



**Empowering Industry -
Developing an Industry-Driven RD&E Model for the
Australian Fishing and Seafood Industry**

'Partnerships to improve efficiency, profitability and performance'

FINAL REPORT

FRDC Project No 2009/300

Ian Knuckey and Chris Calogeras

2015



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FISHERIES RESEARCH &
DEVELOPMENT CORPORATION


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

Researcher Contact Details

Name: Ian Knuckey
Fishwell Consulting Pty Ltd
Address: 27 Hesse St Queenscliff VIC 3225
Phone: +61 3 5258 4399
+61 3 5258 1599
Email: ian@fishwell.com.au
Web: www.fishwell.com.au

FRDC Contact Details

Address: 25 Geils Court
Deakin ACT 2600
Phone: 02 6285 0400
Email: 02 6285 0499
Web: frdc@frdc.com.au
www.frdc.com.au

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GLOSSARY

Acronym	Description
ACORF	Advisory Council On Recreational Fishing
ACWA	Aquaculture Council Of Western Australia
AFANT	Amateur Fishermen's' Association Of The Northern Territory
AFMA	Australian Fisheries Management Authority
ANRO	Australian Agriculture and Natural Resources Online
APPEA	Australian Petroleum Production & Exploration Association
ARLP	Australian Rural Leadership Program
AUF	Australian Underwater Federation
BOD	Biochemical Oxygen Demand
CFA	Commonwealth Fisheries Association
CHFC	Coffs Harbour Fisherman's Cooperative
CI	Co-Investigator
EOI	Expression of Interest
FRAB	Fisheries Research Advisory Board
FRDC	Fisheries Research And Development Corporation
GFCC	Geelong Food Co-Products Cluster
GoC	Gulf of Carpentaria
HCWG	Hand Collectable Working Group
IAC	Interim Assessment Committee
IMAS	Institute For Marine & Antarctic Studies
IRG	Indigenous Reference Group
MAC	Management Advisory Committee
MFM	Master Fish Merchants
MPA	Marine Protected Area
NAISMA	North Australian Indigenous Land & Sea Management Alliance
NLC	Northern Land Council
NPF Inc	Northern Prawn Fishery Incorporated
NSIA	National Seafood Industry Alliance
NSILP	National Seafood Industry Leadership Program
NSWDoC	NSW Department Of Commerce
NTGFIA	Northern Territory Guided Fishing Industry Association
NTSC	Northern Territory Seafood Council
NTSIA	Northern Territory Seafood Industry Association
OTL	Ocean, Trap And Line
PI	Principal Investigator
PIRSA	Primary Industries And Regions South Australia
QFRAB	Queensland Fisheries Research Advisory Board
QSIA	Queensland Seafood Industry Association
R&D	Research and Development
RD&E	Research Development and Extension
SETFIA	South East Trawl Fishing Industry Association
SFM	Sydney Fish Market
SFS	Southlands Fish Supplies
SIV	Seafood Industry Victoria

SSA	Seafood Services Australia
SWALSC	South West Aboriginal Land And Sea Council
TALSC	Tasmanian Aboriginal Land And Sea Council
TFIC	Tasmanian Fishing Industry Council
TLC	Tiwi Land Council
TRF	Tactical Research Fund
TRL	Tropical Rock Lobster
TSIC	Tasmanian Seafood Industry Council
UTAS	University Of Tasmania
Vic FRAB	Victorian Fisheries Research Advisory Board
WAFIC	Western Australian Fishing Industry Council
WINSC	Women's Industry Network Seafood Community
WRL	Western Rock Lobster
WRLC	Western Rock Lobster Council

1. EXECUTIVE SUMMARY

The first 'Empowering Industry' project (FRDC 2007/304) demonstrated that there was a need to better focus research and development projects to specifically address industry requirements. Empowering I was an overwhelming success: generating 35 projects of which sixteen were eventually funded through a variety of sources. Based on this success 'Empowering II' sought to develop an ongoing, cost-effective and transparent process, whereby the best industry RD&E ideas, on a national or regional scale, could be obtained, linked with the most suitable RD&E providers, and developed into successful projects with valuable industry outcomes in efficiency, profitability, and capacity building.

The first stage of the Empowering II project was to re-engage with industry by advising a wide range of stakeholders (indigenous, commercial and recreational) of the project aims, methods and proposed outcomes. This was undertaken through electronic communication (i.e. phone, email, and web information), industry magazines and meetings. In addition, all FRABs were contacted to request their input to the process. One goal of Empowering II was to assist Industry to build closer linkages with the FRABs and have better understanding and input into the FRAB process.

To consolidate and record all of the industry ideas and ensure a transparent process of linking industry with RD&E providers, a website was developed (www.empoweringindustry.com). The process of establishing the Empowering website began in August 2009 with the development of website specifications and tender documents. There was a desire to link the empowering website with the SSA website to utilise their front-end access and security facilities, and to benefit the approximately 900 SSA members. We also linked with the Aquaculture Council of Western Australia to be able to access their national database of fisheries and aquaculture funding sources. Website implementation experienced some initial delays largely due to technical issues in the linking of the Empowering and SSA databases. These were overcome and the Empowering website became operational during 2010.

The first round of national meetings were held between August and December 2009 and involved over 50 face-to-face and teleconference meetings with commercial, recreational and Indigenous stakeholders across all jurisdictions. Meetings were initially with the peak bodies and then moved down to working with more grassroots members. Depending on the number and background of the participants, meeting formats included formal presentations, facilitated workshops, round table discussions, and one-on-one meetings, in various venues. The basic format for each meeting was that participants recorded individual ideas on improving the value (environmental, economic or social) of their industry or business. These were then grouped and ways to make improvements through RD&E were discussed. About 200 industry ideas were identified in this manner and these were grouped into 17 preliminary themes. Summaries of key themes were provided to the Social Science Sub Program and to the 2010 Annual FRAB FRDC Planning Workshop. From these, four themes were identified as priorities of which the first three were explored in the first round of national themed workshops:

- Strengthening membership communication and supporting peak industry bodies of the Australian fishing and seafood industry;
- Empowering family and small fishing and seafood industry businesses;

- Reducing freshwater consumption/discharge from fish processing factories; and,
- Incorporation of Indigenous knowledge into contemporary fisheries management.

From the above process, six projects were developed into proposals of which two were funded and successfully completed:

- Improving two-way membership communication in peak industry bodies of the fishing and seafood industry; and,
- Assisting fishing businesses to adjust to implementation of quota control management in their fishery.

A second round of national meetings was held during 2010, with a greater emphasis on meeting with alternate groups or sectors. Meetings with over 100 individuals were held around Australia (including Torres Strait). From these meetings it was initially proposed to have up to four themes in the second round of national workshops. The first of these was related to the influence of seismic activity on the fishing industry. As interest in this workshop developed, it became apparent that it was going to be a far larger and more broadly attended workshop than those in the previous year. As such, after discussions with FRDC, it was agreed that the resources for the second round of themed workshops should be singularly focussed on the seismic workshop. The seismic workshop was a success and attended by almost 30 participants, including people from Commonwealth and State governments, fishing industry members from around Australia, the oil and gas industry, and researchers. This process led to the development of two key project themes. Projects along these lines were developed, funded and are now underway:

- Improved processes and policies to minimise impacts of seismic surveys on fishing operations and businesses; and
- To build on an existing UTAS project to incorporate a desktop study to identify if it was possible to determine impacts of seismic activity on fishing fleet activities.

Although the two years of national meetings and themed workshops were successful and achieved the project objectives and milestone, it was noted that in parallel with the Empowering II process, there were improvements in the national and regional RD&E planning and funding process, and FRABs were endeavoring to have a more coordinated and strategic approach to developing RD&E. In addition, there was a focus and investment in developing strategic RD&E plans, and national processes to adopt these plans to guide future research. This resulted in a diminishing need for the Empowering II project — as it was originally designed— to work in this space. This higher level approach, however, also increased the likelihood that once again, there would be less opportunity for grass-roots industry needs to be heard. For this reason FRDC was requested to allow the Empowering II project to be put on hold while it was determined how the Empowering Industry framework could be adapted to most effectively benefit industry, FRDC and the FRABs.

In January 2013 the investigators met with FRDC staff and Jill Briggs (PI of FRDC Project 2011/400 'Improving two-way membership communication in peak industry bodies of the fishing and seafood industry') to scope the future of the Empowering Industry project. It was agreed that the underlying objective of Empowering Industry remained sound, and that it should remain as a tool to facilitate the capture of the RD&E needs of the fishing and seafood industry and bring them into the higher level research prioritisation process. During these discussions it was noted that, while some FRABs were receiving well-coordinated and

representative advice from industry associations about RD&E priorities, this was not necessarily universal. In the states where there were difficulties, the reasons for the problems varied, but lack of cohesive or fully representative industry advice was a significant issue, as was the relatively new membership or functioning of the FRABs. The Queensland and Victorian FRABS agreed to be case studies to use the Empowering Industry approach and framework to feed into their prioritisation process.

The Empowering Industry website was upgraded and modified to better suit this FRAB role. Part of this involved removing the link to the now defunct Seafood Services website and creating a stand-alone front end with a secure, internal member database with the ability to be used by FRABs as a means to enter their research priorities, call for expressions of interest and review and categorise the proposals.

As part of the Victorian and Queensland FRAB case studies, key industry groups from Victoria and Queensland were mapped to relevant association levels. These maps and associated contact details formed the basis for the broader industry consultation. All relevant associations were contacted by phone to obtain information about the most important issues in their sector, and how those issues could be addressed through research. As with the national approach over previous years, key RD&E themes were established based on the input from Industry, and presented to each FRAB to assist in their 2014 research prioritisation process.

Based on this trial, it was estimated that industry data collection, entry into the Empowering website and analysis of key themes could be done at an annual cost of less than \$15,000 for each FRAB. The trial FRAB case studies showed that the current Empowering process and website is a valuable and cost effective means to more closely link industry needs with FRAB priorities, and that it provides a direct way to engage with a diverse range of stakeholder groups in the commercial and recreational sectors. Linkages with Indigenous groups were however, not particularly successful, and seeking to work more closely with the IRG may be a way to better engage with this sector.

Subsequently, at least two FRABs have independently sought to adopt the Empowering process as part of their ongoing RD&E priority setting process, and Queensland has used the data from the 2014 Empowering Survey as a basis for reviewing its 2015 priorities. There may be scope for this to be expanded nationally to ensure consistent cover and methodologies across FRABs.

2. KEYWORDS

Industry RD&E, Industry empowerment, industry development, capacity building.

3. INTRODUCTION

The Fisheries Research and Development Corporation (FRDC) project 2007/304, 'Empowering stakeholders to initiate and advance Research and Development (R&D) projects in the seafood industry' (referred to as Empowering I) demonstrated that there is a need to better focus R&D to specifically address Industry's requirements. The Empowering I project sought to expand the R&D base in terms of project scope, service providers and funding sources to best meet industry stakeholder needs, focusing on improving efficiencies, profitability and performance across all industry sectors where relevant (Indigenous, commercial, recreational). The Empowering I project was an overwhelming success in generating industry focused R&D, leading to 35 projects being developed through six potential funding sources (Knuckey *et al.*, 2008). Sixteen of these projects were eventually successful. This far exceeded the expectations for project development. All of the Empowering I projects had an industry person as the Principal Investigator (PI) or Co-investigator (CI). In this way, another key outcome was addressed by building capacity within the broader seafood and fishing Industry, to take greater control and responsibility in the development and conduct of R&D projects. Further, through the broad range of funding sourced, the project greatly increased leverage on Industry and FRDC R&D spending.

Based on the success of the Empowering I trial project, there was a call for the development of some ongoing mechanism to deliver a similar service to the broader seafood and fishing industry, on an ongoing basis. Despite its overall success, it was felt that there were a number of areas in which Empowering I could be improved. Most notably, was the need:

- for a more transparent process by which industry Research Development and Extension (RD&E) projects could be identified and linked with the most appropriate service provider;
- to have a more cost-effective means of accessing industry RD&E ideas, especially in the recreational and Indigenous sectors; and,
- to have a more coordinated approach to developing projects in a national or regional context.

This current FRDC Project No 2009/300 'Empowering Industry - Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - Partnerships to improve efficiency, profitability and performance' (referred to as Empowering II) sought to build on the success of the Empowering I project in the development of an ongoing cost-effective and transparent process, whereby the best industry RD&E ideas, on a national or regional scale, can be obtained, linked with the most suitable RD&E providers, and developed into successful projects with valuable Industry outcomes in efficiency, profitability, and capacity building.

The Empowering I project revolved around a high level of face-to-face consultation with the seafood and fishing industry. The need for an ongoing process to achieve similar outcomes was highlighted by a broad range of industry representatives, and was specifically raised as an important issue at the 2008 FRDC FRAB workshop. Discussions were held with a range of industry stakeholders regarding the benefits and constraints of building on the Empowering I project. The current project focused on increasing

consultation across sectors and jurisdictions with a view to determining broad RD&E themes on a national or regional scale. The Empowering I project identified an ongoing need for a process to enable Industry to identify and develop RD&E ideas into successful projects, partnered with suitable providers and funders.

Empowering II sought to improve on the model by developing an ongoing, cost-effective and transparent process that builds capacity within Industry to identify and initiate RD&E, on a coordinated national or regional scale, using the most suitable service providers. It was hoped that this would lead to the development of Industry driven, effective and efficient projects that aligned with strategic directions addressing critical issues such as economic and social sustainability across sectors and jurisdictions.

