OPERATING ENVIRONMENT

2.1 OVERVIEW

The Australian Council of Prawn Fisheries (ACPF) was first initiated in 2000 to foster development of the wild capture prawn fishing industry through a national strategic approach.

The ACPF is committed to developing innovative management arrangements to be profitable, to deliver safe, high quality wild catch prawn products to the Australian community and to safeguard after our marine environment for future generations. Membership of the ACPF is comprised of individual fishers/fishing companies, prawn fishery associations and other companies that deal with prawns or the prawn industry (eg processes/marketers).

The ACPF industry members have a reputation of delivering safe, premium grade wild catch prawns to consumers, seafood markets and wholesalers, retailers, fish shops, restaurants and overseas buyers.

The ACPF aims to:

1. Represent the industry nationally and present a unified case to government for change that will develop the wider industry.
2. Build the positive reputation of the wild catch professional prawn fishery within the Australian public and marketing circles.
3. Work in partnership and form alliances within the prawn sector to communicate learnings on all activities and to better position product.
4. Develop leadership capacity within the industry to drive positive change, champion initiatives, communicate learnings and represent industry.
5. Work in partnership and form alliances with other seafood organisations that have goals of positioning our product nationally and internationally, to ensure ecological sustainable fishing practices, and to safeguard our resources for food security.
6. Coordinate industry planning with national initiatives, such as seafood market development including promotion, marketing, research and value-adding.
7. Coordinate the development of generic programs for the prawn industry and within wider strategic alliances.

Prawn Fisheries

There are around 15 major prawn fisheries around Australia, harvesting any number of species of prawns. The main catch of Australian prawns available are Bananas, Schoolies, Tigers, Kings, and Endeavours. There are sub-species of these eg brown tiger's versus giant tiger's versus grooved tiger's. Each fishery targets different species, and in some cases this is dependent on the time of year and which species are most abundant. Nearly all prawn fisheries catch multiple prawn species, while only a few target one particular species.

Australian wild catch prawns are available all year round, throughout Australia, although some seasonality does occur with catches, depending on the fishery. Catches are generally processed on board vessels, producing the best tasting and freshest product available. Prawns can be either cooked while at sea or packaged raw (green) for use in home cooking. They may also be processed so that the shell has already been removed convenience.

2.2 DRIVERS, CHALLENGES AND OPPORTUNITIES

In 2016 the ACPF established an Industry Partnership Agreement (IPA) with the FRDC. The IPA will enhance Members' returns from pre-competitive RD&E investments through improved flexibility, financial leverage and overall investment performance.

The IPA documents a joint investment plan across a suite of ACPF RD&E projects over a specified time period. The IPA will identify forward projects, budget allocations, Member contributions, and FRDC "matching" funds. IPA's have been established by a number of large seafood sectors.

An IPA is an agreement between the FRDC and a sector body (e.g. ACPF) to manage a sector RD&E program or a suite of sectoral RD&E projects over a specified time period. IPAs have a budget allocation, based on forecast contributions, and FRDC "matching" contributions, (less an 8% FRDC service fee). Under an IPA the FRDC partners with an industry sector to deliver against that sector's RD&E Plan. The obligations of the parties signing an IPA are detailed in the signed Agreement.

ACPF Members anticipate a number of advantages to their sector from an IPA, including:

1. A clear and direct path from Industry's Strategic Plan (short, medium and longer term priorities), and RD&E investment projects over the next 5 years,
2. Committed funding by industry and FRDC to RD&E investment plans over the next 5 years,
3. Greater industry input to and responsibility for managing its RD&E Investment portfolio and RD&E projects, based on agreed performance indicators,
4. Greater flexibility for industry in the types of investments that can be made, and a quicker path from idea to contract,
5. Opportunity for industry to bring proposals to FRDC three times a year, compared to the previous once-a-year annual competitive round.
6. RD&E that can be linked to market outcomes (e.g. market research but not marketing itself)
7. Final confirmation between ACPF and FRDC regarding the source and use of industry and matched funds.

