



**FRDC**

FISHERIES RESEARCH &  
DEVELOPMENT CORPORATION

# **2019 review of the FRDC investment in People Development**

**Anwen Lovett**

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In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

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# Abbreviations

IPA – Industry Partnership Agreement

RAC – Regional Advisory Committee

IRG – Indigenous Reference Group

RDC – Rural Research and Development Corporation

PD – People Development

R&D – Research and Development

RDE – Research, Development and Extension

# Definitions

Fisheries and aquaculture – refers to the sector that includes commercial and recreational wild catch, aquaculture, post-harvest, indigenous, fisheries management, researchers and community ngos, who all have an interest in a sustainable future for Australian fisheries.

# Executive Summary

FRDC has a significant and long-term commitment to supporting the development of people in fisheries and aquaculture. The current guide for investment is the People Development Program Plan 2013-2015. This review has been undertaken to consider progress against that Plan and to provide advice about what the future goals of a FRDC people development program could be.

FRDC invests in people to assist in the delivery of its priorities in Environment, Industry and Communities and to support Extension. Investing in people assists in the future-preparedness of the fisheries and aquaculture sectors and is a core requirement of successful succession planning. It ensures that there is a pipeline of individuals who are representative of the diversity of the sector, understand how to engage with other sectors and the community beyond the boundaries of fisheries and aquaculture and who are equipped to take up leadership roles.

FRDC's primary intent for investment in developing people was that it be integrated within other streams of investment. However, consistent under-prioritisation of developing people in project selection processes, led to FRDC operating a dedicated People Development Program since 2005. At that time the FRDC Board determined that the activities supported by FRDC in developing people were not adequate to address the people development challenges identified in the Research & Development (R&D) Plan. In 2006, targeted investment was less than 5% of R&D expenditure. In 2007 a project manager was recruited to develop and implement a focused people development program, and a five-year plan 2008-2013 was approved.

A People Development Advisory Panel was established in 2007 to guide investment, which operated for five years. Annual investment rose to around \$2 million per annum which was 10% of R&D expenditure.

The People development program has operated differently to other FRDC programs in that it has been managed internally, with a discrete budget through an annual operating plan, as well as investing through normal competitive funding processes. One reason for this approach was to overcome barriers to investment, where people development applications were consistently ranked as a low priority, even though it was identified by stakeholders as a high priority.

The 2012-13 Inovact Consulting conducted a review and recommended that the FRDC's People Development Program continue over the next five years as a distinct Research, Development and Extension (RDE) program with an appropriate budget to invest in targeted activities to significantly advance people development across the industry and/or leverage increased value from people development investments made by other FRDC programs and sub-programs.

A People Development Program Plan 2013-2015 was prepared to provide the framework for responding to the Inovact recommendations. In 2013 the Advisory Panel ceased meeting.

In 2015 FRDC asked Industry Partner Agreements (IPAs), subprograms and Research Advisory Committees (RACs) to adopt stronger roles in people development. The idea being that they were well placed to address people development needs at sector and regional level. FRDC would continue to manage major projects/investments such as the Australian Rural Leadership Program and National Seafood Industry Leadership Program and workforce development needs across the sector. During this time the FRDC overall budget also grew significantly, while people development investment remained stable at around \$2 million per annum. In 2018 the Program Manager of people development left FRDC, leading to the General Manager, R&D taking responsibility for the area.

The current review, undertaken by Anwen Lovett Consulting, was asked to consider progress since 2013. The objective being to consider the past and current FRDC People Development Program to determine which elements of it should be the focus of future FRDC investment and what should be the goals of a people development program for next 5 plus years.

FRDC has advised that it remains committed to investment which develops people in fisheries and aquaculture. FRDC asked the reviewer to take a forward-looking perspective when considering the current portfolio, particularly in terms of where and how FRDC should invest to help future-prepare fisheries and aquaculture. That includes:

- appreciating that capacity across fisheries and aquaculture sectors is not equal. The leadership and capacity skills needs, and the interventions that are most suitable will differ;
- developing leaders who can build trust with the community locally, nationally and internationally;
- individuals who have an external and globally orientated outlook;
- future-proofing skills and capabilities in fisheries and aquaculture; and
- enabling the sector to find value and competitive advantage from the rapid digital, Internet of Things and technological revolution which continues world-wide.

The review was conducted from November 2018 until February 2019. The approach taken included a desktop review and evaluation of existing FRDC investments in people development, other related investments in people by other organisations and telephone interviews with 25 stakeholders including FRDC staff, graduates of FRDC supported leadership programs, research providers and other fisheries and aquaculture sector members. A list of stakeholders interviewed is in Appendix 1.

The key outcome of this review was a positive endorsement of FRDC's leadership role in developing people and that this must continue in the future. FRDC stakeholders consider FRDC to be "the mother ship" organisation for assistance and expertise in identifying and pursuing opportunities to develop people. FRDC is thought to be ahead of the game in its awareness of and durable commitment to investing in people.

More recently there has been a dissipation in the level of internal attention FRDC has directed toward people development. This is in part due to staff changes but also the devolution of some people development responsibilities to IPAs, subprograms and RACs.

FRDC's current investments in people development are grouped in two areas: 1) Leadership and 2) Workforce Development. Support since 2013 has been around \$7.3 million invested through projects and programs. This is a conservative estimate given that only investments with >50% of funds dedicated to people development were included.

FRDC's investment in leadership includes programs like the Australian Rural Leadership Program (ARLP), the National Seafood Industry Leadership Program (NSILP), Nuffield and Catch the Drift. FRDC's support for workforce development is broad. Support includes long term funding for the Primary Industries Education Foundation Australia which works with schools. FRDC also funds conferences, bursaries and scholarships and supports technical skills, training and workshops for capacity building in partnership with governments and others when needed. In addition, FRDC supports building capacity in entrepreneurship for innovation, culture change and translation of ideas to start-ups through Fish-X <http://fish-x.com.au/>

The current FRDC portfolio is adequately represented across the leadership hierarchy and maturity levels of workforce development. There are however some areas which may benefit from increased attention. These include building science capacity and encouraging greater diversity in participation – youth, women, other cultures, indigenous and recognising that capacity is not equal across fisheries and aquaculture enabling the development of entry level and early stage leadership capability. FRDC supported leadership programs should also include capacity needs such as global perspectives, collaboration, entrepreneurship and innovation business development.

There also continues to be a mis-match between stakeholders saying people development is important with the level of funding and commitment to participate overall being low. While IPAs and RACs were

charged with leading on people development within sectors and regions, outcomes according to stakeholders have been variable and in some cases weak.

There is therefore the opportunity for FRDC to re-engage in its leadership function of people development. This review is recommending a Statement of Intent supported by an implementation and evaluation framework. It is also proposed that FRDC enhances its coordination and information sharing functions in people development, which will assist in increasing awareness, motivating increased rates of application and participation. A stronger coordination and communication function by FRDC will also assist IPAs, RACs and subprograms to engage more strongly in developing people.

The summary of recommendations provided here give a pathway for implementation of a renewed focus on people development by FRDC. More detailed actions to enable implementation of the recommendations can be found on page 17. Given that FRDC has initiated the process to develop its next Strategic Plan it is recommended that the current portfolio of activity in people development continues, with FRDC's commitment to long term Programs re-evaluated in the context of the new Plan once it is in place.

There following actions which FRDC could implement now and during 2019 which would assist in advancing people development:

They are:

1. Establish a Statement of Intent;
2. Recruit a part-time coordinator, with the appropriate expertise to bring focus and leadership into the Program. The coordinator can be an employee or consultant;
3. Launch and maintain an up to date online schedule of people development opportunities, which all sector members can access and contribute to;
4. Develop for the web a set of consolidated learning materials from FRDC projects which are accessible for all fisheries and aquaculture users. Examples include materials from NSILP, Fish-X, MAC and Veterinary Training materials
5. Commission an Independent Review of Impact for the last 5 to 10 years of FRDC investment in people development;
6. Consult with IPAs, RACs and subprograms about the assistance they require from FRDC to overcome barriers to stronger engagement in people development;
7. Maintain investment in ARLP, Nuffield, NSILP and PIEFA Programs until the new Strategic Plan is complete;
8. Explore pathways to build the diversity of engagement of people in fisheries and aquaculture, including indigenous, other cultures, women and youth. Recognise that current pathways may work as impediments. Specific interventions may be needed (for example IRG Capacity Building Program) to increase diversity in participation;
9. Consider supporting one or two grants/scholarships to pilot FRDC participation in Young Farming Champions, Horizons and Milparanga (subject to IRG support);
10. Offer top-up grants for PHDs and Post Docs and potentially Honours. Explore the attractiveness and feasibility of an FRDC Student Internship Program. Including opportunities for international experience;
11. Engage with FRDC Strategic Plan development.

# Introduction

People Development in FRDC, is an enabling activity that focuses on the human elements needed to achieve identified fisheries and aquaculture outcomes. FRDC invests in people to assist in the delivery of its priorities in Environment, Industry and Communities and to support Extension. While the primary intent is for developing people to be integrated within FRDC's other streams of investment, consistent under-prioritisation of developing people in project selection processes, led to FRDC also adopting a dedicated focus through the People Development Program.

Investing in people is important to future-preparedness of fisheries and aquaculture. Capability building is a core strategy in the succession planning of any sector. It ensures that there is a pipeline of individuals representative of the diversity of the sector, who are externally and globally orientated, and have leadership and professional capabilities which equips them to take up leadership roles at all levels of the fisheries and aquaculture sectors.

The People Development Plan 2013-2015, sets out a guide for FRDC investment in four areas:

1. People development investments are clearly supporting industry's RD&E priorities.
2. The professionalism of the industry is raised.
3. Innovation is nurtured – to find better ways of doing things.
4. There is improved capacity to put innovation to work – to adapt and adopt knowledge, skills and technologies.

FRDC delivers its People development program differently to other FRDC programs in that it is managed internally, with a discrete budget through an annual operating plan, as well as investing through normal competitive funding processes. A primary driver behind this approach is the need to overcome barriers to investment, where people development applications are consistently ranked as a low priority, even though it is identified by stakeholders as a high priority.

Five years since implementation of the 2013-2015 Plan, this review has been initiated to determine progress against that Plan and to provide advice on future-proofing FRDC investments in people. FRDC holds a significant body of investment which can be attributed to people development. There is a broad awareness of the Program, with most stakeholders advising that they support FRDC taking a lead role for fisheries and aquaculture in developing people.

The current portfolio of people development investments are aligned to the priority areas that were identified. Examples are:

1. *People development investments are clearly supporting industry's RD&E priorities.*  
The FRDC Human Dimensions Program (2017-2020) collaborates with FRDC's five program areas to ensure that *human dimensions* being social, economic and cultural factors which affect or affected by Australia's fisheries are taken into account in investment decisions. In 2016 a report that developed pathways for FRDC to engage with Vocational and Tertiary Education Pathways for the extension of RDE was completed.
2. *The professionalism of the industry is raised.*  
FRDC funds industry-wide leadership development including the National Seafood Industry Leadership Program (NSILP), Australian Rural Leadership Program (ARLP) and annual Nuffield Farming Scholarships. FRDC has also provided long term support to PIEFA which engages with students in schools. FRDC also delivers training schemes to improve knowledge and skills when needed. In 2016 a Skills and Capability needs Report for Fisheries and Aquaculture was completed.

3. *Innovation is nurtured – to find better ways of doing things.*  
FRDC provides annual sponsorship to the ABARES Science and Innovation Awards for Young People – This award encourages young scientists to develop careers in fisheries and aquaculture. Travel bursaries and scholarships are also available. FRDC is also part of Fish 2.0 and is sponsoring the Australia-Pacific Forum in April 2019. Fish 2.0 builds connections in the seafood sector worldwide, building new business models and creating connections with investors.
4. *There is improved capacity to put innovation to work – to adapt and adopt knowledge, skills and technologies.*  
FRDC supports bursaries for researchers and sponsors visiting experts to build and share knowledge. It also motivates innovative ideas through investments such as Fish-X, a program which aims to stimulate a more outward focus among fisheries and aquaculture members, to build an externally connected, entrepreneurial mindset. Fish-X builds and mentors individuals / teams to tackle industry problems in innovative ways.

This review has taken a forward-looking approach to considering the current portfolio against the 2013-2015 Plan and has also considered investments in terms of future needs. In particular, where and how FRDC should invest to help future-prepare fisheries and aquaculture. It ensures that there is a pipeline of individuals who are representative of the diversity of the sector, understand how to engage with other sectors and the community beyond the boundaries of the sector, including international, and who are equipped to take up leadership roles.

# Recommendations

## Recommendation 1: Statement of Intent

It is recommended that FRDC prepare a one-page Statement of Intent for People Development in which the objectives, outcomes and measures of success are outlined. It should include a commitment to a collaborative approach which engages with IPAs, IRG Sub-programs and RACs, and external partners. See Figure 1. The Statement of Intent should be used as the guide for investment during the next 18 months while FRDC prepares its new Strategic Plan. Once the new Strategic Plan is complete the Statement may need to be amended to achieve alignment with the new Plan, ensuring people development enables FRDC to achieve its Strategic goals.