Building on existing industry websites (e.g. SSA, FRDC, WAFIC), a web-based project registry was developed which sought to ensure a transparent process to link industry with RD&E providers, and to facilitate cooperation in the development of projects.

A key focus of Empowering II was to assist Industry to build closer linkages with the FRABs and understand their requirements, how to achieve them, and to encourage cooperation and coordination so as to harmonise RD&E across and between sectors and jurisdictions. The project also sought a method to engage and involve the FRABs so they better understand Industry's broader RD&E needs (less focus on agency and researcher capacity).

The process also sought to lead project proponents to seek out the best service providers regardless of their location, possibly leading to the development of 'centres-of-excellence' so as to optimise skills and increase return on RD&E dollars.

This project also sought to identify and evaluate Industry RD&E ideas, provide a means to put projects into context and assess their suitability, prior to moving further into funding cycles or identifying other options to achieve the desired outcomes.

Although many of these outcomes were achieved, Empowering II took place during a period when there was an evolution of the RD&E planning and funding process at the national and regional levels. Improvements in the FRAB process also saw a more coordinated and strategic approach to developing RD&E requirements for the fishing and seafood industry at a high level. In addition, there was a focus and investment in developing strategic RD&E plans, and national processes to adopt these plans and instigate appropriate research. This was undertaken in an environment of decreasing RD&E funding availability, with an increased need to utilise funds to best achieve the greatest Industry good.

This resulted in a diminishing need for the Empowering II project — as it was originally designed — to work in this space. This higher level approach, however, also increased the likelihood that once again, there would be few resources devoted to meeting grass-roots industry needs. For this reason the Empowering II project sought a series of variations to the project objectives and milestones to seek to identify how best to utilise the Empowering Industry framework to most effectively benefit industry and FRDC. This is discussed in the report.

4. OBJECTIVES

Initial

1. Empower and build capacity within the broader seafood and fishing industry to identify and initiate relevant RD&E projects with suitable partners.
2. To develop an ongoing, cost-effective and transparent process to link industry with suitable RD&E service providers and funding options
3. Implement a cost-effective process for one-on-one assistance for industry to engage in the RD&E process.
4. Build on, and coordinate, web-based linkages between existing databases to cover the full range of RD&E service providers required by Industry.

Additional

5. Assess the effectiveness of the Empowering methodology and website to compile and prioritise Industry RD&E for FRAB consideration (using Victoria and Queensland as test cases).

5. METHOD

This project sought to formalise and improve on the processes that were developed through the Empowering I project. The focus was especially in relation to improving transparency, further building capacity, and to identify, develop and manage RD&E projects that have regional or national significance. The following activities were undertaken in order to achieve this:

- engage with industry to advise of the new project's aims, methods and proposed outcomes;
- develop a cost effective, and Industry supported and driven process to identify and collect potential RD&E projects that assist in addressing national or regional RD&E themes in a coordinated manner;
- develop a process to assess potential projects to ensure that only those that meet requirements for well written and focussed applications are developed, with a view to addressing issues of national or regional significance;
- develop a transparent and inclusive means to link potential projects with potential service providers;
- utilise the pool of talent, knowledge and experience contained in the graduates from the National Industry Seafood Leadership Program (NSILP) and the fishery orientated graduates of the Australian Rural Leadership Program (ARLP) to assist in coordinating project themes; and,
- provide feedback to FRDC and the FRABs on the findings relating to industry understanding and uptake of RD&E, to develop a greater level of understanding between Industry and the FRABs.

The areas of RD&E specifically targeted through this project were capacity building and collaboration to improve efficiency, profitability and performance.

Stage 1: Re-Engaging With Industry

The first stage of this project was to re-engage with Industry by advising a wide range of stakeholders (from the three key sectors - Indigenous, commercial and recreational) of the project aims, methods and proposed outcomes. This was generally undertaken through electronic communication (i.e. phone, email, web information) and industry magazines and meetings.

In some instances, especially where particular sectors were underrepresented during the Empowering I project (e.g. processing, recreational, aquaculture and Indigenous representatives), face-to-face meetings were used to establish contact.

A key message revolved around the fact that this project had moved from an individual project development basis to a more coordinated approach across sectors and regions, with a greater focus on improving the value of, and developing efficiencies in, whole of industry.

It was also proposed to use the large pool of alumni of the NSILP (100+ graduates) and appropriate fishery orientated people from the ARLP (20+ graduates) to further expand the range of industry groups and participants involved in this project.

In addition, all FRABs were contacted to request their input to the process, especially in the form of stakeholder contacts, attendance at workshops, and through feedback from the workshops. To ensure that the greatest possible exposure to FRDC's investment in the process could take place, the FRDC Communication Manager was engaged to determine the best methods to achieve this outcome.

Stage 2: Identification of National and Regional Industry RD&E Priorities - 1st Round

What became apparent through the Empowering I project was the need to establish lines of communication with, and between, industry stakeholders so as to seek out and develop potential projects of significance that may fall outside existing agency-driven RD&E. A face-to-face approach, especially in the initial stages of project development, appeared to be the most effective means of establishing links, but this came with a cost and limitations.

As a result of the Empowering I project, some concerns were levelled at what was considered by some, a shotgun approach to project development (i.e. not in a coordinated strategic manner). Although a large number of projects were submitted and approved under the Empowering I project, there was a certain lack of coordination across all projects to address national or regional priorities at the highest level — most focussed on addressing key industry needs right there and then.

In addition, at this time there was a focus on the development of a national RD&E strategy, and in that climate the focus was on strategic national approach, and how to align with the Major-Support-Link concept. The philosophy behind Empowering 1 may therefore not have gelled with that focus, and funding for enterprise level RD&E was limited.

To address this coordination issue, and develop a system that could identify bigger picture RD&E priorities nationally or regionally, this project used focussed workshops to bring together industry sectors to identify RD&E needs. The opportunity was also used to provide information to participants on FRDC's RD&E priorities, and to gain participants' feedback on the priorities for FRDC.

Separate workshops were arranged with individual sectors (i.e. Indigenous, commercial, and recreational) in each jurisdiction to identify their key issues. Workshops were arranged working closely with the various peak industry associations and FRABs. The invitee list covered participants from along the supply chain, as well as FRAB members. NSILP and ARLP graduates were also invited so as to broaden the awareness and attendance at meetings through their networks and to encourage novel approaches.

The workshops sought specific ideas from each participant as to what they believed would add 'value' to their industry / sector or business. These ideas were collated and where possible, aggregated into common themes. Importantly, 'value' was not just based on pure economic return, but on the broadest sense of value, including ecosystem, economic and social benefits.

The next phase involved proponents working in smaller groups to workshop the common themes, with a view to developing potential project concepts to address the themes. Where possible NSILP and ARLP graduates were incorporated into these groups to assist in supporting outcomes from each group. The facilitators provided assistance to each working group to ensure that participants were aware of the requirements, and had the tools to achieve them. Outcomes were documented at each workshop and signed off as representing the key findings. The participants involved in each group were identified for follow up actions.

Workshops were repeated in each jurisdiction, and from that process a number of key national or regional industry focussed RD&E ideas were identified within and across sectors and jurisdictions.

Up to three days in total were put aside to run the individual workshops for the three main sectors (Indigenous, commercial and recreational) in each jurisdiction.

Stage 3: Coordination of Project Development to Address the Identified National Industry RD&E Priorities - 1st Round

On completion of the 1st round of national workshops, key RD&E needs identified from each workshop were aggregated and assessed on a national and regional scale to group similar concepts into clusters. This led to the production of documented national and regional industry focussed RD&E needs that stakeholders believed added 'value' or efficiencies to Industry. From this list, a number of themes of national or regional significance were highlighted. These RD&E themes were then workshopped by pulling together key Industry people from the regional workshops, to further progress the development of appropriate RD&E projects that could assist in resolving the matters that had been identified. One day workshops were scheduled to coincide with other organised meetings where possible, or when other opportunities for the PI or CI to meet with prospective participants arose.

During each theme-based workshop, clusters of potential project concepts that could address the national and regional industry focussed RD&E needs were developed. The end result of the national and theme-based workshops was the development of a series of potential Industry focussed project outlines that could be undertaken to advance the RD&E needs of Industry in line with the identified national and regional industry focussed RD&E needs.

An Interim Assessment Committee (IAC), made up of the PI, CI and a FRDC representative (Crispian Ashby), was developed in case there was a need to screen potential project outlines to ensure they addressed nationally identified themes, and to determine if they needed improvement.

Stage 4: Transparent and Inclusive Link of Potential Projects to Service Providers

During the Empowering I project, some people perceived that there was a lack of transparency involved in linking potential projects with potential service providers. As Empowering I was primarily focussed on identifying whether there was a need for the project identification service, the matching process did require some improvement. Empowering II provided a clearer process and a high level of transparency in the matching process. This was achieved by providing a web-based link between potential projects and service providers.

A brief overview of all the potential Industry focussed project outlines, developed during the national and theme-based workshops, was posted on a new linking website (<http://www.empoweringindustry.com/>). This was to allow potential service providers to contact the proponent group, or vice-versa, with a view to further developing full projects. From that point, discussions were to be undertaken between proponents and service providers to further develop the project and to target possible funding sources.

The PI and CI maintained contact with potential project proponent groups to act as a link between the proponent and service provider, at least in the initial stages. This was to assist in developing the proposals in such a way as to ensure that the projects aligned with the identified national and regional industry focussed RD&E needs.

Stage 5: Assessment of Potential Projects Prior to Submission to Funding Providers

For quality control, the IAC reviewed each application to ensure that they met the identified RD&E needs, were of a standard suitable for the FRABs, or other funding bodies, and included appropriate extensions to encourage adoption of outcomes. Proponents were advised of any deficiencies in their proposals and, if required, provided with advice on how to improve them.

The PI and CI liaised with the Executive Officers (EOs) of the FRABs to ensure that their requirements were met with respect to the project's quality and content. Quality applications that fell outside high priority areas for each jurisdiction could still be sent to the FRABs for consideration, with a view to expanding the range of RD&E projects that the FRABs considered.

On completion of this process, individual projects were submitted to the appropriate funding provider for assessment. Over the three year life of this project, there were two complete cycles of the following process (albeit in an abridged form):

- identification of national industry RD&E priorities through regional workshops;
- coordination of project development on a national scale;
- linking potential projects to service providers; and,
- assessment and submission of projects to funding providers.

Stage 6: Model for Developing and Managing Industry RD&E

It was proposed, on the completion of this project, to undertake an assessment as to the sustainability, effectiveness and cost efficiency of the process, and whether projects that have increased the value to Industry were being developed. In addition, it was hoped to see if, in the longer term, some components of the process could become self-funding operations, by proponents and / or service providers paying a fee to register on or use the linking website.

Stage 7: Additional Milestone – Assess Representation of FRAB

As outlined in the Introduction, Empowering II took place during a period where there was an evolution of the RD&E planning and funding process at the national and regional levels. This improved coordination and planning of the RD&E process at a high level made some aspects of Empowering II redundant. It was felt that although most Milestones were achieved at the time, the Empowering model's future relevance needed to be reassessed. As such, the project was placed into abeyance whilst the PI, CI and FRDC sought to identify how best to utilise the Empowering II framework to most effectively benefit Industry and FRDC into the future.

Subsequently, during 2013, it was agreed that the Empowering II project would vary the remaining milestones to assist FRABs in compiling and prioritising RD&E ideas. The Queensland and Victorian FRABS were chosen as case studies for this milestone.

Key industry groups from Victoria and Queensland were mapped to relevant association levels. These maps and associated contact details formed the basis for the broader industry consultation. It was proposed to contact all relevant associations, and where successful, the contacts were to be interviewed to obtain information about the most important issues in their sector, and how those issues could be addressed through research.

Each interview was written up as a project idea, and entered into the Empowering Industry website. Projects were summarised by common themes and presented to the relevant FRAB.

6. RESULTS AND DISCUSSION

Reengaging With Industry

Communication was made via email, phone and personal contact with commercial, recreational and Indigenous people, groups and associations, advising of the project's

objectives, methodology and processes. Particular effort was made to re-engage with industry members who were involved in Empowering I, and to establish links with those stakeholders who were not as well represented in that project.

As there were some delays in developing the formal Empowering Website, a temporary website was developed to hold material in the interim. To provide a focal point for discussions a number of informative documents were prepared to:

- Summarise outcomes from Empowering I (Attachment 1);
- Explain how the Empowering II process would work (Attachment 2);
- Collect Industry ideas (see Attachment 3 for example); and,
- Invite stakeholders to participate or attend meetings (Attachment 4).

Through discussions with stakeholders, a preliminary itinerary was developed for the first round of regional meetings. In addition to this, the Investigators were invited, or arranged to provide information, to a range of stakeholders through other forums. There was solid support from those the Investigators had discussion with during this phase of the project's development.

A four page flyer titled 'Empowering the Fishing and Seafood Industry Research, Development and Extension' was developed and widely distributed at this stage, to re-engage with Industry and to provide them with details of the project and process (see Attachment 5 for a copy of the 4 Page Flyer). See Figure 1 /Attachment 4 and Figure 2 / Attachment 2) which outlines the Empowering II process and linkages.