3. RD&E PLAN 2016 – 2020

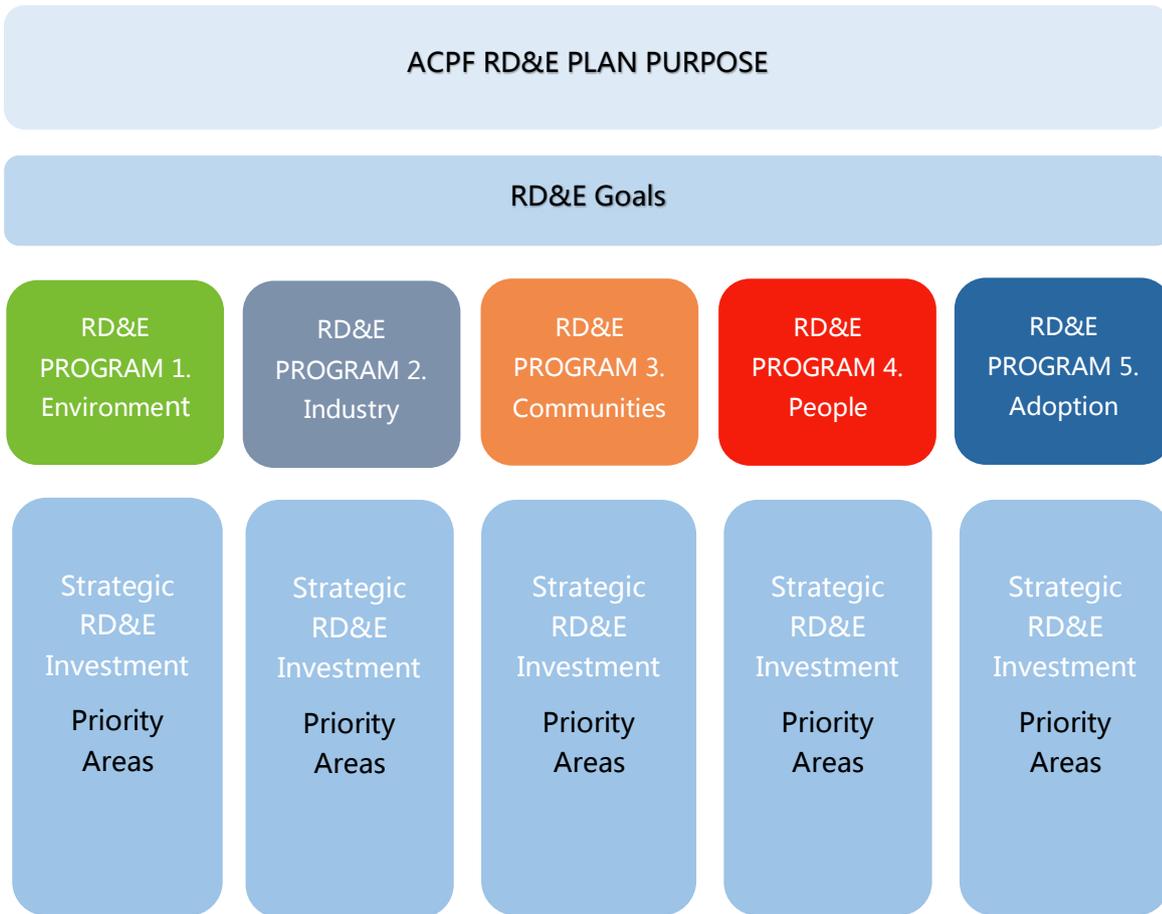
3.1 PURPOSE

The ACPF RD&E Plan provides a framework to identify the key strategic research needs of the wild catch prawn sector under its jurisdiction for the 5 year period from 2016 – 2020.

The RD&E Plan aims to ensure that the research program meets both sector and, where appropriate, national strategic RD&E goals and addresses the major challenges facing the wild capture prawn fishing industry.

Where possible, this plan will link with other related strategies to enable efficiency and leverage opportunities e.g. other RACs, FRDC subprograms, FRDC coordination programs and sector based (IPAs) programs.

3.2 FRAMEWORK OVERVIEW



3.3 GOALS

1. Secure access based on continuous improvement in the sustainable management of our fisheries resources and the marine environment
2. Consistent and stable gains in prawn prices
3. Real increases in harvest and prawn supply chain efficiency
4. Real increases in consumer awareness of Australian wild catch prawns
5. Respected and professional leadership
6. Adoption of knowledge and technologies by industry, researchers, government and the community to realise the ACPF mission.