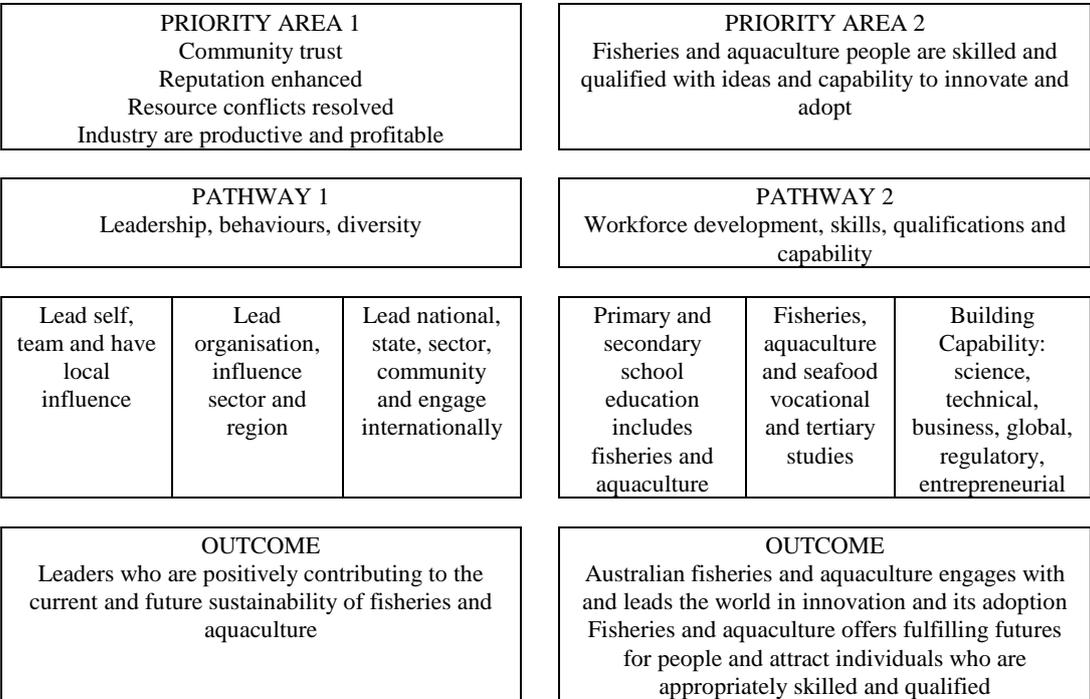
## Recommendation 2: Priority Focus Areas

Under the Statement of Intent it is proposed that investment be made in two Priority Focus Areas:

- i. Building leadership capacity across fisheries and aquaculture, including fostering of diversity to build and maintain community trust;
- ii. Building and enabling professional capacity to secure access to and attract qualified, skilled, innovative and entrepreneurial people who can service fisheries and aquaculture.

These focus areas are co-dependent. However, they follow different but complementary pathways which enables greater clarity in purpose and the ability to evaluate impact against the investments made. See Figure 1.

**Figure 1: FRDC PEOPLE DEVELOPMENT FRAMEWORK**



## Recommendation 3: Independent Evaluation of Impact

This review has recommended an evaluation framework by which FRDC could capture measures of the impact of its investments in people development. It is recommended that FRDC commissions an Independent Evaluation of Impact during 2019. The framework for the evaluation is on Page 11. The evaluation will give evidence of impact from the last 5 to 10 years of investment and will assist in setting priorities for people development in the new FRDC Strategic Plan, including determining the future of FRDC support for ongoing Programs.

#### **Recommendation 4: Leadership**

FRDC has a strong presence in leadership development through existing programs ARLP, Nuffield, NSILP and Catch the Drift. There is an opportunity to expand the profile of FRDC support offered for leadership to better engage the pyramid of leadership capability, Figure 2. The current programs mostly support mid to upper levels of leadership, leaving youth, indigenous, other cultures, women and minority sectors within fisheries and aquaculture potentially under represented. The current suite of leadership programs may not appeal or suit the needs of these groups. FRDC could either seek alternative opportunities to expand the appeal of current programs to achieve greater inclusiveness of diversity or consider support for additional leadership opportunities targeted at those groups.

FRDC supported leadership programs should include capacity needs such as global perspectives, collaboration, entrepreneurship and innovation business development. There are also opportunities to more effectively engage FRDC alumni: for example active recruitment of alumni into FRDC representative roles on IPAs, IRG and RACs and the FRDC Board which will assist in succession planning; offering alumni's the opportunity for additional professional development; and incentivising them to be more active advocates within their own networks, including recruiting new people into FRDC people development activities.

#### **Recommendation 5: Workforce Development**

FRDC has a significant presence in workforce development. It is difficult to appreciate because delivery is through many stand-alone projects as and when there is a need. FRDC also supports conferences, workshops, bursaries and scholarships for capacity building. Completion of a synthesis and map of existing and previous (but still relevant last 5 to 7 years) FRDC support for workforce development is recommended, followed by a gap analysis against future workforce skills and capability. The gap analysis should seek the views of workforce managers/owners along with representative groups. Additional activities are also suggested including scouting for opportunities to address emerging needs – such as entrepreneurship capacity building, seeking collaborative opportunities with other RDCs, along with consulting on VET skills and resource material development needs. Adoption of these activities would strengthen FRDC presence in some areas of workforce development, particularly in terms of future workforce needs.

#### **Recommendation 6: Building Science Capability**

Building science capability is a legislative requirement of FRDC. FRDC could expand its support for research capacity through incentives for research capacity building in areas which are priorities for fisheries and aquaculture. Options include incentives for research proposals to include research capacity building outcomes, Honours, PhD and Post Doc top ups, internships and bursaries.

#### **Recommendation 7: Communication and Engagement**

FRDC is considered by fisheries and aquaculture stakeholders as a source of reliable information about opportunities in people development. FRDC could increase its effectiveness in this role by:

- maintaining an up to date schedule of people development opportunities which anyone can contribute to;
- develop for the web a set of consolidated learning materials from FRDC projects which are accessible for all fisheries and aquaculture users. Examples include materials from NSILP, MAC and Veterinary Training materials;
- look for alternate communications strategies to build connections with the cohort of people in fisheries and aquaculture who are difficult to engage due to literacy, isolation, technological capacity and level of being informed.
- an informal virtual people development forum for knowledge sharing and as a testing ground for ideas and new initiatives;
- reports at FRDC stakeholder forums;
- enabling collaboration between FRDC programs in people development, and
- increased collaboration with other RDCs, and external leadership and workforce platforms, such as Career Harvest.

### **Recommendation 8: Engage IPAs and RACs in People Development and subprograms**

A specific engagement with IPAs and RACs on people development is needed to make clear FRDC's expectations about the level of funding and resource commitment which should be directed toward People Development. Engagement could include:

- all IPAs and RACs being required to report to FRDC on people development,
- collaboration with IPAs and RACs to incentivise people development opportunities, and
- assistance to build capacity and confidence to implement people development.

### **Recommendation 9: Ongoing Evaluation**

Confidence in success from people development investment was an outcome sought by FRDC from this review. An evaluation framework aligned to the Statement of Intent and key focus areas has been developed and can be found on page 11 of this report. The outcomes of the Impact Evaluation Recommendation 3 would assist in establishing a framework for ongoing monitoring of impact.

### **Recommendation 10: Resourcing**

Much of what is required in People Development is around Coordination, Engagement, Communication and scouting and scanning for new needs and opportunities in people development as they emerge. Given that FRDC does not have a major role in delivery of people development activities, a full-time resource does not seem justified. Functions could be supported by an appropriately qualified person either as a part-time staff member or on contract to FRDC. That person could bring a dedicated focus and presence in people development for FRDC. They could also support and assist IPAs and RACs to build confidence and capability in investment in people.

# Objective

## Terms of Reference

1. Review past and current People development program to determine which elements of a people development program should be the focus of future investment
  - a. What should be the goals of the FRDC's people development program for the next 5+years.
2. Advise on the best investment structure for FRDC to invest in People Development
3. Advise on the best mechanism for FRDC to project manage a new People Development program.

# Method

This Review commenced in November 2018 and concluded in January 2019. A consultant with experience in leadership, education and training was contracted to complete the review.

Review activities included:

- Desk top review and evaluation of FRDC investments in people development;
- Stakeholder consultation – FRDC staff, research and industry members through telephone interviews. A list of stakeholders interviewed is in Appendix 1.

# Findings

This discussion of Findings is drawn from the interviews of stakeholders completed during this review and a desktop review of current investments and projects. A list of stakeholders consulted are provided in Appendix 1 and What Stakeholders Said is provided in Appendix 2.

FRDC stakeholders consistently gave positive feedback about FRDC's leadership in and long-term commitment to developing people in fisheries and aquaculture. FRDC is considered to be ahead of the game in its awareness of and commitment to investing in people.

During the last few years the level of focus and drive by FRDC has dissipated. In part due to the departure of the Program Manager, but also following the devolution of some people development responsibilities by FRDC, without clear expectations, to IPAs and RACs.

While FRDC's ongoing leadership investments are identified as being beneficial, there is poor understanding of what those investments are, what they are achieving and what else could be done to enable people development across fisheries and aquaculture.

FRDC's activities in professional development were even more poorly understood, except individuals who had directly benefitted or delivered an FRDC supported training or upskilling activity, such as those supporting technical adoption.

There is also a mis-match between stakeholders saying people development is important versus the level of funding and commitment to participate overall being low. Some of the factors which seem to lead to low investment and participation include:

- Lack of clarity about what success looks like, leading to unclear (if any) performance measures in people development, which diminishes confidence in investment.
- Unclear expectations from FRDC to IPAs, RACs and subprograms about how much FRDC funds should be committed to people development. IPAs and RACs are also not being held accountable by FRDC for investment in people development.
- Lack of clarity in commitment. Some IPAs and RACs have plans, some have it included in strategy documents, while others do not. Implementation plans are unclear.
- Intense competition within fisheries and aquaculture groups and RACs over how to utilise limited funds, with production, environment and technical issues generally being considered to be a higher priority than people development.
- Lack of knowledge of and inexperience in identification of people development needs among IPA and RAC members and secretariats, leading to a lack of confidence about how to identify, and deliver people development, leading to inaction.
- Challenges in implementation of activities and securing participation by sector members. Not only can it be difficult to generate interest and find suitable candidates, but also securing commitment to attend can also be a challenge, even when development opportunities are free.

FRDC has invested in a significant body of work in People Development. However, in its current form (embedded in Final Reports) it is not accessible or easily drawn on for use by fisheries and aquaculture stakeholders or research providers. FRDC also does not have visibility on the direct and indirect research capacity building which occurs as a consequence of FRDC R&D project investments and support for other activities such as conferences. In addition, there is a general lack of awareness about current (and ongoing) opportunities and how to participate. While FRDC does not need to invest in all people development activities, stakeholders look to FRDC as a reliable source of advice and information on people development.

# Discussion

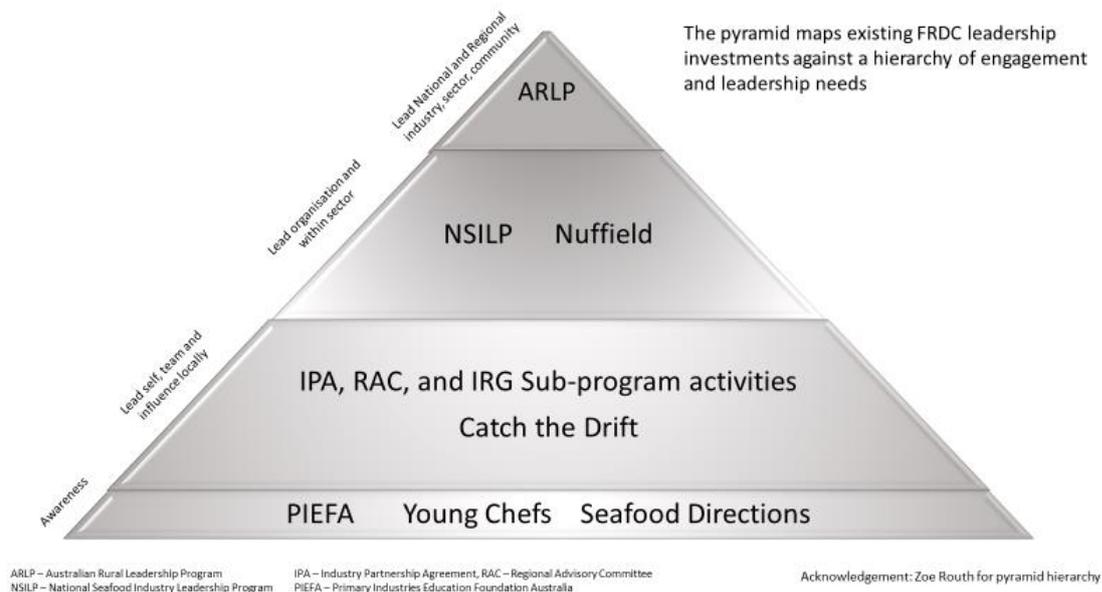
FRDC’s portfolio in people development can be grouped into two key areas: 1) Leadership and 2) Workforce Development. This Discussion provides mapping of current investments in leadership against a leadership hierarchy and workforce development against the different levels of maturity needs in skills, qualifications and capability. Investment during the period of 2013-2018 is also provided in Figure 4 to show where investment has been directed in terms of categories in leadership, capacity, skills and training.