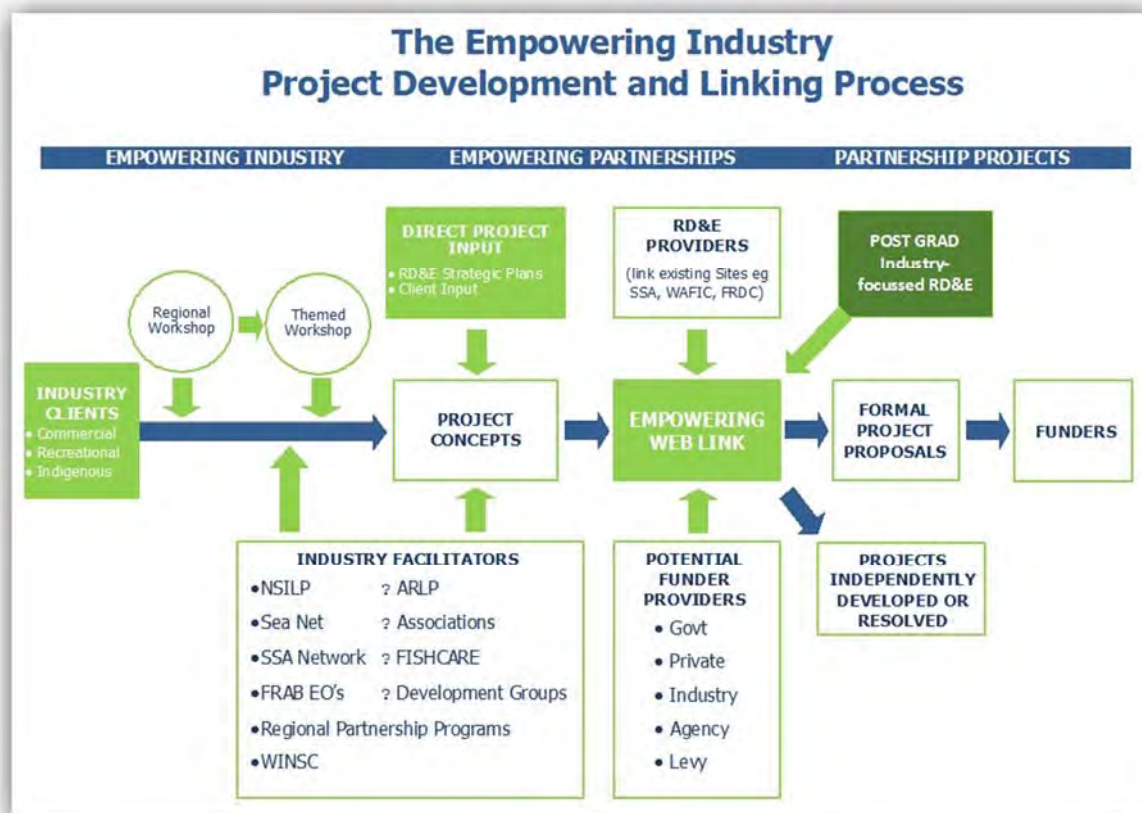


Figure 1: Empowering Industry Linking Process

The Empowering Industry Driven RD&E Model



'Empowering Industry RD&E: Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance' (FRDC 2009/300).

4

Figure 2: Empowering Industry RD&E Process Flowchart

Website Linkages and Development

In recognition of the main users of the website, its design and function were kept simple, with clear, large icons to allow users to navigate through the site. A distinctive logo was also developed, which represents the different sectors of the fishing / seafood industry, as well as the value-chain from the fish to the plate. The Empowering Industry website has been fully operational since April 2011 and it has had a number of modifications to increase user friendliness and flexibility in line with the changing focus of this project.

The website concept was outlined to attendees during the first round of regional meetings and the concept has been well supported.

There was ongoing development of an Empowering website from August 2009. This included discussions with FRDC and website development companies and individuals. In the initial reengaging with Industry, it seemed that there might have been an opportunity to enhance, or link, with existing sites. These included;

- SSA - linking with their web based industry directory (approx 900 members) to provide a broad range of RD&E providers
- WAFIC - linking with their web based service providers directory
- FRDC - linking with their web based RD&E providers and through the FRDC RD&E capacity audit
- Aquaculture Council of WA (ACWA) – building on a project developed by the EO, which sourced WA funds to build a funders database.

Website specifications and tender documents were developed and sent to four prospective providers on 30 November 2009. A development timetable for the website was proposed, with a commencement date of February 2010.

During the development of the web specs (they were expanded beyond the original project's brief) and the tender process, it became apparent that the budget provided for the web site development was inadequate. The Investigators identified savings in the project to partly fund that, and FRDC provided an additional \$25,000 to complete the work.

The development of the Empowering Industry website experienced some delays (over 12 months) for a variety of reasons, including an extended tender process, technical issues in the linking of the Empowering and SSA databases, and staffing changes within the website development company, but these matters were addressed and the site was linked with the SSA website. After a period of review, a significant number of technical changes were undertaken to improve its administrative functionality and ease of use for industry members (see Attachment 6 for Website Specifications).

Prior to the consultative phase taking place under 'Stage 7 - Additional Milestone - Assess Representation of FRAB', the first task was to modify the Empowering Industry website to disengage from the complex and not particularly user friendly SSA login and security facilities. Although a lot of time and resources were spent in the initial setup phase making this link, disengagement was necessary to improve ease of use and functionality and structure for industry associations and FRABs. This was completed in late 2013, and a

new, simple to use, one page data collection sheet was also produced to mirror the site's data needs (see Attachment 7 for Revise One Page Data Collection Sheet).

The Empowering Industry website (www.empoweringindustry.com) has been used by a number of FRABs as a means to enter their research priorities and to call for expressions of interest. With the reporting capacity available through the website, each FRAB can now be provided with a copy of key issues identified as part of their deliberations.

In addition, as a result of the 2013 Project Variation, the site now has the capacity to aggregate ideas, link them to themes / priorities etc, so as to be available for FRABs to expand the breadth of their consultative processes. The site remains operational and its functionality has been enhanced to better allow linkages to the needs of the FRABS. This is discussed later in the report in regard to reporting on Stage 7.

First Round National Meetings

The first round of national meetings had a strong educational component so as to spread information about the project through the existing communication channels (associations, peak bodies, committee, formalised groups, NSILP / ARLP alumni), with a view to using these existing channels as a source to enlist 'disciples' to the Empowering II process. A flyer was developed, outlining the project, process and providing a link to the Empowering website (see Attachment 5) for inclusion into industry and agency newsletters, and widely distributed to industry via email.

Coordinating the meetings with all commercial, recreational and Indigenous stakeholders in each jurisdiction proved quite complex, and required a great deal of flexibility.

Meetings were facilitated in a variety of ways, depending on the numbers attending, the sector being met with, and the facilities available. The format for each meeting was based on discussions held with the people / groups with whom the Investigators were meeting. Meeting formats included formal presentations using PowerPoint, facilitated workshops, round table discussions, and one-on-one meetings, in various venues. The important thing was that the meeting arrangements were designed to best meet the client's needs, and to provide them with the most comfort in the process, to encourage engagement.

The first round of meetings were generally coordinated through peak bodies, to utilise their links and to optimise the opportunity to become engaged in the process, as well as to keep them firmly in the loop. It also allowed the opportunity to assess the effectiveness of the existing communication channels to reach grass roots industry. By meeting with the peak bodies first, it also ensured that they had a good understanding of the project prior to the Investigators working at more grass-roots levels with any of their members, thereby avoiding any mixed messages or not utilising communication processes already in place. Success rates based on attendances were variable, but in all instances a range of Industry concepts were collected. Meetings venues and attendee groups or individuals are shown at Table 1.

The basic format for each meeting followed a similar process, participants were required to:

- Provide individual ideas on improving their Industry 'value' (value was identified as being broader than purely an economic value)
- Similar ideas were grouped together
- Ways to make improvements through RD&E were discussed
- Individual ideas were collected on individual data sheets (See Attachment 7 for example), documented and entered onto the Empowering Website.

From the approximately 50 meetings, around 200 industry concepts were identified. This information was entered onto an Excel database whilst the Empowering Website was being developed.

Some noticeable synergies and linkages were identified across sectors and jurisdictions, and a number of sectoral, regional or individual concepts were also identified. A summary of the 17 preliminary themes identified to December 2009, is shown at Table 2. A full list of the Theme, Issues and Individual Concerns is provided at Attachment 8.

Summaries of key themes were provided to the Social Science Sub Program and to the Annual FRAB FRDC Planning Workshop (see Table 2).

With the reporting capacity available through the website, each FRAB can now be supplied with a copy of key issues identified as part of their deliberations. This process was taken further in the 2013 Project Variation, where it was agreed that the Empowering II project would assist FRABs in compiling and prioritising RD&E ideas. The Queensland and Victorian FRABS were chosen as case studies for this milestone. This is discussed later in the report under Stage 7.

Table 1: Summary of Empowering Industry meetings held during 2009

Date	Region	Groups	Sector
August 2009	NT	NLC	Indigenous
	NT	AFANT/NTGFIA	Recreational And Charter
	NT	TLC	Indigenous
	NT	NTSC/SeaNet	Wild Harvest, Aquaculture, Pearling, Processing, Marketing, Environmental
	NT	Darwin Fish Market	Processing, Marketing
	NT	Recreational Fishing Advisory Committee	Recreational
	NT	Darwin Aquaculture Centre	Aquaculture
	Qld	SSA	Service
	Qld	RecFish Australia	Recreational
	ACT	ARLP	Leadership Program
	ACT	CFA (including SETFIA, NPF Inc, SEA, WAFIC, NSIA, State Peak Bodies etc)	Wild Harvest / aquaculture
	ACT	FRDC	Service
	Telelink	OceanWatch/SeaNet	Extension
Sept 2009	NSW	National Alliance Meeting	Peak Body
	QLD	SSA Network	Varied
	WA	RecFish West	Recreational
	WA	Centre of Excellence for Science, Seafood and Health	Education, Post Harvest

Date	Region	Groups	Sector
	WA	SWALSC	Indigenous
	WA	ACWA	Aquaculture
	WA	WRLC	Wild Harvest
	WA	WAFIC	Peak Body, Wild Harvest, Aquaculture
	WA	Challenger TAFE	Education
	WA	Mandurah Licensed Professional Fisherman's Association	Wild Harvest, processing, marketing
Oct 2009	Tas	TFIC/SeaNet	Wild Harvest, Aquaculture, Processing, Marketing, Environmental
	Tas	Tasmanian Divers Association	Wild Harvest
	Tas	Oyster Farmers Association	Aquaculture
	Tas	TALSC	Indigenous
	Tas	TARfish	Recreational
	Tas	Mures	Wild Harvest, Processing, Marketing
	Qld	QSIA Industry forum	Wild Harvest
	Qld	SSA	Service
Nov 2009	Qld	WINSC forum	Representative from all States/ Territory and NZ Wild Harvest, Marketing, Processing, Aquaculture, Government, Environment, Extension, Consultant
	Vic	SIV / SeaNet Melbourne Fish Markets McLaughlin's, Terry's Oysters Sea Merchants	Wild Harvest, Aquaculture, Processing, Marketing, Environment, Extension, Peak Body
	Vic	VRFish	Recreational
	Vic Lakes Entrance	SETFIA Lakes Entrance Co-op	Wild Harvest, Processing And Marketing
	Vic Lakes Entrance	Lakes Tyer Indigenous groups	Indigenous
	Vic Geelong	Victorian Eel growers, Mantzaris Fisheries, Deakin University, AMBACO, Innovation Australia, Geelong Food Co- products Cluster, Austrimi	Wild Harvest, Processing, Marketing, Post Harvest
	SA	FRDC RD&E workshop	Commercial, Recreational, Indigenous Research, Agencies
	Qld	QSIA Workshop	Wild Harvest
	Qld	Moreton Bay Seafood Industry Association	Wild Harvest
	Qld	Sunfish	Recreational
	Qld	Qld Crab Fishers	Wild Harvest
	NSW	ARLP	
	NSW	Prawn MAC	Wild Harvest, Recreational, Environmental, Government, Enforcement
	NSW	La Perouse Local Aboriginal Land Council	Indigenous
	NSW	Oyster Farmers Association	Aquaculture
	NSW	Estuary MAC	Wild Harvest, Recreational, Environmental, Government, Enforcement
Dec 2009	NSW	ACORF	Recreational
	NSW	SFM	Wild Harvest, Processing, Marketing

Table 2: Key themes identified through 1st Round Stakeholder Workshops

KEY THEMES	CONTEXT
Improved Consultation	<ul style="list-style-type: none"> – Internal – Across Stakeholders – Extension Methods – With Govt; Improve Relationship And Engagement – Peak Bodies - members don't see benefits of organisations
Involvement In Management (Inc traditional knowledge)	<ul style="list-style-type: none"> – Recognition Of Sector's Value To Management Process – Understand Govt Strategies Or Drivers – Integration Of Sectors Into Process – Better Define 'No Go Areas' – Stop Restricting Access To Traditional Grounds – Food Security Issues – Lack Of Understanding And Respect – All Sectors Have Something To Offer
Carbon	<ul style="list-style-type: none"> – What Does It Mean – Carbon Uptake – Impacts On Remote Fisheries
Industry Standards And Protocols	<ul style="list-style-type: none"> – Industry/Fishery Standards – Traceability – Product Consistency Quality – Training
Marketing	<ul style="list-style-type: none"> – Price And Pricing – Security – New Markets – Impacts Of Other Markets On Australian Producers – Branding – Supply Chain Approach – Market Industry
Freshwater Use	<ul style="list-style-type: none"> – Reduce, Recycle – Use Elsewhere
Access And Security	<ul style="list-style-type: none"> – Reduce Conflicts Long Tem – Security – Co-Management Options
Stakeholder Lead RD&E, Compliance Inc Data Collection And Extension	<ul style="list-style-type: none"> – Compliance – Recognition Of Industry Collected Data And Analysis – Improve CE Data – Use Fishers – Make Priorities For R&D Well Known
Socio Economic	<ul style="list-style-type: none"> – What Are Fisheries Really Worth – Determine Real Value – Not Perceived
Environment Issues	<ul style="list-style-type: none"> – Oil And Gas – Interactions With Marine Life – Improved Education Of Work Done – Non Fishing Impacts On Sustainability – Climate Impacts On Fisheries – Climate Change Is 50 Years Away!!! And Going Broke
Industry Perceptions	<ul style="list-style-type: none"> – Educate Other Sectors – Improved Public Perceptions – Depoliticise – Promotion Of Good Work Already Done – Better Extension -SeaNet
Business Success Models	<ul style="list-style-type: none"> – Identify Drivers And Inhibitors

First Round Themed Workshops

From the list of potential concepts identified from the first round of stakeholder meetings (see Table 2 and Attachment 8), four themes were identified for the first round national workshops:

- 1) Strengthening Membership Communication and Supporting Peak Industry Bodies of the Australian Fishing and Seafood Industry
- 2) Empowering Family and Small Fishing and Seafood Industry Businesses
- 3) Reducing Freshwater Consumption/Discharge From Fish Processing Factories
- 4) Incorporation of Indigenous Knowledge into Contemporary Fisheries Management.