RD&E Program 1. Environment

External impacts to prawn fisheries

Outcomes:

- Information provided on impacts from external interactions on prawns and associated habitats
- Better understanding of environmental drivers of prawn production (eg spatial variability due to climate change)
- Water regulators and other stakeholders (eg marine planning groups) informed on fishery impacts
- Adaptations implemented for spatial variation due to climate variability
- Improved engagement with other stakeholders and agreement on actions required to address impacts
- Improved integrated marine management

Improving and demonstrating environmental performance including bycatch mitigation, benthic performance and carbon footprint

Outcomes:

- Reductions in bycatch achieved
- Code of Conduct/Best Practice for bycatch management developed for wild capture prawn fisheries
- Increased understanding of relationships between trawl system functions and bycatch mitigation technologies to bycatch reduction
- Access to resource maintained by demonstrating environmental sustainability (eg provision of data)

Best management practice including Responsible Fishing Schemes

Outcomes:

- Continual improvement in the environmental performance of Australia's wild capture prawn fisheries
- Community and regulatory support for the environmental management practises implemented
- One Australian Prawn fishery develops and trials a responsible fishing scheme

RD&E Program 2. Industry

Develop prawn market and supply chains including data streams

Outcomes:

- Supply chain efficiency gains documented for wild catch prawns
- Traceability systems (eg boat to plate) implemented to identify provenance
- Sales data obtained to better understand domestic and international markets
- Increased consumption of Australian wild caught prawns
- 20% real increase in beach prices for Australian wild catch prawns over the 10 year period to 2025

Develop and improve prawn fleet vessel and harvest efficiency

Outcomes:

- Increased understanding and adoption of energy efficiency options
- Adoption of available technologies (eg new boat designs, electronics, trawl gear) to improve harvesting efficiency
- Fishing practises targeted at improving CPUE adopted

Post-harvest efficiency

Outcomes:

- At-sea processing innovations/improved practises developed
- 3 new products developed
- New Packaging alternatives trialled and adopted (eg smaller pack sizes at sea/on board)
- Shelf life improvements realised (eg practices and better preservation substances)

RD&E Program 3. Communities

Understand and engage with consumers and the community

Outcomes:

- Methods for surveying and engaging consumers and the community developed
- Sales and consumer survey data utilised to improve understanding of consumer requirements and inform ACPF investments

Enhance consumer and community perception of the wild catch prawn industry

Outcomes:

- Appropriate tools and mechanisms developed to inform community perception (eg through LAP, events, social media, focus groups, synergistic partners)
- Programs targeted at enhancing the provenance of the wild capture prawn sector developed and implemented
- Improved consumer satisfaction and community support through better understanding of the sector
- Ongoing resource access

RD&E Program 4. People

Support and increase industry capacity

Outcomes:

- Online training programs developed
- Prawn fishers undertaking skills based courses (eg leadership, media and governance, industry based courses)
- ACPF Board 'Directors' training undertaken

Information and exchange programs

Outcomes:

- Exchange of information and knowledge between fishing sectors increased (eg programs, mentoring)
- 2 international experts visit Australian prawn fisheries

Improve personnel welfare and industry productivity

Outcomes:

- Safer work place practices adopted
- increased uptake of co-management
- Improved crew retention

Actively train, lead and engage fishers and employees to communicate their wild catch sector

Outcomes:

- Social media training undertaken by industry
- Training provided for community and consumer engagement programs

RD&E Program 5. Adoption

Communicate the benefits created by the wild prawn sector

Outcomes:

- Appropriate methods identified and implemented to communicate with the community and consumer
- Material developed for inclusion in Primary Industries Education Foundation Australia schools curricular

Develop dialogue with the broader seafood industry, other marine resource users, FRDC, agencies, NGOs, and other external stakeholders.

Outcomes:

- Improved engagement with other stakeholders and agreement on actions to further the interests of the wild catch prawn sector
- Exchange of information and knowledge between fishing sectors increased

Communicate RD&E outputs in the appropriate format to hasten adoption

Outcomes:

- Commercial partners engaged during application development
- 'Fit for purpose' information delivered
- R&D outputs adopted

Communicate information on prawn supply and supply chains, quality and market data

Outcomes:

- Sales, consumer survey and supply chain data communicated to ACPF members
- Relevant data considered in development of marketing campaigns