Existing commitments in people development have also been summarised along with the reviewer’s comments about each activity. A more detailed table of each investment, its objectives and outcomes is provided in Appendix 3.

## Mapping Investment in Leadership and Workforce Development

FRDCs investment in people development has been mapped for leadership against an FRDC leadership hierarchy and for workforce development against capability needs at each level of maturity. FRDC’s presence in leadership activities are easy to identify. Figure 2 shows FRDC support for leadership against the pyramid of FRDC leadership hierarchy<sup>1</sup>. What is evident is that most of FRDC investment is in the mid to higher levels of leadership while the early stage of leadership development has been devolved to others. It should be noted that the leadership hierarchy for different regions and sectors within fisheries and aquaculture will vary, each will have its own peak determined by the desired outcome.

**Figure 2: Hierarchy of FRDC Leadership Investments**



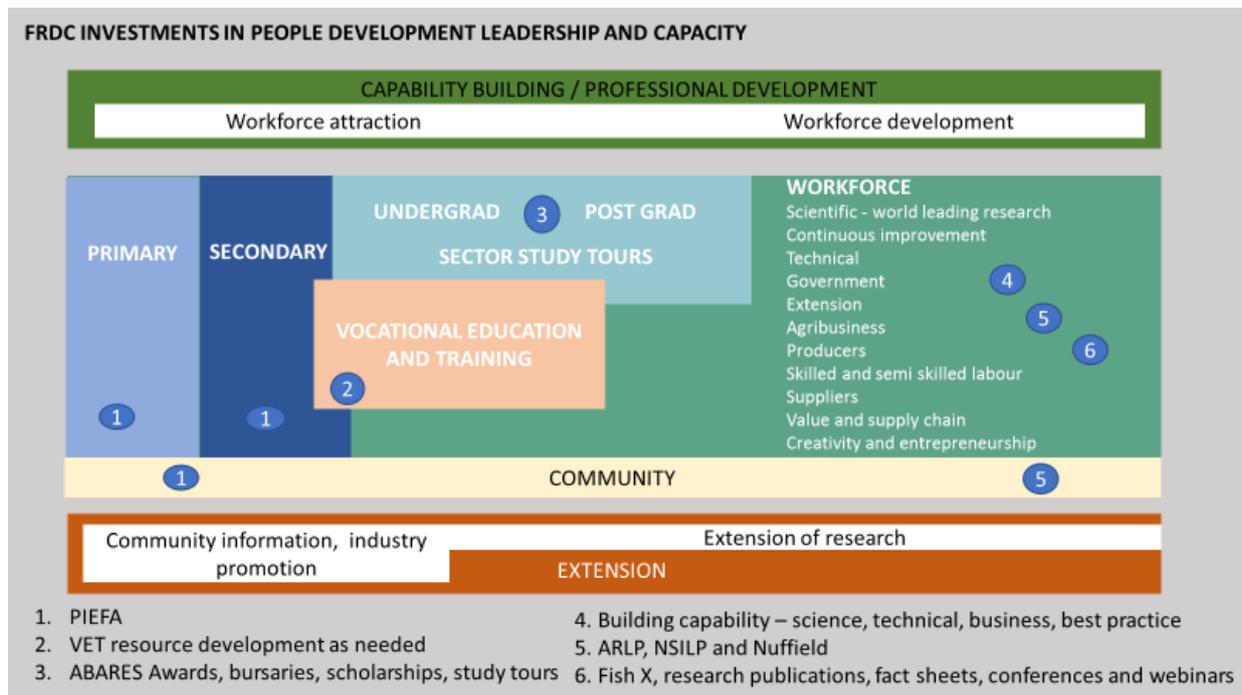
It is more challenging to make sense of FRDC investment in workforce development, given it is mostly achieved through projects which are initiated as and when the need arises. Figure 3 shows

<sup>1</sup> Zoe Routh Leadership Hierarchy CRDC Leadership Review

current activity against maturity levels in workforce development. While an FRDC presence can be found in each level, the type of investment and duration of commitment varies.

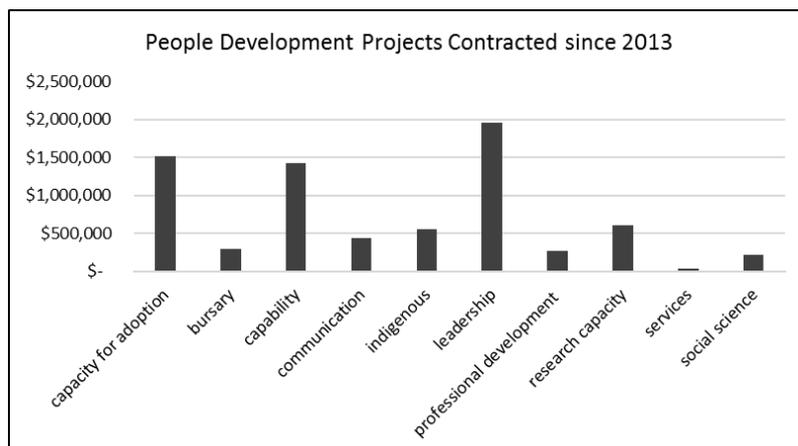
It appears that FRDC is most strongly present in mid to later stages of development and there is less being invested in youth, student, Indigenous s and early career researchers. These may be areas for additional effort moving forward.

**Figure 3: People Development Investments**



FRDC has a significant commitment to people development. Figure 4 shows investment from 2013 to 2018. Only projects which have greater than 50% of their investment attributed to people have been included. FRDC supports many more projects which have minor elements of people development, particularly to support adoption of research outcomes. While Leadership appears in Figure 4 to be a dominant investment, the overall combined investment in workforce development is greater once capacity for adoption, bursaries, capability, professional development and research capacity are combined.

**Figure 4: People Development Projects**



*Capacity for adoption* are technical projects with skills and training  
*Bursaries* are grants to attend conferences and sector events  
*Capability* is broad and includes technical, policy, social, entrepreneurship and business  
*Communication* is sponsorships, awards and promotions  
*Indigenous* are projects specifically for indigenous people  
*Leadership* are national, state and sector programs and projects  
*Professional Development* are professional networks and associations  
*Research capacity* are projects with a science and researcher focus  
*Services* is this review contract  
*Social science* are projects which address people development questions and include capacity building

While the body of work is significant. Unfortunately, its value beyond the life of projects is limited as the outcomes are not shared in a way that makes them accessible on an ongoing basis, unless you have knowledge of projects and know which Final Reports to look for. There could therefore be missed opportunities for further value to be gained.

### Examples of Current Activities, Programs and Projects

This section provides examples of the primary activities and projects which have been supported by FRDC, including some comments from the reviewer. Appendix 3 provides a table with more in-depth information on activities and Appendix 4 provides a list of projects supported by FRDC since 2013 which have >20% of their focus attributed to people development.

**National Seafood Industry Leadership Program** – There is strong support among fisheries and aquaculture sector members for NSILP. Many graduates can be found in middle to senior levels of fisheries and aquaculture management, leadership and agencies. NSILP builds confidence in leadership, provides exposure to a broad range of issues and capabilities at a high level and gives participants the opportunity to experience working with a cross-section of members from fisheries and aquaculture. NSILP supports two intakes per year of 18 people. Views on how effectively NSILP engages the full diversity of fisheries and aquaculture members is varied, with a perception that the program is mostly for commercial fisheries and aquaculture and questions about cultural diversity were also raised. This could be symptomatic of how NSILP is promoted and the mix of participants present in each cohort. Monitoring and reporting by NSILP using a diversity measure of participation over each intake could resolve this question. More impact could also be achieved through engaging the alumni beyond their course participation. With the development of the new FRDC Strategic Plan, the fit of NSILP should be evaluated against the needs of the new Plan, given it is a dominant presence in FRDC support for leadership capacity building.

**Australian Rural Leadership Program** – ARLP provides valuable exposure to complex and diverse leadership contexts. It represents a very significant investment for FRDC each year in two individuals. Greater clarity of outcomes and expectations would assist in selecting participants who have a strong potential to give a return back into the sector from the investment. Successful awardees should also be asked by FRDC to demonstrate and commit to how they will give back to fisheries and aquaculture. The alignment of ARLP with the new FRDC Strategic Plan will need to be considered.

**Nuffield** – Nuffield is an in-depth opportunity for an individual to develop technical knowledge in a global context and for personal and professional growth. Each scholarship is a modest investment for

FRDC which delivers lasting benefits to individuals and industry. FRDC supports one scholarship per year. Successful awardees should also be asked by FRDC to demonstrate and commit to how they will give back to the sector.

**Catch the Drift** – This program assisted in building confidence for people in leadership and communication at local community and business level. It may assist as a stepping stone toward NSILP. The outcomes of Catch the Drift in Victoria were considered positive, but there were issues with attendance. FRDC could offer Catch the Drift to other states/territories and sectors in a partnership approach, however stronger obligations around commitment to attend would be needed.

**ABARES Science and Innovation Awards for Young People** – This award encourages young scientists to develop careers in the sector. This is a modest investment which provides positive promotion, awareness raising and demonstrates FRDC commitment to science capacity. FRDC supports one award each year.

**Primary Industries Education Foundation Australia** – PIEFA develops up to date, balanced materials on primary industries for inclusion in school curricula. PIEFA is now focussed on increasing the number of schools using its materials. They have 1,100 schools registered of 9,500 schools. There were 35,000 downloads of fisheries material from Primezone last year. PIEFA has been significant investment for FRDC. There is an opportunity for FRDC to engage more regularly with PIEFA to enable sharing of up to date information about fisheries. Balanced sharing of industry information into schools is as important as ever given public campaigns to diminish community trust and confidence in fisheries industries. Seafood Industry Australia has also been a valuable collaborator with PIEFA.

**Vocational Education and Training Seafood Industry Training Package (SITP)** – Skills Impact maintains the SITP and has an Industry Reference Committee (IRC) for Aquaculture and Wild Catch who oversee the training package. FRDC may be asked to engage and assist if and when new industry priorities arise which may require the development of new material or curricula. FRDC also assists and partners with government and industry to deliver skills and training courses on an as needs basis.

**Fish-X** – Fish-X is an exploratory project in the area of stimulating culture change toward a more outward focus which builds an externally connected, entrepreneurial mindset. Fish-X builds and mentors individuals / teams to tackle industry problems in innovative ways. The future of Fish-X needs to be considered in the context of FRDC's broader investment strategy and its objectives from engaging with and enabling open innovation. <http://fish-x.com.au/>

**Fish 2.0** – FRDC is supporting the Australia track and is sponsoring the Australia-Pacific Forum in April 2019. Fish 2.0 builds connections in the seafood sector worldwide, building new business models and creating connections with investors. <https://www.fish20.org/>

**Young Chefs** – This is an awareness raising and educational activity.

**Travel Bursaries, Scholarships, Visiting Experts** – These investments deliver capacity building benefit to individuals through opportunities for experiential learning, exposure and building networks. Beneficiaries include industry members, researchers, PhDs and Post Grad students and other fisheries and aquaculture sector stakeholders. FRDC supports a number of these activities each year enabling attendance at events such as Seafood Directions. IPAs, RACs and IRG could play a stronger role in identifying areas of real need where FRDC support could overcome financial barriers for greater participation by more disadvantaged members of fisheries and aquaculture.

**SafeFish** – provides a platform for technical advice to deal with food safety and trade and market access issues affecting Australian seafood.

**Collaborative Partnership for Farming and Fishing Health and Safety** – FRDC has been collaborating in this Program since 2008. Agrifutures Australia manages the program on behalf of

partners from the Australian Government and other RDCs. The key target audiences are business owners, managers and employees, who with their families live on Australian farms and in fishing communities. Improvement in the physical and mental well-being of these groups resulting from investment in RD&E is the key outcome of the Program. The Program has also improved consultation and communication with health professionals and researchers working in the field of rural health and safety.

**FRDC 2017-069: Indigenous Capacity Building Program** – The project aims are: to develop a national, culturally appropriate capacity building program for involvement of Indigenous Australians in fisheries management; build the capacity of 20 Indigenous Australians to participate in a range of fisheries management, policy and research and development processes by increasing their knowledge, skills and experience; and develop understanding of the contributions of Indigenous Australians and the cultural aspects of their own engagement processes.