In addition to these themes, a large number of individual, industry, regional and cross sectoral potential project concepts were identified in the first round of meetings. These were not addressed through this project as there was a national focus to this process. It was anticipated that some of these concepts may be developed in upcoming rounds of funding or through the 2nd round workshops.

The process for each of the themed workshops followed a similar format:

- Individuals who had expressed interest in the theme during the first round of stakeholder meetings were identified, contacted, and invited to participate
- Additional potential participants, who could add value (from within Industry or externally if the particular knowledge or skills set were not readily available), were identified
- The project investigators facilitated a workshop with a view of identifying and documenting the current status of the workshop issues, and RD&E opportunities to address the issues
- From this process one or more RD&E projects were developed by the participants, and either submitted by them directly or an Expression of Interest (EOI) process was undertaken to identify the appropriate project investigator to undertake the work, and further develop the project and seek funding
- A workshop summary was produced and distributed widely
- A steering group was established

Three themed workshops took place to address items 1 to 3 above. A summary of each workshop is provided at Attachments 9, 10 and 11.

From the above process, six projects were developed into proposals. They are listed in Table 3.

The fourth themed workshop (Incorporation of Indigenous Knowledge into Contemporary Fisheries Management) was due to be conducted in June 2010, but was delayed due to a range of issues which took up many of the most relevant Indigenous participants' time. This workshop was eventually deferred indefinitely and with the subsequent development of the FRDC Indigenous Reference Group (IRG), it was felt that it was more appropriate for that group to identify priority areas and actions.

Table 3: Projects developed through Empowering II 1st Round

Project	Status
Empowering Industry RD&E: Improving two-way membership communication in peak industry bodies (commercial, recreational and indigenous) of the fishing and seafood industry.	Project proposal (revised) (FRDC 2011/400) approved by FRDC. Completed ¹
Empowering Industry RD&E: Assisting fishing businesses to adjust to implementation of quota control management in their fishery.	Project proposal (FRDC TRF 2010/229) approved by FRDC. Completed ²
Empowering Industry RD&E: Tactical Research Fund (TRF): Engineering of a generic fish filleting/shucking table to minimise water use, improve product quality and improve OH&S needs.	Project proposal (FRDC TRF) not approved by FRDC. Sought funds from other funding sources. Unsuccessful
Empowering Industry RD&E: Reducing freshwater use in seafood processing.	Project scope developed but awaiting appropriate funder. No further action.
Groote Eylandt: Multi-faceted approach to improving indigenous health status.	Project submitted to BUPA Health Foundation.
A point of first call – WINSC bird in each port project.	Project scope developed but not taken further by WINSC

Second Round National Meetings

A large number of key stakeholder groups were met with in the first round, with a focus at the fishers / producer level. During the second round a greater emphasis has been placed on meeting with alternate groups or sectors. A promotional poster was sent to stakeholders prior to these meetings.

Meetings were held in the NT, WA, Qld, Vic, SA, Tas and Torres Strait, and we made contact with over 100 individuals. Details of specific meetings are shown in Table 4.

¹ see final report at - <http://frdc.com.au/research/final-reports/Pages/2011-400-DLD.aspx>

² See final report at - http://frdc.com.au/research/Documents/Final_reports/2010-229-DLD.pdf

Table 4: Second Round meetings

Date	Area	Group
27/5/10	Darwin	NAILSMA (North Australian Indigenous Land & Sea Management Alliance)
7/7/10	Darwin	Indigenous Business Australia (IBA)
9/7/10	Broome	Kimberly Land Council (KLC)
9/7/10	Broome	Caring for country KLC
9/7/10	Broome	Dampier Peninsular Traditional Owner Working Group
9/7/10	Broome	Broome Aquaculture Centre
13/7/10	Darwin/Groote	ARLP
13/7/10	Groote	Anindilyakwa Land Council
14/7/10	Groote	Aminjarrinja Aboriginal Corporation
14/7/10	Groote	Nancy and Grant – cultural consultants
22/7/10	Townsville	James Cook Uni
27/7/10	Thursday Island	Torres Strait Regional Authority
28/7/10	Thursday Island	AFMA (Australian Fisheries Management Authority)- Thursday Island
28/7/10	Thursday Island	Paul King
28/7/10	Thursday Island	Torres Strait Hand Collectables Working Group (HCWG).
28/7/10	Thursday Island	Yen Loban - TRL (Tropical Rock Lobster) Fisher
29/7/10	Cairns	Jaragun P/L
29/7/10	Thursday Island	Torres Strait Regional Council Deputy Mayor
29/7/10	Cairns	Tropical North Queensland TAFE - Aboriginal & Torres Strait Islander Studies
4/8/10	Cairns	Reef and Research Centre - Managing Director
9/8/10	Darwin	Cross Cultural Consultants P/L
9/8/10	Darwin	Pearl Oysters Propagators P/L
17/8/10	Geelong	Geelong Food Co-products Cluster, including: Mark Scherini (Mantzaris Fisheries Pty Ltd); Steve Mantzaris (Mantzaris Fisheries Pty Ltd); Quinton Wilkinson, (McCain Foods Pty Ltd); Ervin Leong (Unigrain Pty Ltd); Dick Lewis (Regional Recycle); John Fullerton (Industry Capability Network); A/Prof Todor Vasiljevic, and Ms Zeinab Ahmed (Victoria University); Terry Hearne, Ms Keelie Hamilton and Cr Rod MacDonald (Economic Development, City of Greater Geelong); John Hansen (G- Force); Greg Cracknell (NAB Agribusiness Unit); Lindsay Ferguson (Regional Development Victoria); Mark Kelly (Innovative Regions, Enterprise Connect); Tim Emery (Joe Public Marketing); Wayne Street (GFCC) Manager
18/10/10	Darwin	Flicking Fresh P/L
09/11/10	Hobart	Gerry Hopkins - Bird X-Peller
16/11/10	Newcastle	Individuals and Co-op: Marc Eisenhauer - Manager Commercial Cooperative; Jimmy Drinkwater - Estuary General & Estuary Prawn trawl; Ross Fidden - Estuary general, Ocean haul; Rob - Ocean Prawn Trawl
17/11/10	Wallis Lakes	Individuals and Co-op: Graham Byrnes - Estuary general, Ocean haul; Peter Ragno - EG & OH; Phil Roach - OTL; Noel Gogerly - EG, OTL, Lobster; Daniel Gogerly - EG, OTL, Lobster; Greg Parker – OT.
18/11/10	Maclean	Individuals and Co-op: Alan Bodycote - EG, EPT; Rodney Wright - OTL John Robson - CRFC Manager; Keith Webb – EG; Stephen Pateman Jnr – EG; Rowan; Brenton Grills - OTL, EG; Karl Grivins - EG, OH; Anthony Brown - EG, EPT; Barry Dwarde - EG, EPT; Paul Apps - EG, EPT; Yarra Opalniuk – EPT; Tony Mortimer - EG; Glenn Dawson - EPT, EG; Mathew Essex - EPT, EG; Andrew Finn - EPT, EG
19/11/10	Coffs Harbor	Individuals and Co-op: Geoff Blackburn - EG, OH; Shane Geary - CHFC Floor Manager; Phillip Ward - OT; Russell Kerr - OT; Ronald Stewart - OTL, Lobster; Andrew Gilbert - OT; Danny Stewart - OTL, Lobster
15/4/11	Robe	Rock lobster storage/transport
19/4/11	Adelaide	Catherine Barnett - Food SA
10/5/11	Geraldton	Erica Starling – kingfish aquaculture
12/5/11	Perth	Grant Barker – Northern Wildcatch Seafoods
12/5/11	Perth	Simon Little – Westmore Seafoods

Initially, up to four themed workshops were proposed for the second round of national meetings. The first of these was related to the influence of seismic activity on the fishing industry. As interest in this workshop developed, it became apparent that it was going to be a far larger and more broadly attended workshop than those in the previous year. As such, after discussions with FRDC, it was agreed that the resources for the second round of themed workshops should be focussed on the seismic workshop. The resources used to facilitate the seismic workshop and subsequent projects resulted in no other themed workshops being undertaken.

The seismic workshop was a success and attended by almost 30 participants, including people from Commonwealth and State governments, fishing industry members from around Australia, the oil and gas industry, and researchers. This process led to the development of two key project themes:

- 1) Improved processes and policies to minimise impacts of seismic surveys on fishing operations and businesses; and
- 2) To build on an existing UTAS project to incorporate a desktop study to identify if it was possible to determine impacts of seismic activity on fishing fleet activities.

As with the 1st Round workshops, a comprehensive workshop summary was developed (see Attachment 12) and a Steering Committee was established to drive the two seismic focussed projects.

From the above process, four projects were developed into the proposals shown in Table 5.

Table 5: Projects developed through Empowering II - 2nd Round.

Project	Status
Empowering Industry RD&E: Improved processes and policy to minimise impacts of seismic surveys on fishing operations and businesses	Project proposal (FRDC TRF) not approved by FRDC.
Optimising processes and policy to minimise business and operational impacts of seismic surveys on the fishing industry and oil and gas industry	Project proposal (FRDC Project 2013/209) approved by FRDC. Ongoing
Assessing the impact of marine seismic surveys on southeast Australian scallop and lobster fisheries	Project proposal (FRDC Project 2012/008) approved by FRDC. Ongoing
Empowering Industry RD&E: Energy audit of prawn trawler with auxiliary sail power	Project proposal (FRDC TRF 2011/229) approved by FRDC. Completed ³

Around the same time, the Empowering II Workshop methodology was used as a basis for the FRDC Project 2010/401 'Shaping advice for Indigenous fishing and aquaculture RD&E within the national strategy' forum held in Cairns 30th - 31st March 2011, and proved a

³ See final report at - http://frdc.com.au/research/Documents/Final_reports/2011-229-DLD.pdf

useful tool for gathering key RD&E needs (*Calogeras et al, 2011*). Using this methodology, key questions are asked from each individual:

- What could be done to increase the 'value' of your fishing experience/operation?
- How would this improve your experience/operation?
- What type of help do you think you need to make this happen?

ACWA also requested that the Empowering II methodology be utilised in a number of RD&E workshops they planned for the aquaculture industry.

Revised Scope of Empowering II

Evolution of the RD&E planning and funding process at the national level during the life of Empowering II, along with a general improvement of the FRAB process, saw a more coordinated and strategic approach to developing RD&E requirements for the fishing and seafood industry at a high level. There had also been a lot of focus and investment in developing strategic RD&E plans, and national processes to take these plans and instigate appropriate research.

This resulted in a diminishing (if any) need for the Empowering II project to work in this space. This process, however, also increased the likelihood that once again there would be few resources devoted to meeting grass-roots industry needs.

Given the above, FRDC agreed with the PI and CI to put the project on hold while they worked with FRDC to identify future scope and relevance of Empowering II. During 2013, this involved numerous discussions and meetings with FRDC staff, and culminated with an options paper to FRDC (Attachment 13).

A further option explored by FRDC was to use the Empowering Framework as part of the delivery of the FRDC 'Extension and Adoption' Strategy.

In January 2013 the investigators met with FRDC staff and Jill Briggs (PI of FRDC Project 2011/400 'Improving two-way membership communication in peak industry bodies of the fishing and seafood industry') to identify a forward direction for the Empowering Industry project. Various options were discussed at this meeting, but the agreed underlying objective was that the project should still endeavour to meet the RD&E needs of the fishing and seafood industry. During these discussions it was noted that, while some FRABs were receiving well-coordinated and representative advice from industry associations about RD&E priorities, this was not necessarily universal. In the states where there were difficulties, the reasons for the problems varied, but lack of cohesive or fully representative industry advice was a significant issue, as was relatively new membership or functioning of the FRABs.

It was acknowledged that over previous years of the Empowering II project, the website that had been developed was well placed to accept grass roots industry RD&E ideas as a basis for developing project proposals. It was envisaged that, through use of this website, and the focused attention of the Empowering II project, a useful service may be provided to State FRABs and industry associations that were having difficulty compiling and prioritising RD&E ideas. Ultimately, it was decided that the Empowering II project would

vary the remaining milestones to meet this goal, using Queensland and Victoria as case studies.

In October 2013 the FRAB chairs of Victoria and Queensland were advised that their FRABs were to act as pilots to test approaches for extracting, consolidating and prioritising grass roots industry needs through industry associations, and then looking to match these needs with RD&E providers to develop targeted applications.