3.4 STRATEGIC RD&E INVESTMENT PRIORITY AREAS

1. **Continual improvement of the environmental performance of Australia's wild capture prawn fisheries**
 - Understand, design and implement a program with specific KPIs to manage, communicate and reduce the carbon footprint of Australian prawn fisheries.
 - Develop methods and measures to monitor and manage:
 - Bycatch rates and reduction initiatives
 - Benthic performance of prawn trawl fisheries
 - Use of 2nd and 3rd party accreditations of prawn fishery performance
 - Understand the benefits of environmental certification to demonstrate minimised marine impacts
 - Explore Responsible Fishing Schemes to demonstrate to the public our Members' social license to operate.
2. **Achieve a 20% real increase in beach prices for Australian wild catch prawns over the 10 year period to 2025.**
 - Understand the requirements and develop information and strategies to target wholesaler and consumer markets both domestically and export, including through the Love Australian Prawns (LAP) program and other ACPF initiatives.
 - Understand and develop prawn market and supply initiatives and data streams to monitor and enhance beach price and margin data received by ACPF Members.
3. **Achieve real gains in prawn harvest and supply chains, through operational and cost of production efficiencies.**
 - measure, develop and improve prawn fleet vessel and harvest efficiency, including energy and freezing efficiency.
 - Develop a postharvest efficiency program to:
 - Enhance fishery wide product handling and food safety standards
 - Promote use of standard value adding techniques and new technologies
 - Encourage chain investment in product traceability and integrity systems
 - Understand and improve efficiencies in the supply chain
 - Explore potential for new products and enhancing shelf life
4. **Improve the public's image of ACPF fisheries, evidenced by rising consumer demand and prices, and awareness of LAP and other industry programs.**
 - Understand and engage with consumers initially on the back of the LAP program.
 - Understand and enhance the consumers' and the community's image of wild caught prawns and related fishery provenance and product credence opportunities.
5. **Increased capacity and capability of members to foster a strong ACPF and wild catch prawn industry sector.**
 - Identify and support wild prawn sector candidates in career and leadership development
 - Develop information exchange mechanisms and exchange programs to share knowledge internationally
 - Develop programs and training tools to improve personnel welfare and industry productivity
 - Actively train, lead and engage fishers and employees to communicate their wild catch sector as a proud, sustainable and professional supplier of world class seafood

6. Knowledge is transferred and utilised by the required audience

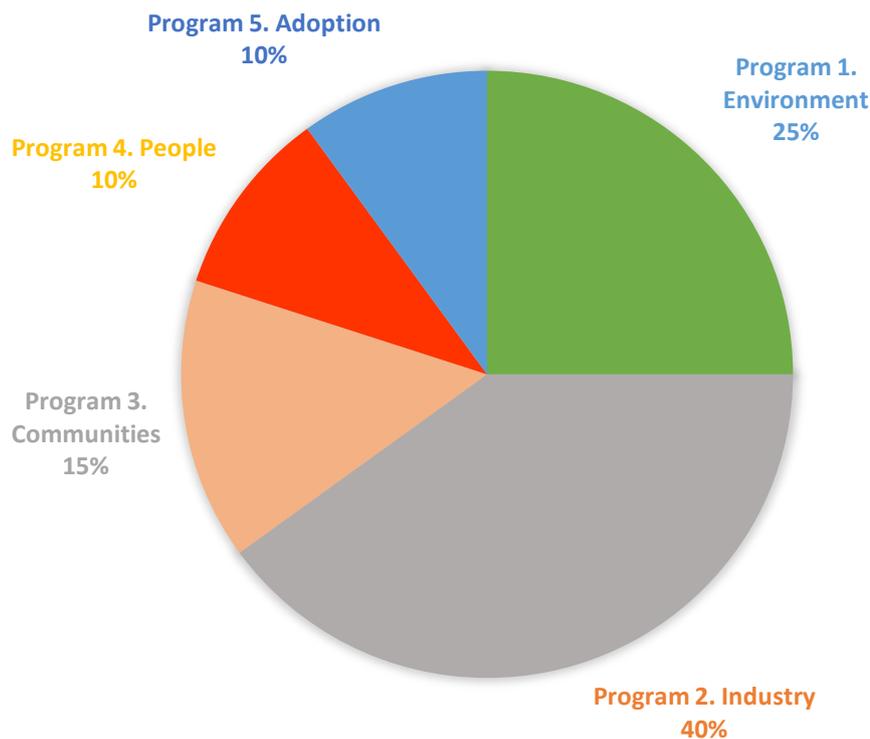
- Document and communicate the value created by the wild prawn sector
- Develop dialogue with the broader seafood industry, other marine resource users, FRDC, agencies, NGOs, and other external stakeholders.
- Communicate RD&E outputs in the appropriate format to hasten adoption

Collate, analyse and communicate information on prawn supply and supply chains, quality and market data to ACPF Members

3.5 FORECAST ACPF INVESTMENT ACROSS STRATEGIC RD&E PRIORITIES

It is intended to achieve a balanced portfolio with national pooled funds between 2016 – 2020 as outlined below. Each investment year may differ from these averages. Consideration needs to be given by the jurisdiction on the level of industry contribution and public good funds available. (FOR EXAMPLE SEE P44 TABLE 3. FRDC RD&E PLAN 2015 – 2020 - AND CONVERT INTO PERCENTAGES.)