**FRDC 2016-141: White Spot Syndrome Virus (WSSV) preparedness for biosecurity awareness and adoption of best practice by the NSW and QLD wild catch commercial fishers** – The project was supported to develop appropriate extension material to reduce the risk of spread of WSSV from the control zone to non-control zones in QLD and NSW and to quantify best extension practice for biosecurity for the commercial wild catch fishers. Where possible existing extension material developed by Biosecurity Queensland for the commercial wild catch fishery would be utilised.

**FRDC 2016-306: Innovation in the seafood sector and the development of capacity** – Project objectives were to hold a pollinizer boot camp with FRDC staff and hold two pollinizer microhac innovation accelerator workshop.

**FRDC 2016-409: Women in Seafood Australasia: Providing pathways for the involvement of women in seafood industry development** – The Women’s Industry Network (WIN) was formed in 1996 by a group of women fishing in South Australia and that later evolved into the Women’s Industry Network Seafood Community, which is now known as Women in Seafood Australasia (WISA). WISA is a not for profit organisation to support the operation of the network. WISA builds the capacity of its seafood women to contribute to their industry. WINSO has been operational for over 20 years, this project looked at the existing model and offerings, to determine if they needed to be a revitalised and renewed WISA that better meets the needs of its members and to stimulate an interest for new members.

**FRDC 2016-411: Skills and Capabilities Reporting** – Project aim was to create a matrix of skill and capability building priorities across FRDC partners and advisory groups to help understand the people development priorities of its partners (RACs, IPAs and Subprograms). Findings included: Extension of leadership development opportunities to all levels of industry members; There is under-utilisation of existing resources. For example, there are two VET core units which could serve as starting points for an industry-wide induction program; and a need for industry members to gain a better understanding of ‘social license’ and how to best engage with local communities on this topic.

**FRDC 2016-418: Building education and training pathways for research and development adoption** – The project explored how FRDC could more effectively engage with education and training providers to create opportunities for enhanced dissemination of the outcomes of its investment in R&D through courses and degrees. Findings included: Fisheries qualifications are under pressure from rationalisation of courses due to low enrolments and savings measures; A decline in demand for specialist under graduate fisheries and aquaculture and an increase in demand for PhDs, Masters, Graduate Certificates and Diplomas, overseas students are important; Markets for Vocational Education and Training are thin. There are only a few Registered Training Providers (RTOs) in fisheries and seafood however, most have coverage of a number of states.

**FRDC 2015-405: Establishment of a Professional Association of Australian Fisheries Managers**

– The project has established a professional organisation as a sub-group of the Australian Society for Fish Biology (ASFB). The ASFB Fisheries Management Committee will provide a forum for regular and coordinated professional exchange between fishery managers in State, Territory and Commonwealth fisheries organisations, as well as acting as a repository for information and a coordinating group for future workshops and meetings on shared fisheries management challenges among jurisdictions.

**2014 OceanWatch Master Fisherman Program** – The Program aim was to recognise commercial fishers as highly skilled professionals who conduct themselves with integrity to ensure the best possible outcomes for their fishery as well as for their customers. It brought together fishers’ work practices, local and international codes of practice for responsible fishing, and the Australian Seafood Training Package. Between September and November 2014 OceanWatch formally trained 58 fishers in the NSW Estuary General Fishery, including an assessment in Certificate 2, ‘Participate in Environmentally Sustainable Work Practices’.

**FRDC 2013-410: RD&E capability audit and assessment for the Australian fishing and aquaculture industry 2013**

– An analysis of the research, development and extension (RD&E) effort supporting Australia’s fishing and aquaculture industries in 2013. Findings included overall FTE capability at the sector level was reported as: 33% Aquaculture - Commercial; 60% Fisheries - Commercial Wild-catch; 6% Fisheries - Recreational; and 1% Fisheries - Indigenous Customary. From 2009-2013 there was a relatively large increase in FTEs for both the Fisheries & Aquaculture and the Post-harvest Capability Areas and a large decrease in the number of FTEs in the Communication/Extension Professionals and Environment and Ecosystems Capability Area. Suggesting that a greater focus on the R&D part of RD&E in some organisations.

**FRDC 2013-414: Review of vocational education courses on aquatic animal health available to fisheries and aquaculture sectors in Australia for the FRDC Aquatic Animal Health Subprogram (AAHS)**

– The objectives of the project included preparation of a list of vocational institutes providing courses in aquatic animal health, along with an outline of past and present vocational training courses that address aquatic animal health.

**FRDC 2013-748: Seafood CRC Future Harvest Master Class in Fisheries Economics**

– This project developed a suite of Fishery Economics Masterclass learning and teaching resources that can be used flexibly to tailor course content and delivery mode to the needs of different groups of participants. The resources are hosted by FRDC and responsibility for promotion and delivery now lies with the FRDC’s Social Science and Economics Research Co-ordination Program 2015-2018.

# Statement of Intent and Evaluation Framework

This review is proposing that FRDC make a Statement of Intent which describes the framework under which it invests in People Development. The statement should be structured around the two proposed priority focus areas, and can be used as the framework for investment, reporting and evaluation. It can also feed into the new FRDC Corporate Strategy development. Figure 5 describes the Statement of Intent and includes evaluation against result areas. A proposed set of measures against each result area are also provided.

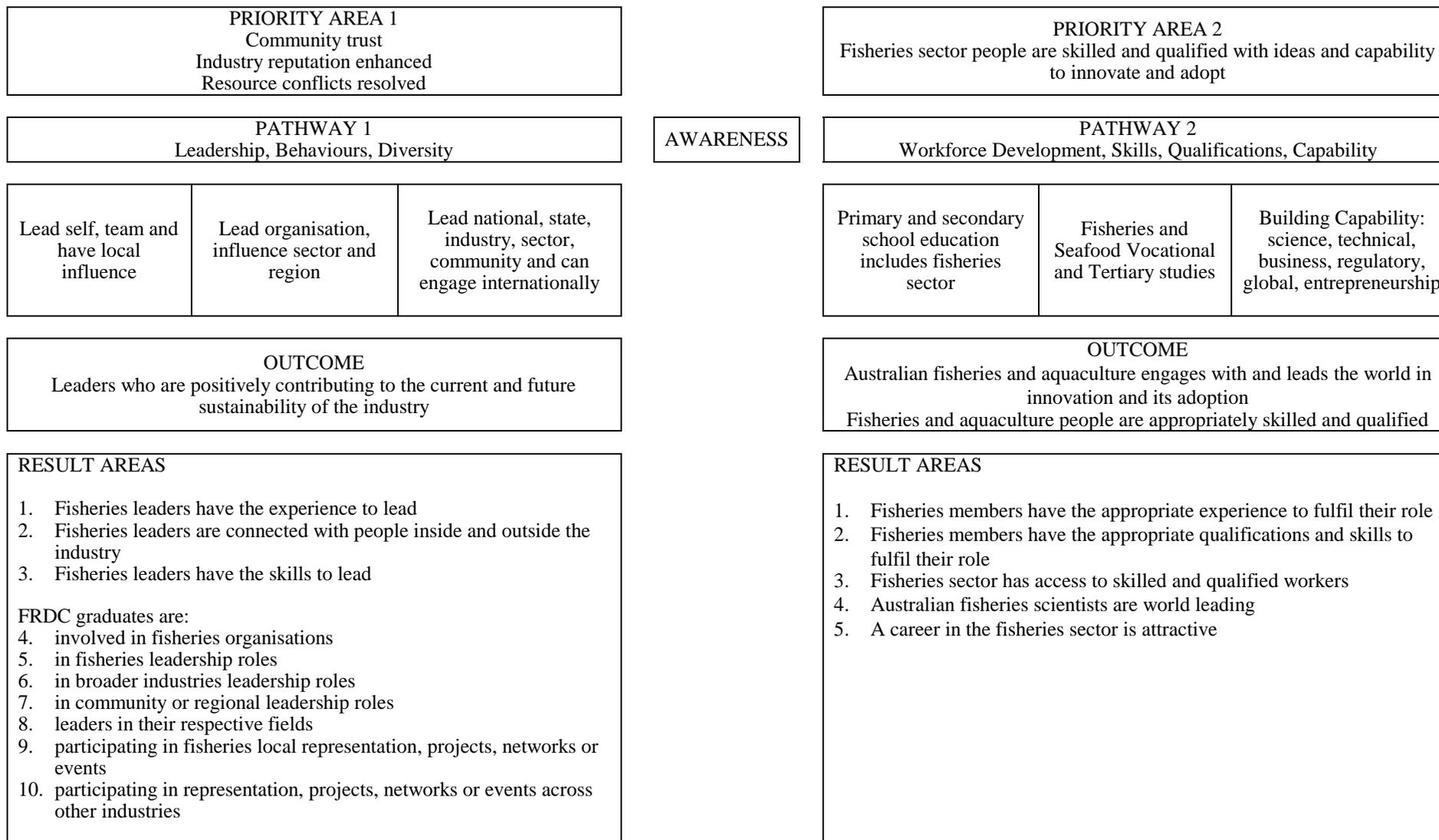
Evaluation of the impact of investment in people development is a challenging area. FRDC's Benefit Cost Analysis in 2015/16 (<http://www.frdc.com.au/Research/Benefits-of-research/2015-Portfolio-Assessment>) showed a positive return of 1:5.05 which is an excellent result and gives FRDC some confidence that there is value in supporting education, training and the professional development. What the BCA doesn't provide a full picture of is the degree to which FRDC makes a meaningful difference to advancing leadership and skills and qualification capacity within fisheries and aquaculture, or whether it is investing in the right places.

To better enable evaluation of impact, a framework is proposed here to assist FRDC in capturing the key sources of data and information it needs to better evaluate impact. Information gathering is proposed through two pathways: review and evaluation of the objectives, content and outcomes of programs and projects; and longitudinal surveys of graduates of FRDC funded people development and a survey of other fisheries and aquaculture stakeholders, including employers.

A stronger commitment to evaluation will increase transparency and confidence in people development investment. There are also some challenges which include:

- the quality of information across activities will vary
- each program or initiative, particularly those not managed by FRDC will have their own approaches to evaluation making it difficult to compare
- achieving useful response rates to online surveys
- enthusiasm bias where those who most benefitted from FRDC support are more likely to be the ones who respond compared to those who are less interested or did not feel they benefitted;
- securing internal support and buy-in to make the systems changes to enable data capture and commitment of resources for information gathering, interrogation and reporting.

**Figure 5: FRDC People Development Statement of Intent Framework**



## Result Areas for measurement Priority 1: Leadership impact<sup>2</sup>

1. Fisheries and aquaculture leaders have the experience to lead
  - i. Number of years graduate has spent in an organisation, industry, business or community leadership role
  - ii. Number of different types of leadership roles in organisations, industry and community the graduate has filled
  - iii. Confidence level of graduates in taking up leadership roles
2. Fisheries and aquaculture leaders are connected with people inside and outside the industry
  - i. Number of contacts each graduate can identify within fisheries
  - ii. Number of contacts each graduate can identify outside of fisheries
  - iii. Number of events attended by each graduate within and outside the fisheries sector
  - iv. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) of graduates<sup>3</sup>
3. Fisheries and aquaculture leaders have the skills to lead
  - i. Self-rating of skill level by FRDC graduates – measured over time
  - ii. Rating of the skill level of graduates by peers (such as fellow graduates, colleagues, supervisors) – *note most feasible in FRDC run programs such as NSILP*

FRDC graduates are:

4. involved in fisheries and aquaculture organisations
  - i. number of graduates involved in fisheries organisations
  - ii. % of graduates involved in fisheries organisations
  - iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) involved in fisheries organisations
5. in fisheries and aquaculture leadership roles
  - i. number of graduates involved in fisheries leadership roles
  - ii. % graduates involved in fisheries leadership roles
  - iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) involved in fisheries leadership
6. in other industries<sup>4</sup> leadership roles
  - i. number of graduates involved in broader leadership roles
  - ii. % graduates involved in broader leadership roles

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<sup>2</sup> Acknowledgement: Zoe Routh CRDC Leadership Program Review for Key Result Area headings for Leadership evaluation.

<sup>3</sup> Diversity measure is proposed by the author.

<sup>4</sup> Other industries means industries other than fisheries and aquaculture

- iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) involved in broader leadership roles
7. in community or regional leadership roles
    - i. number of graduates involved in leadership roles
    - ii. % graduates involved in leadership roles
    - iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) involved in community or regional leadership roles
  8. leaders in their respective fields
    - i. number of graduates involved in their respective field
    - ii. % graduates of graduates involved in their respective field
    - iii. number of awards for leadership within respective fields
    - iv. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) involved in their respective field
  9. participating in fisheries and aquaculture local representation, projects, networks or events
    - i. number of graduates involved in local representation, projects, networks or events
    - ii. % of graduates involved in local representation, projects, networks or events
    - iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) participating in fisheries local representation, projects, networks or events
  10. participating in representation, projects, networks or events across other industries/groups
    - i. number of graduates involved in local representation, projects, networks or events
    - ii. % graduates of graduates involved in local representation, projects, networks or events
    - iii. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) participating in fisheries local representation, projects, networks or events

### **Result areas for measuring Priority 2: Skills, qualifications and capability impact**

6. Fisheries and aquaculture members have the appropriate experience to fulfil their role
  - i. Self-rating of experience level of a survey group<sup>5</sup> of fisheries members
  - ii. Peer rating of experience level of a survey group of fisheries members
  - iii. Number of years a survey group of fisheries members have filled positions in fisheries organisations, committee etc
  - iv. Number of fisheries members supported by FRDC to attend a fisheries or broader industry or community event or conference

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<sup>5</sup> Some of the attributes that could be used to define a survey group of fisheries members could include: sector – commercial, aquaculture, recreation; indicative experience level (seniority within companies or organisations; profession (labourer, adviser, researcher, service provider); age, gender, culture.