Project Variation: FRAB Case Studies

Key industry groups from Victoria (Figure 3 and Table 6) and Queensland (Figure 4 and Table 7) were mapped to relevant associations. These maps and associated contact details formed the basis for the broader industry consultation. It should be noted that due to the fractured and fractious state of the commercial sectors representative structure in Qld, it became a very complex matter to adequately liaise with all 'major' groups.

Contact was made with the key associations identified in the industry map (wild harvest, recreational and aquaculture), seeking their input to the data collection process. A range of options for completing the process were offered, including electronic completion of the 'one pager', hand written responses, face to face meetings (where practicable and cost effective) and via teleconference. All data collection methods were used, based on the sectors' / individual's capacity, time, literacy and numeracy.

There was general support and interest in, and for, the process in both states, especially from the wide range of bodies that aren't identified as the peak Qld bodies. Handwritten responses and teleconference were the most frequent data collection methods used.

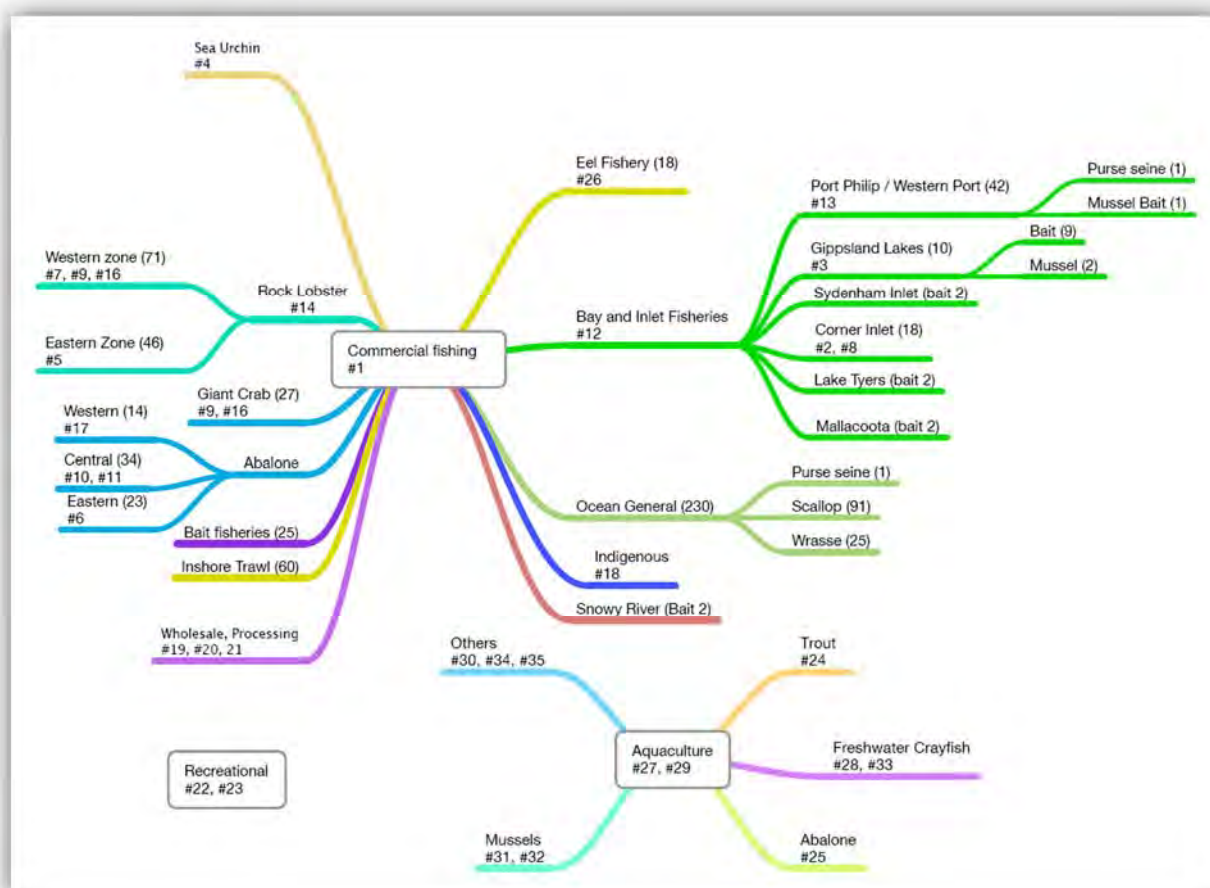


Figure 3. Industry road map for Victoria

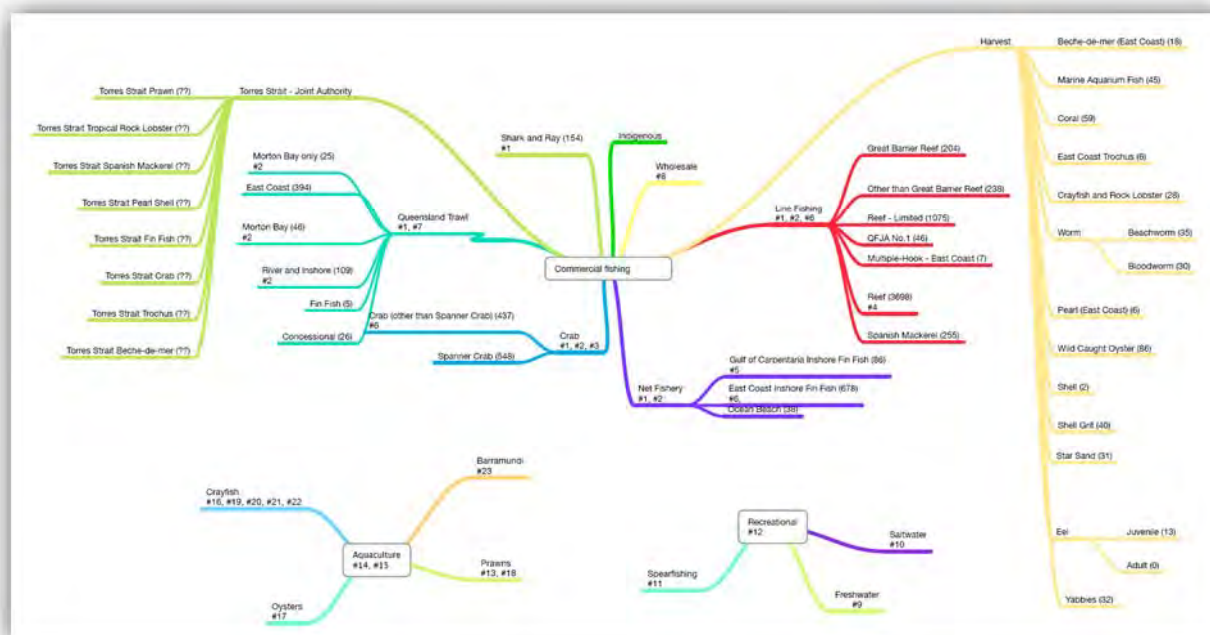


Figure 4. Industry road map for Queensland

Table 6. Empowering Industry contacts with Victorian industry associations¹.

<ul style="list-style-type: none"> • Seafood Industry Victoria (#1) • Corner Inlet Fisheries Habitat Association (#2) • East Gippsland Estuarine Fishermen's Association (#3) • Eastern Victorian Sea Urchin Divers Association (#4) • Eastern Victorian Rock Lobster Industry Association (#5) • Eastern Zone Abalone Industry Association (#6) • Port Campbell Professional Fishermen's Association (#7) • Port Franklin Fishermen's Association (#8) • Portland Professional Fishermen's Association (#9) • Victorian Abalone Council (#10) • Victorian Abalone Divers Association (#11) • Victorian Bays and Inlets Fisheries Association (#12) • Victorian Fishery Association Resource Management (#13) • Victorian Rock Lobster Association (#14) • Warrnambool Professional Fishermen's Assoc (#16) • Western Abalone Divers Association (#17)) 	<ul style="list-style-type: none"> • Victorian Indigenous Seafood Corporation (#18) • Lakes Entrance Fishermen's Co-op Society Ltd (#19) • Victorian Abalone Processors Association (#20) • Victorian Fish & Food Marketing Association (#21) • VRFish (#22) • Futurefish Foundation (#23) • Victorian Trout Farmers Association (#24) • Victorian Abalone Growers Association (#25) • Victorian Eel Fishermen's Association (#26) • Victorian Marine Farmers Inc. (#27) • Australian Freshwater Crayfish Growers Association (Vic.) (#28) • The Victorian Aquaculture Council (#29) • Victorian Warmwater Aquaculture Association (#30) • Mussel Producer's Association of Victoria (#31) • Victorian Mussel Grower's Association (#32) • Victorian Native Fish Farmers Inc (#34) • Victorian Ornamental Growers (#35) • Victorian Shellfish Hatchery (#36)
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¹ Unsuccessful contacts (those that either could not be contacted or did not provide project ideas) are highlighted.

Table 7. Empowering Industry contacts with Queensland industry associations¹.

<ul style="list-style-type: none"> • Aquaculture Association of Queensland (#15) • Australian Barramundi Farmers Association (#23) • Australian Prawn Farmers Association (#13) • Australian Underwater Federation Queensland (#11) • Crayfish Farmers Association of QLD (#16) • East Coast Crabfishers Industry Network (#3) • Fishermen's Portal (#24) • Freshwater Fishing and Stocking Association of Queensland Incorporated (#9) • Gulf of Carpentaria Commercial Fishermen Association Inc (#5) • Hinchinbrook Seafood Industry Incorporation (#6) 	<ul style="list-style-type: none"> • Independent Trawlers Association (not operating) (#7) • Moreton Bay Seafood Industry Association (#2) • Queensland Aquaculture Industries Federation Inc (#14) • Queensland Game Fishing Association (#10) • Queensland Oyster Growers Association (#17) • Queensland Seafood Industry Association (#1) • Queensland Seafood Marketers Association (#8) • Reef Line Council (not operating) (#4) • Sunfish Queensland (#12) • SUNTAG (#25)
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¹ Unsuccessful contacts (those that either could not be contacted or did not provide project ideas) are highlighted.

Victorian FRAB

The industry mapping exercise identified 34 key Victorian groups (Table 6) and the associated contact details formed the basis for the broader industry consultation.

Phone interviews were used to obtain RD&E 'ideas' from as many of these groups as possible. Although there were some associations that were no longer operating and some from which there was no response, overall, 22 key industry people from the different associations were interviewed and 35 RD&E ideas were put forward by 19 of those people contacted.

These ideas were categorised into primary (and sometimes secondary) FRDC themes (Table 8), and these were entered into the Empowering II website.

Fifteen different project ideas provided by Victorian fishery associations fell (either primary or secondary) under FRDC Theme 4 *Ecologically sustainable development* (Table 8). *Governance and regulatory systems* (Theme 5), *Production, growth and profitability* (Theme 7) and *Resource access and allocation* (Theme 6) were the next most popular themes with 9, 7 and 7 projects respectively. A full list of Vic project concept against FRDC Themes is shown at Attachment 14.

The most common project idea (four different projects) involved addressing conflict between recreational and commercial fishers in Port Phillip Bay, in a variety of ways, including risk assessments of fishing, understanding and addressing the issues, and educating the public of the facts about commercial fishing in the Bay (Table 9). Other project ideas that were raised multiple times were improving engagement between Port Phillip Bay commercial fishery and other stakeholders to maintain access (through sea installations, rezoning etc), management strategy evaluation of maximum pot numbers in the Rock Lobster Fishery, investigation into the decline in seagrass habitat in Corner Inlet, improving fine scale management of the abalone fishery and recovery of depleted abalone stocks.

The information below was provided to SIV and Vic FRAB prior to the 2014 RD&E priority setting workshop, along with a one page summary of each project idea (see Attachment 15 for an example of a summary). Empowering Industry made a presentation of this information to the Vic FRAB at the workshop on 12 March 2014.

Table 8: Categorisation of Victorian industry project ideas into FRDC themes.

FRDC Theme (No.)	Number of projects
Ecologically sustainable development (Theme 4)	15
Governance and regulatory systems (Theme 5)	9
Production, growth and profitability (Theme 7)	7
Resource access and allocation (Theme 6)	7
Value from aquatic resources (Theme 9)	6
Habitat and ecosystem protection (Theme 2)	5
Resilient and supportive communities (Theme 10)	5
Extension and adoption (Theme 14)	2
Leadership development (Theme 11)	2
Consumers, products and markets (Theme 8)	1
Innovation skills (Theme 13)	1

Table 9: Victorian industry project ideas that had multiple responses

PPB commercial fishery resource conflict (4 projects)	<ul style="list-style-type: none"> • Public perception <ul style="list-style-type: none"> – Resource access and allocation (Theme 6) – Resilient and supportive communities (Theme 10) – Extension and adoption (Theme 14) • Impacts of fishing <ul style="list-style-type: none"> – Ecologically sustainable development (Theme 4) – Resource access and allocation (Theme 6)
PPB commercial fishery stakeholder engagement (2 projects)	<ul style="list-style-type: none"> • Loss of access (e.g. through sea installations, management arrangements or rezoning) <ul style="list-style-type: none"> – Resource access and allocation (Theme 6) – Resilient and supportive communities (Theme 10)
MSE of maximum pot numbers in RL fishery (2 projects)	<ul style="list-style-type: none"> • Low catch rates and long working hours <ul style="list-style-type: none"> – Governance and regulatory systems (Theme 5) – Ecologically sustainable development (Theme 4)
Decline in seagrass in Corner Inlet and Port Albert (2 projects)	<ul style="list-style-type: none"> • Noticeable decline in ecologically important seagrass habitat <ul style="list-style-type: none"> – Habitat and ecosystem protection (Theme 2)
Fine-scale management of abalone fisheries (2 projects)	<ul style="list-style-type: none"> • Lack of spatial resolution of C&E data <ul style="list-style-type: none"> – Governance and regulatory systems (Theme 5) – Ecologically sustainable development (Theme 4) – Innovation skills (Theme 13)
Recovery of abalone stocks (2 projects)	<ul style="list-style-type: none"> • Stocks heavily reduced in areas from AVG/urchins <ul style="list-style-type: none"> – Value from aquatic resources (Theme 9) – Ecologically sustainable development (Theme 4)

Queensland FRAB

The industry mapping exercise identified 20 key Queensland groups and the associated contact details formed the basis for the broader industry consultation (Table 7).