ESTIMATED ALLOCATION OF ACPF FUNDING ACROSS PROGRAM AREAS 2016 - 2020



4. RD&E PLAN Guidelines

4.1 INVESTMENT COLLABORATION

The RAC's are to be mindful of collaborative opportunities with external funding sources (other than the FRDC) as well as collaboration between the jurisdictional RACs, IPAs and FRDC subprograms. This collaboration occurs through the sharing of RD&E Plans as well as the results of priority planning processes. The annual planning workshop provides a forum for the sharing of these priorities to promote collaboration.

Collaboration provides the opportunity to share investment across common areas of interest and promote RD&E execution efficiency.

4.2 EXTENSION

Extension processes are embed into all FRDC-funded RD&E. How results can be extended begin when a project is approved for funding, are considered in the design and proposal phase where priorities for end users are determined, continue during the project's execution through to the final published report. This is often easier for short-term applied research but needs to be more considered for longer-term, blue-sky research.

On 23 April 2010, the Primary Industries Ministerial Council (PIMC) approved a National Strategy for Fishing and Aquaculture Research, Development and Extension (RD&E) which establishes the future direction to improve the focus, efficiency and effectiveness of RD&E to support Australia's fishing and aquaculture industry.

The FRDC have adopted these as key principles with regards to encouraging and promoting Extension and Adoption. They are:

Principle 1: All stakeholders to value extension and adoption activities in the same way as research activities.

Principle 2: Extension will be a key focus in research project development

Principle 3: Project knowledge and outputs are actively managed

Principle 4: Effectiveness and impact of project extension activities are evaluated

Principle 5: Extension and adoption capacity is maximised and built upon.

It best practice for project managers to have given some thought to how the project outputs will be used and adopted by end users while developing the application. It is a FRDC requirement that an Extension and Adoption Plan is developed and submitted for each project.

4.3 EVALUATION OF PROJECTS

The FRDC has adopted the Commonwealth input, output, outcome reporting framework policy. The Department of Finance and Deregulation has determined that the FRDC's planned outcome is *Increased knowledge that fosters sustainable economic, environmental and social benefits for the Australian fishing industry; including indigenous, recreational, commercial and aquaculture sectors, and the community; through investing in research, development and adoption.* The FRDC's performance is measured against its ability to deliver this outcome.

The success of the RAC's planning, investment, management and adoption is measured by an evaluation framework that is based on adaptive management. The structure of the evaluation framework is as follows:

- A planning process that ensures investment is made against priorities where research can contribute to a significant improvement.
- An annual report evaluating the performance of individual projects against the targets in the RD&E Plan.

The FRDC has implemented the Rural RD&E Corporation Evaluation Framework methodology to achieve the total portfolio evaluation assessment. This is based on a rolling series of cost benefit analysis of project clusters (based on previous 5 years investment). The results of the project cluster assessments links to the agreed KPIs that are relevant to that cluster. This process ensures that the investment decisions are continually being adjusted to ensure optimal investment performance. In this ongoing evaluation, the FRDC will measure the performance of RAC investments after the life of its RD&E Plan.

During the life of the RD&E Plan, the RAC should self evaluate its performance against its identified Priority Areas as well as monitoring investment to ensure balance in investment across the FRDCs 5 programs. This is to be aligned with the prioritisation and RD&E Plan review processes undertaken in the October RAC meeting.

4.4 REVIEW OF THE RD&E PLAN

Annually, the RAC will review their RD&E Plan. This will occur at the October RAC meeting. The Plan will be reviewed to:

- assess performance against the identified Priority Areas of the Plan
- identify gaps against the Priority Areas of the plan
- determine priority areas for investment against these gaps

These annual plans will be circulated to all FRDC subprograms and partnership agreements unless it is deemed that there are areas of sensitivity, IP protection or commercial advantage that require protection.

At the beginning of December each year, the FRDC will hold an annual workshop for all RACs, Industry Partnership Agreements and National Initiatives to provide updates on priority areas for investment and any potential overlap and collaborative opportunities for the coming financial year.

The RAC, at each meeting, should also undertake a situational scan of the jurisdiction to identify any tactical or immediate areas of RD&E need that require short term or immediate remediation.