- v. % of graduates who are indigenous, from other cultural backgrounds, are women, and from different fisheries sectors (commercial, aquaculture, recreational) participating in fisheries local representation, projects, networks or events ‘
7. Fisheries and aquaculture members have the appropriate qualifications and skills to fulfil their role
    - i. Self-rating of qualifications by a survey group of fisheries members
    - iii. Rating of the skill level of a survey group of fisheries members by their peers
    - iv. Number and level of qualifications held by each individual surveyed
    - v. Number of survey group of fisheries members who identify they have completed an FRDC supported capacity building activity
    - vi. Number of activities offered by FRDC to build capacity in technical, business, best practice or entrepreneurial skills
    - vii. Number of fisheries members who have completed an FRDC supported training or capacity building course
  8. Fisheries and aquaculture sectors have access to skilled and qualified workers
    - i. Number of enrolments and graduates of VET courses relevant to fisheries
    - ii. Number of under graduates enrolled and completing relevant fisheries degrees
    - iii. Number of courses and degrees that are relevant to commercial wild catch, aquaculture and recreational
    - iv. Employer ratings of current workforce skills against company / organisation needs
    - v. Employer ratings of access to suitability skilled (vocational) workers;
    - vi. Employer ratings of access to suitably qualified (tertiary) workers;
    - vii. Employers with >X number of workers have a workforce development plan
  9. Australian fisheries and aquaculture scientists are world leading
    - i. Number of publications resulting from FRDC research projects
    - ii. Number of Masters, PhDs and Post Docs supported through FRDC research projects
    - iii. Number of researchers supported through FRDC projects who give papers at Australian fisheries conferences and events
    - iv. Number of researchers supported through FRDC projects who give papers at broader industry conferences and events
    - v. Number of researchers supported through FRDC projects who present papers at international conferences and events
    - vi. Number of bursaries for researchers granted by FRDC;
    - vii. Number of industry internships completed with support from FRDC.
  10. A career in the fisheries and aquaculture sectors is attractive
    - i. Current information on fisheries is taught in primary and secondary schools and is accessible to teachers through appropriate pathways – government and industry websites, education conferences and events;
    - ii. Student career advisors have access to information about careers in fisheries;
    - iii. Students can directly access current information about fisheries through online and social media platforms;
    - iv. Schools in regions with demand for fisheries workers have access to locally relevant career information.

## Measurement Instruments

### 1. Desktop Research:

- Impact of programs can be measured in terms of intensity and frequency of engagement with participants. These attributes combine to achieve enduring impact<sup>6</sup>. Measuring cost per individual also gives a measure of return. Noting that all programs will have different levels, which is appropriate given that each program fills a different space in the leadership or capacity space.
- For each leadership program or capacity building investment made, the program aims, content and outcomes can be evaluated. The desired approach and objectives of each investment can be reviewed against any feedback or evaluation materials which exist to give a measure of how successfully each investment has been against the intended aims.

All projects/programs supported by FRDC should include as a contractual requirement an FRDC approved template for capturing participant/graduate ex ante and ex post individual evaluations. The findings from these evaluations should be reported annually to FRDC by ongoing programs or part of the Final Report for one-off projects.

- Each investment made can be mapped against the leadership development hierarchy and workforce development framework. This gives a measure of the extent to which FRDC is enabling leadership and capacity development within the different levels which are present within the sector.
- FRDC project management systems should include capturing of data as it relates to particularly science capacity measures – Masters, PhDs, Post Docs and publications.

### 2. Longitudinal Survey(s):

Result areas can be measured through longitudinal studies that use a combination of interviews and surveys (online) of every graduate about their ongoing leadership participation in and out of the fisheries industries and from every participant involved in FRDC capacity and workforce development. Evaluation should also be required at the point of an individual being offered a place in an FRDC supported activity, and at their point of graduation. Retrospective evaluation of past participants is also possible.

In workforce development a longitudinal study of an agreed survey group of fisheries members would provide a more complete view of the status of skills and qualifications beyond those areas which receive direct support from FRDC. This information will be valuable to FRDC in monitoring increases in demand for specific skills and qualifications, gaps and emerging needs – such as innovation and entrepreneurship.

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<sup>6</sup> Zoe Routh, CRDC Leadership Program Evaluation

# Actions to implement recommendations

## **Recommendation 1: Statement of Intent**

It is recommended that FRDC prepare a one-page Statement of Intent for People Development in which the objectives, outcomes and measures of success are outlined. It should include a commitment to a collaborative approach which engages with IPAs, IRG subprograms and RACs, and external partners. See Figure 1. The Statement of Intent should be used as a guiding framework for investment during the next 18 months as FRDC prepares its new Strategic Plan. Following completion of the FRDC Strategic Plan the Statement should be reviewed and adjusted as needed to ensure alignment with the new Plan, particularly in terms of the enabling function people development plays in FRDC achieving its Strategic goals. The evaluation framework can be found on page 12.

## **Recommendation 2: Priority Focus Areas**

2.1 FRDC People Development investment should be structured in terms of two Priority Focus Areas:

- i. Community trust, enhancing industry reputation and resource conflicts resolved which can be achieved through a Pathway of investment in Leadership, behaviours and diversity;
- ii. Fisheries and aquaculture sector people are skilled and qualified with ideas and capability to innovate and adopt.

These focus areas are co-dependent. However, to achieve them different but complementary pathways must be followed. By structuring FRDC in this way, greater clarity of purpose and the ability to evaluate impact against the investments made is possible.

2.2 Completing the mapping of the current portfolio against the two focus areas and then an assessment of access to the recommended data required for evaluation is the next step.

2.3 A decision about whether to proceed with a longitudinal survey now is also necessary. Given that the development of the new FRDC Strategic Plan is underway it would seem timely to complete such a survey before mid 2019.

## **Recommendation 3: Independent Evaluation of Impact**

This review has recommended an evaluation framework by which FRDC could capture measures of the impact of its investments in people development. It is recommended that FRDC commissions an independent provider to undertake the evaluation in 2019. Not only will an evaluation give evidence of impact from the last 5 to 10 years it will also provide valuable insights into priorities for people development to feed into the development of the FRDC Strategic Plan. The findings of the evaluation will also assist FRDC to assess how well the current suite of program investments in leadership and capacity meet the demographics of fisheries and aquaculture and future needs.

## **Recommendation 4: Leadership**

FRDC has a strong presence in leadership development through existing programs ARLP, Nuffield, NSILP and Catch the Drift. There is an opportunity to expand the profile of FRDC support offered for leadership to better engage the pyramid of leadership capability, Figure 2. The current programs mostly support mid to upper levels of leadership, leaving youth, indigenous, other cultures, women and minority sectors within fisheries and aquaculture potentially under represented. The current suite of leadership programs may not appeal or suit the needs of these groups. FRDC could either seek alternative opportunities to expand the appeal of current programs to achieve greater inclusiveness of diversity, or consider support for additional leadership opportunities targeted at those groups.

FRDC supported leadership programs should include capacity needs such as global perspectives, collaboration, entrepreneurship and innovation business development. There are also opportunities to more effectively engage FRDC alumni: for example active recruitment of alumni into FRDC representative roles on IPAs, IRG and RACs and the FRDC Board which will assist in succession planning; offering alumni's the opportunity for additional professional development; and incentivising them to be more active advocates within their own networks, including recruiting new people into FRDC people development activities.

FRDC has supported some excellent activities to develop capacity among other stakeholder groups – such as projects supported by the Indigenous Reference Group. However, pathways in fisheries into entry level leadership and for youth, women, indigenous and other cultures are unclear and not easy to access by people who are not 'in the know'. The importance of word of mouth should be recognised and incentives to encourage beneficiaries of leadership support to 'pay it forward' and engage others in their sectors should be used.

There is an opportunity to consciously expand the profile of support offered by FRDC for leadership development to better engage youth, indigenous, other cultures, women and different levels of leadership capability. This can be achieved through re-allocation of existing resources, shifting focus or adjusting the offer of existing activities, or additional resources offered on a competitive basis in collaboration with IPAs, IRG and RACs.

The power of enhancing diversity to improve leadership, engagement and community trust, is well researched and tested in business and not for profit sectors, with the evidence pointing toward greater diversity leading to better decision making, stronger ownership and trust in the outcomes. Diversity is also a key element to fostering more open communication, innovation, and stimulating the sector in a way which engages new players, novel ideas and transformational opportunities.

Some opportunities to expand and diversify FRDC support for leadership include:

- i. Develop a diversity profile for fisheries and aquaculture members to assist in recruitment strategic for leadership development opportunities;
- ii. Achieve more engaging the alumni. This includes FRDC making more effective use of alumni as potential members of IPAs and RACs as part of succession planning; offering pathways for alumni to further their professional development; increasing the expectation on alumni to apply what they have learnt within their sector and motivating alumni as recruitment agents.
- iii. Consider whether the two intakes of NSILP is working against more diverse leadership development opportunities being offered at different levels of the leadership pyramid.
- iv. Share the materials and learnings developed through NSILP so that they are more accessible to fisheries and aquaculture sector members more broadly. The proposed web platform could be used to achieve this.
- v. Partner with Young Farming Champions and or Horizons to create opportunities for fisheries students to build leadership skills with a cohort of other students who have diverse backgrounds in primary industries.
- vi. Share information with IPAs and RACs about the different levels of leadership and how these can best be supported. Also share information on courses or opportunities they can promote or assist in delivery of. Examples are:
  - o Catch the Drift; and
  - o Courses offered through Registered Training Organisations.
- vii. Consult with IRG about the merits of FRDC supporting one scholarship per year for an indigenous person to complete Milparanga through the Australian Rural Leadership Program.

## **Recommendation 5: Workforce Development**

FRDC has a significant presence in workforce development. It is difficult to appreciate because delivery is through many projects when there is need. Completion of a synthesis and map of existing and previous (but still relevant last 5 to 7 years) FRDC support for workforce development is recommended, followed by a gap analysis against future workforce skills and capability.

In addition, FRDC has completed stocktakes of capability for fisheries however the findings have not been sufficiently shared or recommendations implemented. It is therefore not easy to assess the extent, impact and reach of existing investments, or to assess where there may be gaps or future needs when considering what the over horizon capabilities needs of the sector may be.

A desktop exercise to synthesise and map existing workforce development against the Statement of Intent Framework should be completed followed by a gap analysis against future workforce skills and capability. Interviews with key delivery providers and project leaders should be completed to capture learnings, to evaluate impact and to identify whether there are further opportunities for use and extension of existing work. This framework and synthesis should be shared with IPAs, RACs and subprograms and used when assessing or developing proposals for workforce development.

In addition to the framework and synthesis, there are a few specific tasks which would enhance FRDC's presence in workforce development.

- i. Evaluate the feasibility of engaging with an existing provider to offer an advanced development opportunity to NSILP / ARLP Graduates in the areas of governance, finance, entrepreneurship and innovation. Any offer should require a financial contribution from the participant or their employer. FRDC may choose to waive this requirement for more disadvantaged members of fisheries and aquaculture.
- ii. Add a scanning and scouting function of people development opportunities, evaluate for their fit against sector needs and make them accessible via enhanced FRDC communication pathways. Those considered to be of particular value may warrant FRDC support.
- iii. Maintain and more strongly promote bursary opportunities for fisheries and aquaculture sector members to build their experience and industry knowledge both in Australia and overseas .
- iv. Consult regularly with Vocational Education and Training (VET) Aquaculture and Wildcatch Industry Committee, IPAs and RACs about industry needs in vocational skills and training. Maintain a high-level of awareness about the continuing change processes which are occurring to VET Industry Training Packages. Where appropriate FRDC may assist in development of course and resource materials.
- v. Continue to explore opportunities to build entrepreneurship and open innovation within the fisheries and aquaculture sectors. Build a stronger understanding of the sector capability needs to engage with transformational technologies, data, internet of things and disruptive products. Learn from Fish-X and investments in entrepreneurship by other RDCs and CRCs. Consider opportunities for collaboration where across sector diversity represents a value add.
- vi. Re-engage with PIEFA about sector priorities, this can take the form of quarterly phone calls.

## **Recommendation 6: Building Science Capability**

Building science capability is a core requirement of FRDC. Support for building science capacity is delivered by FRDC through funding research projects, the Young Scientists Award and travel bursaries. There is the opportunity for FRDC to do more to incentivise the building of research capacity toward fisheries and aquaculture priority areas.