Phone interviews, email requests and a small number of face-to-face interviews were used to obtain RD&E 'ideas' from as many of these groups as possible. Although there was some associations that were no longer operating and some from which there was no response, overall, 36 key industry people from the different associations provided approximately 50 RD&E ideas.

These ideas were categorised into primary (and sometimes secondary) FRDC themes (Table 10) and entered into the Empowering Industry website.

The two most popular FRDC themes attributed to Queensland project ideas were *Governance and regulatory systems* (Theme 5), *Production, growth and profitability* (Theme 7) with 24 and 20 projects respectively. There were nine project ideas addressing closures, access and/or zoning, and in particular, assessing the appropriateness of closures and identifying opportunities for improved access (Table 10). Eight project ideas were received that involved representation and dialogue — these were mostly projects to improve communication between stakeholders, but also capacity building. There were

five project ideas for both reducing regulatory burden, and valuing and understanding sectors. A full list of Qld project concepts against FRDC Themes is shown at Attachment 16.

The most commonly described project idea (nine projects) involved addressing closures, access and zoning issues arising from marine park and fishery closures. Other project ideas that were raised multiple times were improving representation and dialogue (8 projects), reducing regulatory burden (5 projects), improved valuing and understanding of sectors (5 projects) and improving image and media (4 projects) (Table 11).

The information below was sent to QFRAB prior to the 2014 RD&E priorities workshop, along with a one page summary of each project idea. Empowering Industry made a presentation of this information to the QFRAB at the workshop on 31 March 2014.

Table 10 Categorisation of Queensland industry project ideas into FRDC themes.

FRDC Theme (No.)	Number of projects
Governance and regulatory systems (Theme 5)	24
Production, growth and profitability (Theme 7)	20
Leadership development (Theme 11)	8
Consumers, products and markets (Theme 8)	6
Ecologically sustainable development (Theme 4)	6
Value from aquatic resources (Theme 9)	6
Resilient and supportive communities (Theme 10)	5
Resource access and allocation (Theme 6)	3
Biosecurity and aquatic animal health (Theme 1)	2
Habitat and ecosystem protection (Theme 2)	1
Innovation skills (Theme 13)	1

Table 11: Queensland industry project ideas that had multiple responses

Closure, Access, Zoning (9 projects)	<ul style="list-style-type: none"> Assess appropriateness of closures and identify opportunities for improved access <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Resilient and supportive communities (Theme 10) Production, growth and profitability (Theme 7) Value from aquatic resources (Theme 9) Ecologically sustainable development (Theme 4)
Representation, dialogue (8 projects)	<ul style="list-style-type: none"> Improving representation and communication between stakeholders <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Leadership development (Theme 11) Resource access and allocation (Theme 6) Leadership and decision making <ul style="list-style-type: none"> Leadership development (Theme 11)
Reducing regulatory burdens (5 projects)	<ul style="list-style-type: none"> Minor use permits, administration costs and discharges <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Biosecurity and aquatic animal health (Theme 1)

	<ul style="list-style-type: none">– Production, growth and profitability (Theme 7)
Valuing and understanding sectors (5 projects)	<ul style="list-style-type: none">• Socio economic value and licensing for recreational sector<ul style="list-style-type: none">– Value from aquatic resources (Theme 9)– Production, growth and profitability (Theme 7)– Resilient and supportive communities (Theme 10)
Image and media (4 projects)	<ul style="list-style-type: none">• Improve public perception of commercial fishing and spearfishing<ul style="list-style-type: none">– Resilient and supportive communities (Theme 10)– Leadership development (Theme 11)– Governance and regulatory systems (Theme 5)

Queensland has used the data from the 2014 Empowering Survey as a basis for to review its 2015 priorities.

The results of this process were presented to the FRDC FRAB Priority Setting workshop held in Canberra April 2014.

7. CONCLUSION

This project built on the successful trial project, FRDC 2007/304 'Empowering stakeholders to initiate and advance R&D projects in the seafood industry' by engaging with a wider range of stakeholders to identify national and regional research priorities, workshopping some of those themes with the highest priority, and assisting to develop those priorities into funded research projects. This was undertaken to address the need for research to be targeted towards the requirements of industry, rather than at the areas of agency or researcher's area of interest. The underlying objective of the Empowering methodology has always been to develop an industry-driven process to compile RD&E priorities from the broader fishing and seafood industry, and facilitate the implementation of research projects that meet their needs.

The first stage of Empowering II focussed on reengaging with Industry by advising a wide range of stakeholders (from Indigenous, commercial and recreation sectors) of the project's aims, methodologies and proposed outcomes. This was generally undertaken through electronic communication (i.e. phone, email, web information) and industry magazines and meetings (see Attachment 17 for examples of this media and extension material). Each FRAB was also contacted to request their input to the process, especially in the form of attendance at workshops, stakeholder contacts and through feedback from the workshops.

To identify national and regional industry RD&E priorities, meetings were held with stakeholders, including peak industry associations and FRABs, to discover key issues facing each sector. This process worked well and 50 meetings with stakeholders were undertaken all around Australia, with around 200 industry concepts identified.

Some noticeable synergies and linkages were identified across sectors and jurisdictions, and a number of sector, regional or individual concepts were also identified. These issues were aggregated and assessed on a national and regional scale, to group similar concepts into clusters.

This process led to a series of theme-based workshops and the development of a series of potential Industry focussed project outlines that could be undertaken to advance the RD&E needs of Industry in line with the identified national and regional industry focussed RD&E needs. Eleven projects were developed through this process, over two phases, which resulted in five funded projects through the FRDC process (see Table 3 and Table 5). No funding was sourced outside of the FRDC although some external funding sources were sought.

However, with evolution of the RD&E planning and funding process at a national level (e.g. National Priorities Forum, National Research Hubs, Research Providers Network, Indigenous Reference Group, RecFish Research, allocated national RD&E funding through IPA and nationally coordinated Call for Research Process), the need for this aspect of the Empowering II project reduced during the first two years of the project.

As a result of the above, in conjunction with FRDC, there were significant changes made to the Empowering II project methodology during 2013, to seek to address the overarching issue of engagement with grass roots industry in a different way. These changes focused on assisting FRABs to ensure they were receiving well-coordinated and representative advice from industry associations and individuals about RD&E priorities. In the states where there were some identified difficulties in this respect, the Empowering II project was used to garner grass roots industry RD&E ideas as a basis for developing research priorities and project proposals for the respective FRAB's consideration.

During mid-2013 the Project investigators presented this changed role to the chairs of the Victorian and Queensland FRABs, who agreed they would use their jurisdictions as case studies to test this approach for extracting, consolidating and prioritising industry needs.

To see if FRAB research priorities aligned with those of industry representatives, key industry groups from Victoria and Queensland were mapped to relevant associations, and those contacts were interviewed to obtain information about the biggest issues in their sector, and how those issues could be addressed through research. This information was summarised and presented to the relevant FRABs. Collation of research priorities from Victorian and Queensland fisheries associations found many project ideas with common themes in each state. During early 2014, presentations of this information were made to the FRABs in both states, and at the annual FRDC FRAB priority setting workshop.

It was estimated that direct data collection and entering onto the Empowering site cost around \$10,000 for the Victorian component and \$14,000 for the Qld sectors. This cost could be reduced over time if this process became a formal part of the jurisdictional FRAB process, as this time around some time was committed to identifying who is still operating, as well as explaining and developing trust with industry members for the process.

The trial FRAB case studies showed that the current Empowering process and website is a valuable and cost effective means to more closely link industry needs with FRAB priorities, and also it provides a direct way to engage with a diverse range of stakeholder groups in the commercial and recreational sectors. Linkages with Indigenous groups were however not particularly successful, and seeking to work more closely with the IRG may be a way to better engage with this sector.

The recent focus and investment in developing high level strategic RD&E plans and national processes may also increase the likelihood that once again, there will be few resources devoted to meeting grass-roots industry needs in the RD&E space.

The Empowering website has also been updated to improve functionality and to allow it to present priority information to relevant FRABS.

8. RECOMMENDATIONS AND POSSIBLE FURTHER DEVELOPMENT

The Empowering II process of using an independent means to engage with key stakeholder groups to gather industry needs has provided a sound means to ensure that there is breadth of advice coming into the FRAB process, and that FRAB members have a broader understanding of Industry RD&E needs and wants relating to improving the 'value' of their particular circumstances (which are often at a very operational level v the often very high level strategic priorities approved at many FRABs).

There would be benefit from extending the use of this Empowering II process to a number of other FRABs if they felt that this would enhance their role and linkages to Industry and stakeholders, and to quantitatively assess national and regionally significant projects in a similar manner.

At least two FRABs have independently expressed an interest in adopting the Empowering process as part of their ongoing RD&E priority setting process, and Queensland has used the data from the 2014 Empowering Survey as a basis for reviewing its 2015 priorities.

There may be value in FRDC suggesting that the process is adopted nationally to ensure consistent cover and methodology across FRABs.

9. BIBLIOGRAPHY AND REFERENCES

- Calogeras, C., Carne, B., Lui, S. and Schnierer, S. (2011). *Shaping Advice for Indigenous Fishing and Aquaculture RD&E within the National Strategy Including Outcomes from the National Forum – 30-31 March 2011, Cairns. FRDC Project 2010/401. C-AID Consultants. 62 p.*
- Knuckey, I., Calogeras, C. and McShane, P. (2008). *Empowering stakeholders to initiate and advance R&D projects in the seafood industry. FRDC Project 2007/304. Fishwell Consulting. 56 p.*

10. APPENDIX

APPENDIX I: Intellectual Property

No intellectual property was developed under this project and any knowledge gained through this project is available to the broader Australian fishing and seafood industry.

APPENDIX II: Staff

The following staff were involved with this project;

Dr Ian Knuckey	Fishwell Consulting	Principal Investigator
Mr Chris Calogeras	C-AID Consultants	Co-Investigator

11. ATTACHMENTS

Attachment I Empowering Industry I - Project Summary

FRDC Project No. 2007/304: Empowering stakeholders to initiate and advance R&D projects in the seafood industry

Anecdotal reports from Industry indicated that their lack of capacity and/or resources to develop and submit R&D projects was hindering their involvement in, and commitment to R&D. As a result, industry initiated R&D projects tended to be poorly represented, with the bulk developed by Government agencies and universities, which may not have been aligned to or focused on Industry priorities. The 'Empowering Industry' project was intended as a one year trial to investigate this issue.

The project sought to provide a process that allowed industry R&D ideas to be captured and developed into project proposals that could become part of the standard R&D funding process. Industry members were encouraged to be investigators on the developed projects and to become proactive in identifying and linking with an expanded range of appropriate R&D research providers. The project also sought to establish a broader network of funders.

More than 50 stakeholder groups were contacted and briefed about the 'Empowering Industry' project and its potential benefits. This led to approximately 40 presentations being given across Australia to an audience of more than 200 industry people.

As a result of this contact, 35 potential R&D projects were developed with input from the 'Empowering Industry' project. This outcome far exceeded the 'Empowering Industry' project's objective of identifying five potential projects. In all instances (except one) of projects an Industry person was the investigator or equivalent.

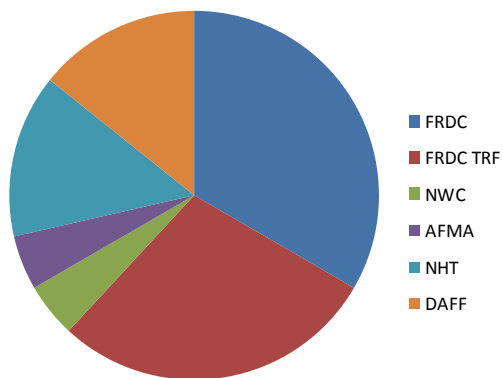
Identifying alternatives to FRDC funding, as well as ensuring that FRDC funded projects aligned with the funding criteria, were critical components of this project. Six national funding agencies/sources were identified for use during the project.

Of the 35 potential R&D projects, 20 full proposals were developed and submitted to various funding agencies. Projects focussed on environmental performance (32%), industry profitability and efficiency (26%), people and Industry development (18%) and product development (15%). Sixteen proposals were successful in obtaining funding. The 'Empowering Industry' project generated R&D funding of approximately \$1,300,000, giving a return of almost \$9.00 in funding for every \$1.00 of FRDC funding expended on the 'Empowering Industry' project.