Some options for incentivising research capacity are:

- i. Incentivising FRDC research providers to include research capacity building as part of research proposals to FRDC. FRDC templates should explicitly motivate this and FRDC should track and report on Masters, PhDs and Post Docs funded within projects.
- ii. Establish a forum (online) of university and education providers in fisheries and aquaculture which enables a dialogue between FRDC and providers to:
  - o Ensure education providers appreciate fisheries and aquaculture needs from production and environmental perspectives;
  - o Provide support to education providers for the retention of courses in fisheries and aquaculture;
  - o Make use of education pathways for the delivery of research outcomes;
  - o Understand from providers the most effective forms of incentives for encouraging students and early stage researchers to pursue careers in fisheries and aquaculture.
- iii. Promote a PhD Program which is delivered in the form of top ups for PhDs and Post Docs in areas of particular importance to fisheries and aquaculture.
- iv. Offer an internship program, this could be linked to Masters, PhDs, Post Docs, and early career researchers. There are a number of successful models to consider. Examples are:
  - o ACIAR offers 3 month internship where the student is hosted by an ACIAR project working in a developing country, the student answers an emerging research question and prepares a report for ACIAR and the project, the grant is \$19,000 for 3 months to cover all costs.
  - o Wine Australia Incubator Initiative is targeted at early career researchers. Researchers apply to answer a 'local' researchable question nominated by a wine region. The researcher must work with the regions wine growers. Up to \$20,000 (ex gst) can be applied for, which must be matched by their research organisation.
- v. Continue to offer travel bursaries to sector events and conferences for researchers and students to build experience and industry knowledge both in Australia and overseas. Hold dedicated activities at major events for students and early career researchers to build networks.

## **Recommendation 7: Communication and Engagement**

While FRDC does not need to invest in all people development activities, it is looked to by fisheries and aquaculture members and organisations as a key source of information about opportunities for the development of people. FRDC could operate as an information hub on people development.

This could be delivered in the forms of:

- i. An up to date schedule about opportunities and how to participate, which all sector members can access and contribute to, this greater level of transparency about opportunities and how to participate could generate new interest and greater momentum toward participation.
- ii. Develop for the web a set of consolidated learning materials from FRDC projects which are accessible for all fisheries and aquaculture users. Examples include materials from NSILP, MAC and Veterinary Training materials

- iii. FRDC could establish an informal, virtual People Development Forum which individuals and organisations can submit an EOI to FRDC to join. The Forum could be used as a brains trust to test and develop new people development opportunities and could also host a virtual knowledge sharing and priorities discussion session every six months which would be open to the wider stakeholder group, IPA, RAC and IRG Secretariats/Chairs should be expected to participate.
- iv. A report on People Development should be a standing item at FRDC Annual Planning Workshops. The aim would be to promote the importance of people development to stakeholders and to raise awareness about how to get involved.
- v. Enabling knowledge sharing between FRDC programs to increase impact. FRDC already tracks within projects where providers identify people development elements, however the extent to which the people development outcomes are achieved, particularly where extension is concerned is unclear. Examples are:
  - o outcomes from social and institution research often involve capacity building for adoption to be a success – for example increasing effectiveness of industry organisation community engagement;
  - o adoption of new technologies, technical capacities and management practices include a skills and training component.
- vi. A number of quality reports have been completed for FRDC in people development, capacity building and extension over a number of years. Some recent reports include recommendations which are relevant to outcomes sought under the two Strategic Intents recommended in this review. However, there has been low application of the findings of these reports so far by FRDC.

FRDC could develop an implementation proposal which reviews these recommendations for those which have the potential to lead to beneficial people development and extension outcomes for FRDC Stakeholders if adopted. Prepare an implementation plan for those which could be adopted during 2019, while others which could be considered as part of the new FRDC Strategic Plan development.

### **Recommendation 8: Enable IPAs, RACs and subprograms in People Development**

A specific engagement with IPAs and RACs on people development is needed to make clear FRDC's expectations on the level of funding and resource commitment which should be directed toward People Development. Implementation of the above recommendations will be largely address this recommendation. Engagement should include

- i. All IPAs and RACs should be required to report to FRDC on People Development. Include an annual review and feedback process between IPAs, RACs and FRDC.
- ii. Work with IPAs and RACs to address capacity building needs among RAC, IPA members and Executive Officers to build their confidence in people development planning and implementation. A combined meeting of RACs and IPAs (or Secretariats) could be used as a starting point.
- iii. FRDC could collaborate with IPAs on enabling people development within industry sectors and RACs and offer additional funding incentives for activities to be delivered in sectors and regions. For example, Catch the Drift could be offered with additional FRDC support and capped at 4 regions/sectors each year. Each IPA/RAC would be charged with promotion and delivery, including target numbers for attendance. Other incentives could be offered to encourage proactive identification of opportunities by IPAs and RACs.

- iv. Assistance in building understanding within IPAs and RACs about some of the key sector challenges such as diversity.

### **Recommendation 9: Ongoing Evaluation**

A clear deficiency within people development is the lack of clear articulation of success or metrics for measurement of success. While this is not an area where quantified measures are particularly meaningful, a stronger commitment to capturing outcomes from investment in people development on an ongoing basis would strengthen confidence in the benefits of investment in the area.

Upon completion of the Impact Evaluation in Recommendation 3, FRDC could establish a simple evaluation framework for all people development investments in order to track progress on a yearly basis to increase transparency of outcomes being achieved. Measures include:

- i. Articulating success against the two focus areas of Strategic Intent;
- ii. Capturing evaluation of participants ex-ante (their expectations from participation) and ex-post (what actually was achieved) in FRDC funded people development activities. Capture this, collate and share the findings.
- iii. Capture capacity building outcomes in research proposals and in their evaluation, track within FRDC project management system.
- iv. Consider creating a fisheries and aquaculture meme which describes what a successful fisheries and aquaculture leader looks like – diversity, gender, age, culture, leadership attributes, professional skills and capabilities. This can be used to not only assist FRDC focus, but also to communicate within the sector more broadly how diverse leaders are.

### **Recommendation 10: Resourcing**

Given much of what is required in People Development is around Coordination, Engagement and Communication, a full-time commitment within FRDC is not needed. However, an individual recruited part-time or on contract could assist to re-engage with FRDC investments and to provide a dedicated focus to the area. They should have knowledge of how to access and work with the industry, experience in management of leadership, education and training along with communication skills and the ability to foster a network and collaborative culture around people development to re-energise the space.

# Extension and Adoption

Much of what is required of FRDC in People Development is about Coordination, Engagement, Communication and scouting and scanning for new needs and opportunities in people development as they emerge. This review recommends that FRDC recruit or contract a Coordinator to lead FRDC's People Development on a part-time basis. The Coordinator should be charged with:

- i. Prepare an Operating Plan for the interim period to new Strategic Plan;
- ii. Contribute to Strategic Plan development from the perspective of people development;
- iii. High level management of ongoing Programs and National projects;
- iv. Enabling IPAs, IRG Subprograms and RACs through communication, capacity building and review and feedback on people development proposals to assist them to take the lead in sector and regional level people development, implementation with IPAs and RACs;
- v. Ensuring compliance in evaluation and reporting by FRDC PD projects and Programs.
- vi. Re-engage with existing PD investments to ensure providers understand fishery sector needs and priorities. Including ARLP, NSILP and PIEFA.
- vii. Provide and maintain the platform for sharing and promoting an annual schedule of people development activities with FRDC stakeholders. Manage as an open forum for others to contribute to.
- viii. Collaborating with related FRDC programs and projects. This includes reviewing for implementation of the outputs of projects with relevant findings;
- ix. Scanning and evaluating what is needed in people development against global trends and changes, entrepreneurship, open innovation, transformational technology, disruptive products, data and the internet of things. This could include collaboration with RDCs and others.

# Appendices

- Appendix 1: Consultation list
- Appendix 2: What Stakeholders Said
- Appendix 3: Activities Table
- Appendix 4: Project List 2013-2018

## Appendix 1: Consultation List

Martin Exel	Austral Fisheries
Chris Calogeras	C-Aid
Jo Ruscoe	Australian Barramundi Association
Zoe Routh	Inner Compass
Matt Taylor	Western RockLobster
Ian Cartwright	Thalassa Consulting
Leonie Noble	winsc
Dallas D'Silva	DEDJTR
Michael Sparks	Intuitive Solutions
Mark Crane	CSIRO
Frank Prokop	
Jill Briggs	Affectus
Rachel King	Australian Council of Prawn Fisheries
Kim Hooper	Australian Prawn Farmers Association
Ben Cameron	Cameron of Tasmania
Veronica Papacosta	Sydney Fresh Seafood
Stan Lui	TSRA Land and Sea Management Unit
Johnathon Davey	Seafood Industry Victoria
Heidi Hansen	Tassal
Matt Linnegar	Australian Rural Leadership Program
Ben Stockwin	PIEFA
Lynne Strong	Young Farming Champions

## Appendix 2: What Stakeholders said

### Stakeholder Views on Program Goals

- Social licence core driver for people development – PD should be the carrier of social licence. Foster the ability to communicate with positive influence.
- Industry leaders who can make a coherent story in the face of opposition.
- An open and engaging outcomes focus.
- The BIG gap is in industry development (broader lifting of capacity) – what role does SIA have in this??
- What is good strategy in people development? How does FRDC get the best out of people?
- People in key parts of DM have the skills to play key roles.
- Leaders for genuine co-management of public resources.
- Leaders who can build partnerships for collective action.
- Why doesn't people development drive innovation?
- Greater diversity is known to lead to better decisions, there is low diversity in much of industry representation.
- Increasing accessibility of programs
- How to build expertise from low to high
- Increasing the number of people from the grass roots up who are accessing skills and building capability
- Engage with to increase diversity of representation and leadership – women, multi-cultural sectors, indigenous, youth
- Breaking down barriers at the coal face

### General Comments

- FRDC programs are valuable, it is one of the few agencies which provides funding for people. There is a real struggle to increase diversity within the sector, PD programs are therefore needed. It is important to bring young people through who are aware and informed – learn to be informed.
- People Development is the carrier of social licence.
- Leadership is not a hierarchy, each individual finds their own path. Think in terms of a lattice of opportunities, people choose the path through which suits them.
- The community engagement challenge by industry on social licence is huge and requires sustained investment and support.
- People development is even more critical for fisheries where it is a publicly shared resource. Building capacity in co-management is very important. Leaders are needed to build collective capacity against a shared vision.
- FRDC has made sustained commitments like NSILP but has also dipped in and out of skills development – such as media training, whether those investments had any impact is impossible to evaluate.
- States with good structures – VIC and WA have the advantage of being able to engage with FRDC and achieve positive PD co-funding arrangements. Other states where sector organisations are weaker its hard to see how co-funding could work.
- FRDC has a role in bringing young people forward in the industry who are aware and informed. There is a struggle to achieve diversity among those who get involved.
- Going beyond finger pointing to developing people who can connect, identify and work collaboratively toward solutions.
- Recreational fishers see themselves as the poor relation in the industry, yet they are at the forefront of community engagement and shared resource challenges.
- FRDC PD programs must build trust and break down barriers.
- Soft leadership programs with hard leadership metrics.

- Using alternative pathway – particularly rec fisheries – seafood outlets....consumers and retailers to tell the seafood story – creating consumer pull.
- Negative perceptions of seafood industry in universities – connecting with tertiary students
- Recreational fishers are diverse and multicultural, programs do not adequately engage with this.
- Recreational fishing sector disenfranchised.
- Balance across recreation / commercial / aquaculture.
- Capacity building needed across the industry in biosecurity. DAWR leading but not trusted.
- Female demographic is under represented in the industry and the argument is being lost with the female demographic in the community.
- Develop a franchisable entry level leadership / capacity program that everyone can buy in to. IPAs/RACs could be required to make a minimum non-discretionary commitment to make this happen.
- Impact correlates to intensity and frequency of engagement.
- Offer PHD top ups against industry priorities it's a really cheap way to motivate universities to offer PhDs in areas of interest to FRDC

### **Enabling IPAs, RACs and subprograms to deliver People Development at Sector level**

- The transition of PD to IPAs and RACs has diluted the focus and effort. PD is often left off give tight budgets. Sector bodies have found it difficult to internalise the cost of PD. The idea was that FRDC would make the allocation under the IPA to avoid toing and froing, however the \$s are pulled elsewhere. (are they contravening their IPAs?) Guidance from FRDC missing on what PD looks like and how much should be invested. Guidelines around what entry level versus advanced PD looks like would be very helpful. Sector bodies (and RACs) have low awareness of the PD opportunities available to them.
- FRDC divested PD to IPAs and RACs who were expected to internalise the cost. But most don't have PD capability. Guidance was missing on what a PD plan should look like and how much \$s should be committed to it. Entry versus advanced components. Seen as FRDC divesting responsibility to sectors.
- Need to formalise expectations between FRDC and IPAs/RACs and then follow up with accountability through reporting.
- Communication to IPAs and RACs should be improved about PD opportunities and how to get involved. Aware of ARLP and NSILP. Put opportunities to IPA/RAC in a more direct way – encourage inclusion in PD plans. Assisting in engagement in cross-sector issues.
- Building workforce capability key issue for sectors, but sector bodies have low experience/knowledge and therefore have difficulty defining priorities for investment.
- Goal building workforce capability, welfare and productivity.
- This is symptomatic of two things:
- Limited skills, experience and capacity in people development of Executive Offices and others in sector leadership roles leading to a lack of confidence and prioritisation of driving PD for their sector;
- Tight funding and “other industry priorities” outcompeting PD.
- Building Workforce Capability real challenge for IPAs/RACs.
- Devolving to sectors is appropriate but do they have the competency to lead on that responsibility?
- Does FRDC have the internal skills to assist?
- Induction of FRDC staff, RAC and IPA members so that they can add value.
- The starting point is low capacity in IPAs/RACs in people development and limited budgets. PD is consistently raised as a high priority, but there is a low willingness to pay.
- Broader programs which expose people to diversity are valuable.
- WA Recreational Fishing Program seems to be a success story in attracting and engaging people.