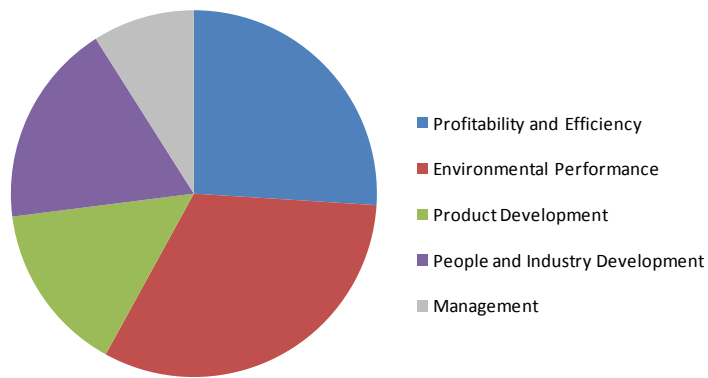
During the 2008/09 funding cycle 10% of all approved FRDC full projects and 40% of the approved Industry initiated projects were developed with support from the 'Empowering Industry' project. The 'Empowering Industry' project assisted in the development of 28% of all approved Tactical Research Fund (TRF) projects and 62% of approved Industry projects.

From the perspective of involving Industry in R&D, the project was an overwhelming success and highlighted their real need for assistance. The 'Empowering Industry' project identified that there were numerous opportunities for more extensive Industry involvement in R&D, but in many instances their input needed to be actively sought and assistance provided to work through the R&D process.

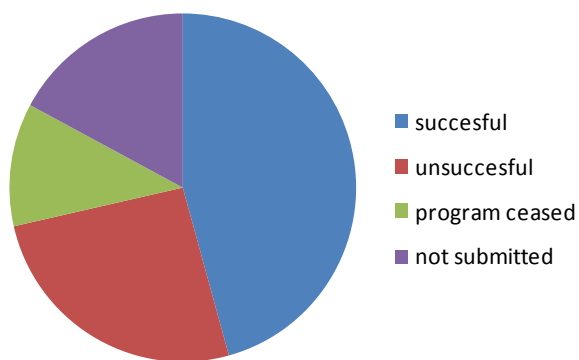
Based on the success of this trial, a number of Industry representatives have called for the development of an ongoing mechanism to deliver a similar service to the broader seafood and fishing industry, ensuring that: it is cost-effective, inclusive and transparent, operates at a national or regional scale, and provides opportunities for the existing funding process to be improved.



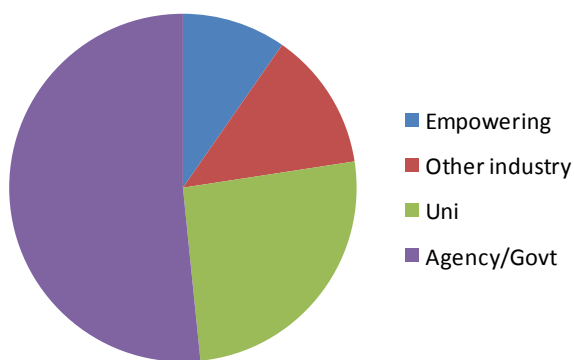
Where “Empowering Industry” projects sought funding from



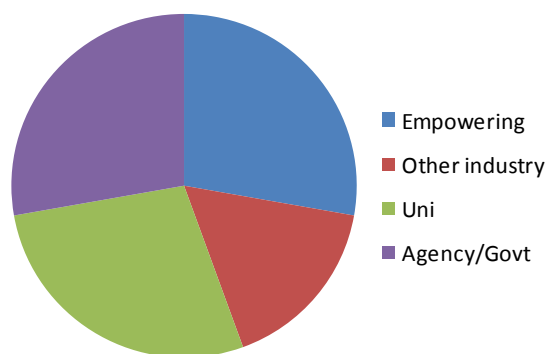
“Empowering Industry” project focus area



Status of projects assisted by the Empowering Industry Project



Percentage of FRDC full projects supported by sector



Percentage of TRF projects supported by sector

PROJECTS DEVELOPED WITH ASSISTANCE OF THE 'EMPOWERING INDUSTRY VERSION 1' PROJECT 2007/8

Projects Supported and Funded

- A collaborative recruitment forecasting programme for the NT Mud Crab Fishery (built on Community Surveys of Mud Crab Stocks in the Northern Territory project)
- Community Surveys of Mud Crab Stocks in the Northern Territory
- Ecologically sustainable spear fishing through policy, risk assessment, monitoring and education (Australian Underwater Federation – AUF)
- Effectiveness of larger mesh size in reducing the capture of juvenile target species in select NSW ocean beach seine operations
- Empowering Industry R&D: Cost Benefit Analysis of management options for the Northern Prawn Fishery
- Empowering Industry R&D: Developing quality standards for Endeavour prawns as part of the pathway towards a clean and green promotional strategy for the Industry
- Empowering Industry R&D: Improving profitability to Industry through the identification and management of 'tough' fish syndrome in tropical Saddletail Snapper
- Empowering Industry R&D: Trials of gear modifications to reduce bycatch in freshwater fyke nets
- Empowering Industry R&D: Trials of T90 mesh configuration for bycatch reduction and more efficient fishing in the GABTF
- Empowering Industry R&D: Uniform flesh quality for premium market positioning: Australian Blue Crabs
- Empowering Industry R&D: Unique industry opportunity to trial pipi stock enhancement to improve sustainability and harvest rates on Yagon Beach, NSW inland fisheries
- Future seafood leaders: taking stock
- Moving To A Common Vision And Understanding For Equitable Access For Indigenous, Recreational And Commercial Fishers:- NT Fishing And Seafood Industry Delegation To NZ
- Northern Territory Seafood Council – Industry Stocktake
- Redefining deepwater closures in the SESSF to reduce the impact on the commercial deepwater fishery and maintain adequate protection of orange roughy
- South east trawl – investigation of sea exclusions in wet boat sector
- Trawl industry bycatch forum

Projects developed but not funded:

- Empowering Industry R & D: Trials of quad gear to improve fishing efficiency in the NPF
- Empowering Industry R&D: Feasibility of using electronic logbook software for the effective onboard collection and transfer of catch / effort and environmental data in NSW
- Empowering Industry R&D: Benchmarking and reducing freshwater consumption in the seafood processing sector
- Empowering Industry R&D: Capacity building in the commercial fishing industry through culturally appropriate indigenous training
- Empowering Industry R&D: Development of a screening level risk assessment methodology to assess the risk posed by contaminants present in catchment runoff to inshore and inland fisheries
- Empowering Industry R&D: Establishing shelf life, quality and consistency in 'grab and go' packaged meals of wild caught Australian seafood
- Empowering Industry R&D: Increasing harvest and post harvest survival through customised processing equipment in the Port Lincoln mussel industry
- Empowering Industry R&D: Reduction of Seabird interactions and mortalities in the SESSF (trawl) due to warp strikes

Projects developed but funding source ceased or changed:

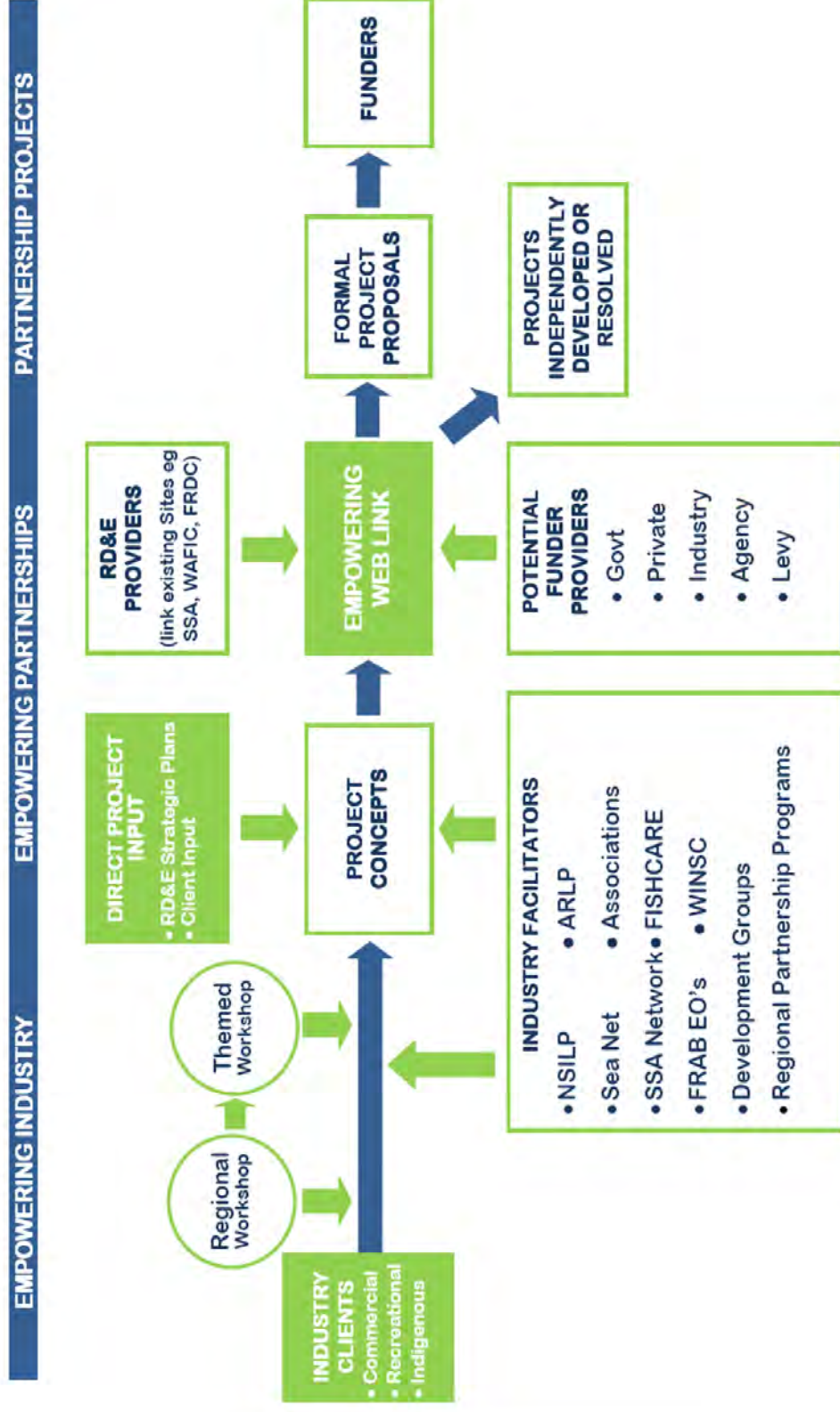
- Industry Action Program - NPF Industry Pty Ltd – Action Grant for Marketing
- Queensland Seafood Industry Association – Industry Action Program
- Tasmanian Scallop Fisherman's Association – Industry Stocktakes
- Tasmanian Scallop Fisherman's Association - pest eradication and proactive waste management

Projects considered but not further developed:

- Empowering industry R&D: Commercial potential of freshwater & marine plants as food
- Empowering Industry R&D: Techniques for conditioning eels in intensive aquaculture
- Empowering Industry R&D: Calendar of the year
- Empowering Industry R&D: Identification of a farmed based method to measure stress levels in Barramundi
- Empowering Industry R&D: Improving catch quality to achieve a premium in the SA sardine industry
- Empowering Industry R&D: Self Management of the Tasmanian Scallop Fishery

Attachment 2 Explanation of the Empowering II Process

The Empowering Industry Project Development and Linking Process



Attachment 3 Industry Data Collection Sheet - Phase 1

Industry Ideas Collection Sheet (recreational)

EMPOWERING INDUSTRY - RECREATIONAL IDEAS

Date:

Your name and/or business:

Contact number: Email:

What type or field of recreational fishing are you into:

.....

What could be done to increase the 'value'* of your fishing experience/operation:

(* value includes satisfaction, security, efficiency, profitability or performance)

.....

.....

.....

How would this improve your experience/operation:

.....

.....

.....

What type of help do you think you need to make this happen:

.....

.....

.....

Look at the attached lists and choose up to five words that cover this idea or add your own.

.....

PLEASE FAX OR EMAIL THIS SHEET TO:

Fax: 03 5258 4399. Email: fishwell@datafast.net.au or calogeras@iinet.net.au

RECREATIONAL FISHING – KEYWORDS ACROSS SECTORS

<ul style="list-style-type: none"> • Adding to the experience • Animal welfare • Barriers to fishing • Best practice • Biosecurity • Bycatch • Capacity building • Carbon trading • Chemical use • Climate change and variability • Communication • Community engagement • Cost effective compliance • Cost of fishing • Cost of management - levels of risk • Data collection • Economic measures • Efficiency • Empowerment • Energy use • Enhancement • Enjoyment • Environmental • Equipment • Extension of RD&E • Fishery/product standards • Fish handling 	<ul style="list-style-type: none"> • Fishery/product standards • Fish handling • Fish Fishing gear or tackle • Fishing practices • Food preparation • Food safety • Food security • Harbour/launching facilities • Harvest species • Harvest strategies • Health benefits • Illegal fishing • Improved cost effective sector data • Industry adoption of RD&E • Industry engagement • Industry input to RD&E • Industry structural issues • Information transfer/flow • Innovation • Leadership • Lifestyle • Market access • MPA risk management and evaluation • New fishers • New opportunities • OH & S • People 	<ul style="list-style-type: none"> • Performance • Policy issues • Predicted v actual management outcomes • Public perception • Relationship building • Rights • Resource allocation and reallocation • Safety • Satisfaction • Sector placement • Security • Sector research capability • Shared management • Social measures • Staff • Stock status • Succession • Tagging • Training • Technology transfer • Vessel • Waste • Water management • Well being • workforce • Working in data poor fisheries
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Attachment 4 Industry Invites Flyer

What would you like done to increase the value of your fishing experience or operation?