- Industry is not cognisant of the value in people development. There is still a certain amount of cottage industry going on.
- Enabling/mentoring of Executive Officers to give them confidence with their Boards.
- An annual forum of EOs – a bit like Executive group coaching? A way of keeping people in roles, growing in the industry, improving performance of Boards/Committees.
- What do industry associations need?
- Attract and retain members
- Nurture participation
- Foster innovation
- Develop leaders
- Embed succession
- Identify the characteristics of a healthy industry association – use that to frame your skills and development needs.
- Developing cultures which embrace change not resist it.

## **NSILP**

- FRDC's continuity of commitment to leadership through NSILP make a real difference, more powerful than other investors who dip in and out.
- Disparity in representation.
- NSILP is focused on commercial sector and aquaculture, gives every impression it is anti-recreational fishing. Aquaculture makes low co-investment. Good rec fishers nominating but not being successful.
- Is curriculum broad enough? Opportunities beyond NSILP are unclear. Graduates of NSILP are seeking to build professional capability...what are the pathways for them to do that? Examples – governance, finance, policy, innovation, entrepreneurship
- ARLP is a deep dive leadership experience with a diverse cohort.
- NSILP develops the discipline to think from different perspectives and positions.
- The focus of engagement is still too much on the inner sanctum – those in leadership roles and Committees. How can FRDC reach out to others?
- Understanding the path people take post NSILP gives valuable insights into why some people continue the leadership path and others exit.
- There is an argument for an ongoing engagement with graduates, NSILP helps them get to the level of middle managers, Executive Officers but they need access to ongoing support mentoring? to thrive.
- Enable NSILP alumni network, annual gathering?

## **Boundaries, accessibility and level**

- Industry stakeholders consulted had real difficulty in identifying the delineation of FRDC responsibility, versus the responsibility of sectors/industry bodies. There is a high level of dependence on “the mother ship”.
- The current program mix is poorly understood and is considered by stakeholders to be a grab bag of activities. Internal leadership and focus within FRDC has been lacking.
- Pros and Cons of single large investments in one individual aka ARLP versus small investments in a larger number of people aka Catch the Drift.
- Key challenge is how to increase the number and diversity of individuals seek to engage in building their skills and capacity.
- Boundaries – what are the boundaries of FRDC investment versus others – this is not clear among industry stakeholders.
- Programs are a mixed bag, boundaries are not clear? Has FRDC engaged with retail?
- The struggle around diversity is real – women, culture, age....moving away from male dominated, older generation thinking and approaches

- Bringing the diversity of interests within and across sectors to the table.
- “there are still a lot of old razor backs on Committees...they don’t listen well and its time to bring in new people to move away from table thumping...”
- A better representation across the industry is needed
- Continued need to increase leadership and diversity in sector organisations. Many sector boards have low diversity, including poor representation of women. Rec Fishing example, sector is diverse, but those who participate in representation are not. Some States have particularly poor track records of bringing in new people.
- Leadership along the supply change and with other agencies.

### **Capacity needs**

- Increase skills in: Critical thinking, Engagement and communication.
- Young people who are informed.
- Negotiation for resource sharing.
- 2 tiers – attract good people and training to lift people
- Running short themed workshops on the five of six critical issues for businesses.
- Work with people who can take research into useable outputs.
- Work with IPAs/RACs to take the smaller, incremental steps – governance, negotiation, communication...
- An open mindset toward opportunities versus a threat mindset.
- Business capacity is important, falls outside FRDC remit, but needs to be front of mind as a significant need in the industry to build professionalism of businesses within industry.
- Engage uni’s/VET on matching capacity with future needs – achieving social and economic objectives.
- Data there is data being generated out there but no one knows how to interpret it or what to do with it. There is a lack of confidence in interpreting data.
- Fishers and commercial fishers with the capacity to evaluate and assess data in a way that is meaningful. Need technical competency and capability to evaluate and interpret data.
- Aquaculture is short of people with business expertise.
- Where does tertiary education sit in fisheries is it more conservation versus production?
- Indigenous Reference Group include capacity building. What does IRG do in capacity building?

### Appendix 3: People Development Activities Summary

Activity	Description	Duration	FRDC Role and Involvement	Cost
<b>LEADERSHIP</b>				
<b>Australian Rural Leadership Program</b>	ARLP is experiential learning through challenging situations in a range of contexts. The intent is to develop intuitive leaders who work effectively in complexity and can influence and make an impact in rural, regional and remote Australia. It offers fishers the opportunity to work with a diverse cohort of 30 participants and become part of a network of fellows.	15 months	FRDC promotes opportunity to industry members and funds one scholarship per year.	Participant \$5,000 FRDC \$50,000
Reviewers Comments	The ARLP focus is behavioural change as the means to develop leadership. The return on investment from ARLP is difficult to evaluate. The program could provide a clearer articulation of outcomes and expectations for both investors and for participants. This could strengthen applications and will also enable clearer understanding of the ARLP value proposition versus the NSILP which is unclear. Both programs focus on the attributes of the individual, however ARLP is deeper and with a diverse cohort, this is the primary difference between the programs. Neither program advances qualifications which was raised by participants as something they were seeking in Leadership training.			
<b>National Seafood Industry Leadership Program</b>	NSILP is the national industry-specific leadership program designed for the seafood industry. It is aimed at people wishing to take up leadership roles within the industry. The program aims to develop participant understanding of how to impact constructively, toward positive outcomes for the seafood industry.	6 months	FRDC funds and oversees management. Delivery is through an external contract. Two intakes of NSILP are offered each year.	Participant \$500 plus travel and accom costs
Reviewers Comments	The industry recognises that investment in leadership is important, with a high value placed on NSILP. Participant feedback indicated NSILP covers a lot of ground at a high level. The limited contact days were thought to be a factor. NSILP builds confidence in leadership but does not address qualification gaps – such as governance (finance), innovation and entrepreneurship which were thought to be important needs. Lack of diversity of participants was also raised as a potential concern given how diverse people are in fisheries and aquaculture, participants of NSILP are predominantly from middle levels of the sector. Recreational fishers were thought to be under represented even with strong applicants applying. The alumni network was considered a strength. Expansion of NSILP to two intakes per year has reduced motivation in industry bodies to offer people development opportunities as NSILP is			

thought to occupy that space.				
<b>Nuffield</b>	Nuffield Australia Farming Scholarships is a program for primary producers who are awarded a scholarship to travel overseas and study an agricultural topic of choice. Nuffield has been operating for over 60 years. Scholars are selected annually on merit. There are approximately 400 Nuffield Scholars in Australia. Nuffield Australia is also part of a global network of 1,500 Nuffield Scholars from other countries.	12 months	FRDC promotes opportunity to industry members and funds one scholarship per year	FRDC \$52,000 per participant
Reviewers Comments	Nuffield provides an in-depth opportunity for an individual to develop technical knowledge in a global context and to develop personally and professionally. Individuals have the opportunity to access knowledge and experience from at home and overseas for their sector. There are a number of good examples of Nuffield scholars bringing back capacity to the sector. However, these benefits are not consistently tracked and reported and so it is difficult to be confident about how well fisheries and aquaculture Nuffield scholars have brought benefit back into their sectors is unclear. FRDC expectations of candidates and how they can demonstrate return on investment to the sector should be made clear prior to scholarships being awarded.			
<b>Catch the Drift</b>	Catch the Drift is a three-day workshop which aims to develop participants knowledge, skills, practical learning and solutions to problems. Individuals gain insights about themselves, how they communicate, how they can work better in teams, get the most out of meetings and deal with conflict. It offers an environment where industry issues and ideas about solutions can be discussed.	3 days, 3 programs	Seafood Victoria delivered the course with funding from FRDC.	Total project cost was \$113,635 and this ran 3 programs for a total of 45 participants
Reviewers Comments	Feedback from Seafood Victoria about the success of Catch the Drift was strongly positive. The primary benefit being identification of an additional small cohort of people who could assist in providing a voice for the fishing within their local communities. There was however a major downside. Catch the Drift was delivered regionally, while this was thought to maximise likelihood of participation, the result was low commitment by local fishers to attend, with many pulling out of attending at the last minute. If FRDC were to consider continuing with this offering through IPAs and RACs, a stronger level of compulsion to attend would be needed. A modest co-contribution by participants, or a field day type experience as an incentive may be needed. Seafood Victoria suggested holding the course in a capital city, thereby requiring attendees to commit through the travel and accommodation requirement.			

<b>AWARENESS</b>				
<b>Young Chefs</b>	This project part funds the Appetite for Excellence awards. This annual competition is for young chefs, waiters/sommeliers and restaurateurs. As a component of the competition the finalists tour a region of Australia visiting primary producers, getting a greater understanding of producers and their products. FRDC's funding has provided a list of a number of chefs that we continue to use for various tasks and utilise as a resource.	1 week tour each year. The finalists typically spend 1 – 1.5 days visiting seafood producers.	Sponsorship provided to Appetite for Excellence. FRDC plan the seafood component of the tour and attend.	\$22,000 per year
Reviewers Comments				
<b>Primary Industries Education Foundation</b>	PIEFA works to engage and inform students, teachers and the broader community about the role and importance of primary industries in the Australian economy, environment and wider community, and the career opportunities available through the primary industries and along the chain of supply of food and fibre products.	ongoing	FRDC has been a long term supporter of PIEFA and has assisted in the funding and development of a number of education resources for use in schools.	\$60,000 per annum
Reviewers comments	PIEFA has developed a large number of fisheries related materials which have been incorporated into schools curricula. The role of PIEFA is to develop materials for inclusion in schools education which present a balanced view of primary industries. Consultation with PIEFA indicates that PIEFA's focus is now on increasing the number of schools aware of and using PIEFA teaching materials. Out of Australia's 9,500 schools, PIEFA has a presence in 1,100 through registrations on Primezone. In 2016/17 Primezone had 9,000 users, that figure increased to 30,000 in 2017/18. Last year there were 300,000 downloads from the Primezone website, of which 35,000 were fisheries related. There seems little doubt that continued injection of up to date, balanced information about primary industries into school teaching material is beneficial and is as important as ever given the power of social media and other platforms to drive campaigns that diminish trust in primary industries including fisheries. PIEFA has also taken on Career Harvest through which there is an opportunity to strengthen promotion of fisheries careers via this platform.			
<b>PROFESSIONAL DEVELOPMENT</b>				

<b>Fish – X</b>	Fish-X is a three year project to explore whether FRDC can play a role in stimulating cultural change within the industry away from inwardly-conservative approaches to an externally-connected, entrepreneurial mindset. The approach focusses on people capability development, coaches/mentors teams to tackle industry problems and supports the growth of a network of trained innovator and investors who have a shared understanding of entrepreneurial mindsets, skills and practices.	3 years	FRDC is supporting Fish-X as a research project.	
Reviewers comments	Continued involvement in Fish-X like activities needs to be considered in terms of FRDC’s strategy around engaging in cultural change and open innovation which includes building the sort of capabilities targeted by Fish-X such as entrepreneurship. Big gains to FRDC are claimed in terms of building capacity to engage with open innovation systems, make better use of investments and capacity in research and development and the building of new partnerships across the innovation sector. All RDCs are grappling with how to effectively engage with the new age of innovation entrepreneurship. An investment such as Fish-X is a learning opportunity for FRDC about how to work in new spaces and the benefits of investing in the entrepreneurial capacity of people. Fish-X also responds to a need identified by NSLIP graduates around a professional development around entrepreneurship and innovation.			
<b>Seafood Training Package</b>	The Seafood Industry Training Package (SITP) is an integrated set of nationally endorsed competency standards maintained under the Vocational Education and Training (VET).		FRDC historically had been involved in the Industry Skills Council processes around maintenance and review of units of competency under the SITP. This has reduced in the last few years.	
Reviewers comments	Following the departure of the Program Manager and the devolution of PD to sector’s FRDC has not been directly involved in the maintenance of the SITP. Skills Impact maintains the SITP and has an Industry Reference Committee (IRC) for Aquaculture and Wild Catch who oversee the training package. Consultation with the Chair of the Industry Reference Committee indicated that there is no imperative at this time for FRDC to become more strongly engaged in the VET SITP review and maintenance processes. Where FRDC may engage as needed is around the development of new courses and material where market failure justifies that involvement. Maintaining ongoing contact with the IRC (6 monthly) is sufficient to keep FRDC informed.			
<b>ABARES Science and Innovation Awards for Young People in Agriculture</b>	The Science and Innovation Awards is a competitive, annual grants program supporting young people aged between 18 and 35 years (the applicant) to undertake a project on an innovative or emerging scientific issue, including biophysical and social sciences, that will contribute to the ongoing success and sustainability of Australia's agricultural, fisheries and forestry industries.	12 months	FRDC supports the fisheries and aquaculture award.	\$22,000 gst inc

Reviewers comments	This award encourages young scientists to develop careers in the sector, benefits include financial support, skills development opportunities, opportunity to build strong networks across their industry, national and international exposure for their work including conference participation, publishing opportunities.			
<b>FISH 2.0</b>	Fish 2.0 builds connections in the seafood sector globally. Competitors engage in an interactive process to improve business models and learn how to successfully approach investors. In turn, investors gain early access to new deals, co-investors, and insights into sustainable seafood trends and opportunities. Launched in 2013 it has built a global network of connections and partnerships among new ventures, experts, industry leaders, and investors.		FRDC supports the Australia track and is sponsoring the Australia-Pacific Forum, Brisbane, April 2-3, 2019.	
Reviewers comments	Continued engagement with Fish 2.0 builds FRDC knowledge of and global connections into tech-innovation space. A bursary to attend Fish 2.0 could be a good opportunity for a fisheries and aquaculture member looking to advance a sector or start-up idea.			
<b>Peter Dundas Smith Scholarship Travel Bursaries</b>	FRDC supports traveling bursaries for Australian researchers to travel overseas to participate in international conferences, workshops and other industry-related activities. FRDC also supports international experts travelling to Australia to share their expertise.			
Reviewers comments	Stakeholder feedback supports continued offering of bursaries. FRDC should require a brief report from each bursary, collate and evaluate.			

<b>RELATED PROGRAMS</b>				
<b>IPA, RAC and subprogram People Development Plans</b>	IPAs, RACs and subprograms are expected to address people development for their sectors.		FRDC has funding agreements with each IPA and RAC. While not explicit FRDC has expressed its expectation that IPAs and RACs including investment to address people development.	
Reviewers Comments	<p>Consultation with executive officers of some IPAs and RACs indicate that while some progress has been made in people development there appears to be some real gaps and the level of engagement is highly variable. Successful examples of PD are tied to key individuals with capacity and knowledge of PD who have been advocates and drivers of activities in their sectors. Some IPAs/RACs have prepared a plan or have embedded PD in strategic plans. There is an apparent a capacity gap (knowledge and experience) within IPAs/RACs in particular in how to implement PD activities, leading to lack of confidence for implementation and inaction.</p> <p>There is also a mismatch between stakeholders saying PD is important and securing commitments to fund.</p> <p>Feedback from some IPAs/RACs and the Program Manager suggests that more needs to be done by FRDC to assist IPAs/RACs to take up this responsibility. Sector PD may require some enabling support from FRDC, such as assistance/feedback from PD expertise on plans and implementation.</p>			
<b>FRDC Human Dimensions Sub-Program</b>	The Human Dimensions Research Subprogram delivers research into the human dimensions of fisheries and aquaculture. It facilitates social science and economics RD&E to inform industry and management responses to human dimensions challenges facing fisheries and aquaculture. The Subprogram also aims to elevate awareness of the need for, and improve the use of, social science and economics research, as well as to enable such research to be better integrated with traditional fisheries science research.		The Sub-Program has a Strategic Plan for 2017-2020.	
Reviewers Comments	Consultation with the Human Dimensions Subprogram indicates that there are opportunities for collaboration with people development, particularly where capacity building (behaviours and skills) are pre-requisites for adoption of research outcomes from the Subprogram.			

<b>Other Relevant Programs FRDC is not involved in but may consider</b>				
<b>Young Farming Champions</b>	Young Farming Champions (YFC) is aimed at identified youth ambassadors and future influencers working within the agriculture sector. Because they are young they relate to other students and can play a role in breaking down stereotypes of farming and agricultural careers. The program involves a series of Sydney based workshops, working with communication, marketing and professional development experts. The focus is developing confident, independent, reflective thinkers who can share their story and their personal experiences, while voicing their own opinions about agricultural issues in their industry and more broadly. 75 young people have completed the course.			\$10,000 per year per student
Reviewers comments	YFC was established 10 years ago. An original driver was industry concerns about social licence to operate and the need to develop young advocates to tell the story of industries to other young people. Given the concerns raised in this review by stakeholders about social licence to operate YFC could be a positive avenue for FRDC to support. YFC equips and encourages young people who wish to be advocates for their industry to have a voice. A review by Zoe Routh for Cotton RDC in 2016 found YFC to be very good value for money against what is achieved. A key strength/opportunity of YFC for FRDC is that it creates an opportunity for young fisheries and aquaculture people in tertiary studies to interact with a diverse group of other young people who have a passion for agriculture. The age group is 19 to 30 years. YFC is also an avenue to encourage young people to continue to pursue a career in fisheries and aquaculture. Could YFC be suggested/offered through IPA/RAC sector PD plans? Could IPAs/RACs co-fund placements? YFC also offers specialist professional development workshops – such as Policy, as part of support for the alumni network. YFC and Horizons are similar in their offerings. YFC is open to university and VET enrolled students.			
<b>Horizons</b>	Horizons is a scholarship for students enrolled in full time study, which supports their last two years of study. A bursary is provided along with professional development workshops and industry work placements.			\$5000 per year for two years
Reviewers comments	Horizons offers the opportunity for FRDC to encourage students studying fisheries and aquaculture relevant degrees to motivate and encourage them to pursue careers in the industry. FRDC could support one or two Horizons scholars per year in a targeted way partnering with lead universities (UTAS/JCU) and industry. The Horizons and YFC offering seems quite similar. YFC may be more geared toward developing advocacy and influence skills while Horizons assists young people to pursue careers in sectors through industry placements. Horizons targets university students not VET.			

<b>Milparanga</b>	Milparanga is a leadership development program run by ARLP for Aboriginal and Torres Strait Islanders aged 21 and over. The aim is to support indigenous Australian leaders to grow as individuals, develop leadership capabilities including governance and decision making, co-create robust conversations and broaden their perspectives toward acting together for the greater good.	11 days, 2 sessions		Sponsor \$12,500 +gst Participant \$200
Reviewers comments	If FRDC has an objective of creating the enabling environment for an indigenous person to join FRDC Board which also implies increased presence on RACs and other FRDC advisory committees. Indigenous leadership require specialist skills. Further exploration of whether FRDC should sponsor a Milparanga position is warranted.			
<b>Proposal: FRDC Internships Program</b>	Models of internship programs include the ACIAR Student Internships and APR Intern. These programs create the opportunity for Masters/PHD students to engage with industry to solve industry problems. It provides a cost-effective way for industry to access new thinking/skills and a way of encouraging people to pursue careers in the industry. Cost is around \$20,000 for 3 months.			
Reviewers comments	Internships are a very cost-effective way of FRDC building relationships with early career researchers to create pathways into industry and the can be coordinated in a low-cost way. FRDC could do this as a stand-alone activity or could partner with an existing program such as APR Intern. The benefit is the approach is targeted around key industry questions/problems and can be used as a pathway into careers for the industry. It can be assistive in supporting and motivating people to continue a career in the industry or in research. Support for internships would be a positive response to some of the findings of the Lovett/Ord review sending a positive signal to fisheries and aquaculture tertiary education institutions. Could a similar internship model be explored in VET??			

## Appendix 4: Project List – FRDC Projects >20% attributed to People Development Outcomes 2013-2018

2018-016	Improving data on Aboriginal and Torres Strait Islander marine resource use to inform decision-making
2018-026	e-fish - An Integrated Data Capture and Sharing Project
2018-092	FRDC communication of evidence-based information on the healthfulness and sustainability of seafood to Health Professionals
2018-106	Identifying electronic platforms to increase safety at sea in the Australian commercial fishing fleet
2017-012	Investigating social acceptance for the wild catch commercial fishing industry of Southeast Queensland
2017-039	Increase the participation and employment of Indigenous people in the NT commercial fishing, management and seafood industry
2017-046	What's stopping you from protecting yourself and your mates? Identifying barriers to the adoption of safe work practises in the small-scale wild catch commercial fishing industry
2017-058	Fish-X – Shifting fishing and aquaculture to an entrepreneurial culture
2017-069	Indigenous Capacity Building Program
2017-089	Fisheries Digital Data Framework: A workshop to share vision, evolve requirements for fisheries data
2017-102	Reducing the Number of Undefined Species in Future Status of Australian Fish Stocks Reports: Phase Two - training in the assessment of data-poor stocks
2017-116	Fisheries managers workshop
2017-121	People Development Program: Indigenous development scholarship - Culture based fisheries training course in Vietnam
2017-123	The role of the recreational fisher in the stewardship of the Southern Bluefin Tuna fishery
2017-193	Building biosecurity capability across the wild harvest fisheries
2017-194	SeSAFE - delivering industry safety through electronic learning
2017-231	To develop a national marine safety extension resource toolkit and to trial with all fisheries jurisdictions
2016-104	Socio-ecological assessment of the ecosystems, industries and communities of Spencer Gulf
2016-148	Assessing the people and capability framework for the aquaculture industry
2016-204	Indigenous business development opportunities and impediments in the fishing and seafood industry - 'Wave to plate' establishing a market for Tasmanian cultural fisheries
2016-206	Indigenous fishing subprogram: Business Nous - Indigenous business development opportunities and impediments in the fishing and seafood industry
2016-244	TSRA: Assessing direct export feasibility, marketing and branding opportunities for Torres Strait Fisheries derived products
2016-306	Innovation in the seafood sector and the development of capacity
2016-406	Australian Society for Fish Biology: Scientific networking, early career development and international engagement
2016-409	WINSC - Providing pathways for the involvement of women in seafood industry development
2016-411	Create a matrix of skills and capability building priorities across FRDC partners and advisory groups
2016-418	National people development: Building education and training pathways for research and development adoption
2016-800	Future Oysters CRC-P Management and Extension
2015-041	The development of SAFS, FishNames, FRDC, FishFiles and Seafood Standards

	websites and web database
2015-205	Indigenous fishing subprogram: mapping livelihood values of Indigenous customary fishing
2015-401	Assisting commercial and recreational organisations adapt to national maritime safety standards
2015-402	Growing future leaders in recreational fishing 2016 and beyond: Vic, Tas, NSW and SA
2015-403	People development program: Peter Dundas-Smith scholarship - Eric Perez (Exploring Leadership Development Capacity within the Fisheries Research and Development Corporation in the context of Rural Research Development Corporations)
2015-405	Establishment of a Professional Association of Australian Fisheries Managers
2015-501	Empowering recreational fishers as champions of healthy fish habitat
2015-505	Identifying opportunities for developing community supported fisheries in South Australia's small scale, multi-species, multi-gear community based fisheries
2014-226	Indigenous Fishing Subprogram: Improving the recognition and integration of traditional owner customary fishing and ecological knowledge in the management of Victoria's fisheries
2014-403	Aquatic Animal Health Subprogram: Development of a national aquatic animal health curriculum for delivery by tertiary institutions
2014-404	Indigenous fishing subprogram: Planning, developing and coordinating Indigenous input to the Research, Development and Extension (RD&E) for Australia's fishing community - Indigenous RD&E Subprogram (IRDES) management
2014-721	Seafood CRC: Australian Seafood Industries Quantitative Genetics Analysis and Training Services 2014-15 (2014/721 Communal)
2013-017	Optimising the management of tropical reef fish through the development of indigenous scientific capability
2013-024	Professionalising Industry - NSW Pilot
2013-410	RD&E capability audit and assessment for the Australian fishing and aquaculture industry 2013
2013-414	Aquatic Animal Health Subprogram: Review of vocational education courses on aquatic animal health available to fisheries and aquaculture sectors in Australia for the FRDC Aquatic Animal Health Subprogram (AAHS)
2013-239.20	Leaders idea forum - Seafood Community Think Tank- "A Seafood Community United by Ideas"
2013-711	Seafood CRC: Centre of Excellence Science Seafood & Health (CESSH): Post Harvest Research Program
2013-748	Seafood CRC: Future Harvest Master Class in Fisheries Economics - Revision & Extension (2013-748 Communal)
2013-748.10	Seafood CRC: a best practice protocol and methodology for economic data collection in Australian fisheries
2013-748.20	Seafood CRC: addressing roadblocks to the adoption of economics in fisheries policy (2013/748.20 Communal)
2013-748.30	Seafood CRC: Introduction to the use of bioeconomics in fisheries management for key decision makers
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