Grass roots people from the fishing and seafood industry (recreational, commercial and indigenous) need Research Development and Extension (RD&E) to specifically address their business requirements. A trial project undertaken during 2007/08, with the support of the Fisheries Research and Development Corporation (FRDC), saw over 35 industry lead project concepts developed, of which 16 were successful, receiving funding of over \$1.3M.

To help improve grass roots RD&E, and to build on the success of the previous trial in a strategic and transparent way, the FRDC has approved a new three year project to gather RD&E ideas from industry people, on a national and regional scale. These ideas will be used to develop projects that address industry needs and help shape future RD&E in the fishing and seafood industry. This process will complement, but not replace, the existing FRDC and other funding processes.

The focus of the RD&E will be on improving 'value' to industry, in its broadest sense, taking into account the varying individuals and sectoral needs, including efficiency, profitability and performance, as well as other characteristics such as social aspects, enjoyment, wellbeing, amenity and cultural needs.

The first stage of the project involves gathering individuals' ideas through a series of regional meetings held around Australia. Industry members are invited to share their thoughts and ideas on how to improve their operations, and those of industry as a whole. These ideas will lead to the development and documentation of national and regional industry-focused RD&E needs. In partnership with industry, projects can then be developed which link these needs to suitable RD&E service providers, utilising a range of potential funding sources.



Workshops have already been held in Darwin and Perth and more are proposed during 2009 for:

Tas	13-14 Oct	Vic	5-6 Nov	Qld	23-25 Nov
NSW	25-27 Nov	SA	7-10 Dec		

These meetings will be hosted in conjunction with your local peak body/association, but if these dates don't suit, please contact us to make alternate arrangements. Further meetings will be held during 2010.

Feel free to pass this on to others who might be interested in turning their ideas into projects that will improve the fishing and seafood industry. Further information can be found at <http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>.

If you would like to be involved on any level, to have your say, or to find out more, please contact Chris Calogeras or Ian Knuckey, see details below.

CONTACT DETAILS

Ian Knuckey
Fishwell Consulting
Phone: 03 5258 4399
Email: fishwell@datafast.net.au

Chris Calogeras
C-AID Consultants
Phone: 0401 692 601
Email: info@c-aid.com.au



Attachment 5 Four Page Flyer

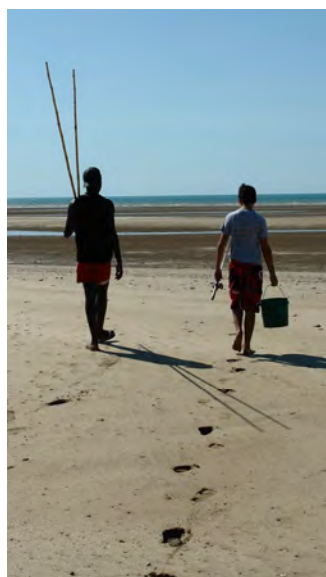
Empowering the Fishing and Seafood Industry Research and Development

The fishing and seafood Industry (commercial, recreational and indigenous) recognise a need for Research and Development (R&D) to specifically address their requirements.

A trial project funded by Fisheries Research and Development Corporation (FRDC 2007/304), *“Empowering stakeholders to initiate and advance R&D projects in the seafood Industry”*, undertaken during 2007 and 2008, highlighted this need. The project sought to determine grass-root R&D needs (at the individual, company or association level) and match them with an expanded base of R&D service providers (i.e. researchers or project managers) and funding sources, to best meet stakeholders’ needs. The project proved an overwhelming success in generating Industry-focused R&D, leading to 35 projects being developed through six potential funding sources. Sixteen of these projects, worth over \$1.3 million, were successfully funded, with all projects having an Industry person as a key participant in the project.



Based on this success, the potential to develop a mechanism to deliver a similar service to the broader seafood and fishing Industry on an ongoing basis became a priority. A more coordinated and transparent approach would be undertaken so as to develop projects in a national or regional context accessing a wider range of research providers. A new three year project was supported by FRDC; *‘Empowering Industry R&D: Developing an Industry driven R&D model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance’* (FRDC 2009/300). The project’s aim is to gather the best Industry R&D ideas, on a national or regional scale, and link them with the most suitable R&D providers or researchers, to develop projects through a range of funding sources. The focus is on improving ‘value’ in its broadest sense, to take into account each sectors’ needs, including social aspects such as enjoyment, wellbeing, amenity and cultural needs, as well as other characteristics, such as efficiency, profitability and performance.



A web-based project registry is being developed to ensure a transparent process for linking Industry people with R&D service providers and funders in cooperative partnerships. The process will allow project proponents to seek out the most suitable service providers on a national basis and access a wider range of funding opportunities than just FRDC. This process may encourage the development of ‘centres-of-excellence’, which could optimise skills and increase return on R&D dollars.

This project will also have an educational and induction component, identifying FRDC’s and the state and territory Fisheries Research Advisory Bodies (FRAB) priorities, roles, responsibilities and processes, with a view to building closer linkages between the FRABs, FRDC and Industry.

A broad network of people will be used to access grass roots R&D ideas and assist in project development. This network will be derived from a range of Industry groups, including graduates from the National Seafood Industry leadership Program (NSILP) and the Australian Rural Leadership

Program (ARLP), SeaNet officers, FishCare volunteers, and members of the Women's Industry Network Seafood Community (WINSC). Not only will this help in project development, but it will broaden and strengthen these networks' participation and enhance their standing and input to the fishing and seafood Industry.

Over the three year project there will be two complete cycles of the process, i.e.:

- identification of Industry R&D priorities to increase 'value' through regional workshops;
- coordination of themes and project development on a national or regional scale; and,
- linking of potential projects to suitable service providers and funding opportunities.

The project has five main steps.

STAGE 1: ENGAGING WITH INDUSTRY

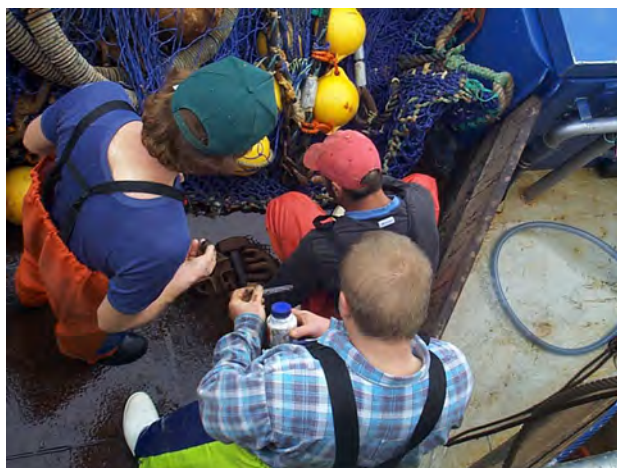
The first stage involves engaging with Industry and advising a wide range of stakeholders of the project aims, methodologies and proposed outcomes. This will generally be undertaken through electronic communication (i.e. phone, email and web-based), Industry magazines and meetings. The large NSILP alumni pool, appropriate fishery orientated people from the ARLP, SeaNet officers, FishCare volunteers, WINSC members and other Industry groups, will be invited to participate, thereby expanding the range of people involved in the process. In addition, all of the FRAB's will be contacted and their input to the process will be sought, especially in the form of attendance at workshops, stakeholders' contacts and through a range of feedback mechanisms.

STAGE 2: IDENTIFICATION OF NATIONAL AND REGIONAL INDUSTRY R&D PRIORITIES

Separate workshops will be held with each Industry sector (i.e. commercial, recreational and indigenous) in each jurisdiction to identify the key issues facing the sectors. Two independent facilitators, working closely with the various peak Industry associations, will arrange participation at the workshops from the FRABs and Industry members from all sectors along the supply chain. A number of NSILP and ARLP graduates, SeaNet officers, FishCare Volunteers and WINSC members will also be invited to be involved.

The facilitated workshops will seek specific ideas from participants as to what they believe would add 'value', in the broadest sense, to their Industry.

Outcomes will be documented at each workshop and signed off as representing the key findings. The participants involved in each group will be identified for follow up action.



STAGE 3: IDENTIFYING AND GROUPING INDUSTRY R&D PRIORITIES

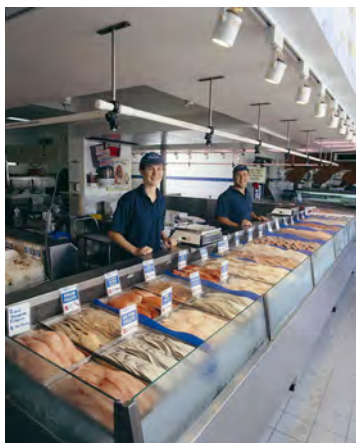
On completion of the regional workshops, the independent facilitators will aggregate and assess the key R&D needs identified from each workshop on a national and regional scale, with a view to grouping like concepts across sectors, fisheries and regions. This will lead to the production of documented national and regional Industry focused R&D needs that add 'value' to Industry as a whole. From this list, a number of themes of national or regional significance will be developed in conjunction with FRDC.

Based around these R&D themes, further workshops will draw together key people to further progress the development of the Industry-driven R&D projects. NSILP, ARLP, SeaNet, FishCare and WINSC representatives will be invited to the national workshops, with a view to them playing a major role in developing the projects.

The two independent facilitators will oversee each theme-based workshop, to develop a series of potential Industry focused project concepts that would meet the R&D needs of Industry.

STAGE 4: TRANSPARENT PROCESS TO LINK POTENTIAL PROJECTS TO SERVICE PROVIDERS

This project will provide a clear and highly transparent process for matching projects with service providers, through a newly developed web-based link.



Brief overviews in the form of project concepts will be developed (one – two pages) for each potential Industry focused project identified during the regional and theme-based workshops. These will be posted on the web site. This web site will allow potential service providers to contact the proponent group or vice-versa. From that point, discussions can be undertaken to further develop the project and to target a possible funding source if the project requires external funding.

The facilitators, along with participating SeaNet officers, FishCare volunteer, WINSC members and NSILP and ARLP graduates, will remain involved during this process, working with proponents and service providers to ensure that project proposals are of a high quality and meet potential funders' requirements.

STAGE 5: MODEL FOR DEVELOPING AND MANAGING INDUSTRY FOCUSED R&D

An important aim of this project is to enable the industry-driven process to continue once the project itself is completed. This requires that we empower Industry individuals, associations or groups, along with SeaNet officers, FishCare groups, NSILP/ARLP graduates and other networks, to take a much greater role assisting in the development of Industry focused R&D. It also means that the web-based system needs to be easy for these people to access and use.

In the long term it is expected that most of the components of the empowering process will become self perpetuated/funded and form an integral part of the broader FRDC / FRAB process to identify and meet Industry-focused R&D priorities.



KEY CONTACTS

Ian Knuckey
Fishwell Consulting
Phone: 03 5258 4399
Email: fishwell@datafast.net

Chris Calogeras
C-AID Consultants
Phone: 0401692601
Email: info@c-aid.com.au



The Empowering Industry Driven R&D Model

Sector Specific Jurisdictional Workshops

Individual workshops undertaken with each sector in each jurisdiction will provide key ideas as to what Industry believes would add 'value' to their Industry.

National and regional Industry focused R&D needs that add 'value' to Industry as a whole identified

Key R&D needs identified at the workshops that will add 'value' to Industry as a whole on a national and regional scale.

Theme Based Workshops

Theme-based workshops to develop a range of specific R&D concepts to address the national and regional Industry focused R&D needs.

Potential project concepts to address national and regional Industry focussed R&D needs

Potential project concepts formally developed to address the national and regional Industry focused R&D needs.

Web based development of Industry focussed R&D projects

A transparent web based project matching process developed to link potential R&D service providers with potential projects and Industry partners.

Project needs are addressed by project partners or formal project proposals submitted to various funding bodies.

Attachment 6 Website Specifications



November 30
2009

Empowering Industry Website

Functional
Specification

Table of Contents

[To update the table of contents, select the message below and press F9]

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1. Pages

1.1. Page Tree

- 1) Home
- 2) Members
- 3) Join
- 4) Members Home
- 5) Project list
- 6) Provider List
- 7) Project Originators
- 8) Links
- 9) Events
- 10) Post Project
- 11) Edit Profile
- 12) Forum

1.2. Home

Administrator must have ability to add news articles to home page and or news page and or members only page.

News articles are to be used to generate a customisable html based e-newsletter than can be sent to a segregated database of subscribers. - i.e. members only, suppliers only etc.

The membership database for this site will be managed and maintained by Seafood Services Australia - <http://www.seafood.net.au/>

Existing or approved users logging in will be verified against the Seafood Services Australia site for access.

Forgot my password will direct to the following page lframed within the site <http://www.seafood.net.au/secure/recover.php>

1.2.1. User Interface

Empowering Industry R&D
Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance

[Home](#) [Contact us](#)

[About](#)

Welcome
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

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Latest News
News Headline
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[More](#)

How to Use This Site
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[More](#)

Joining the R & D Portal
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[Join](#)

Member Login
Username
Password
[Login](#) [Forgot my password](#)

[Subscribe to Newsletter](#)

1.3. Members

The membership database for this site will be managed and maintained by Seafood Services Australia - <http://www.seafood.net.au> (refer to page 16 “Technical Considerations”).

The form <http://www.seafood.net.au/page/?pid=317> will sit inside an Iframe within the site

Existing or approved users logging in will be verified against the Seafood Services Australia site for access.

Profile editing will be done via Iframed page from Seafood Services Australia - <http://www.seafood.net.au/directory/edit.php>

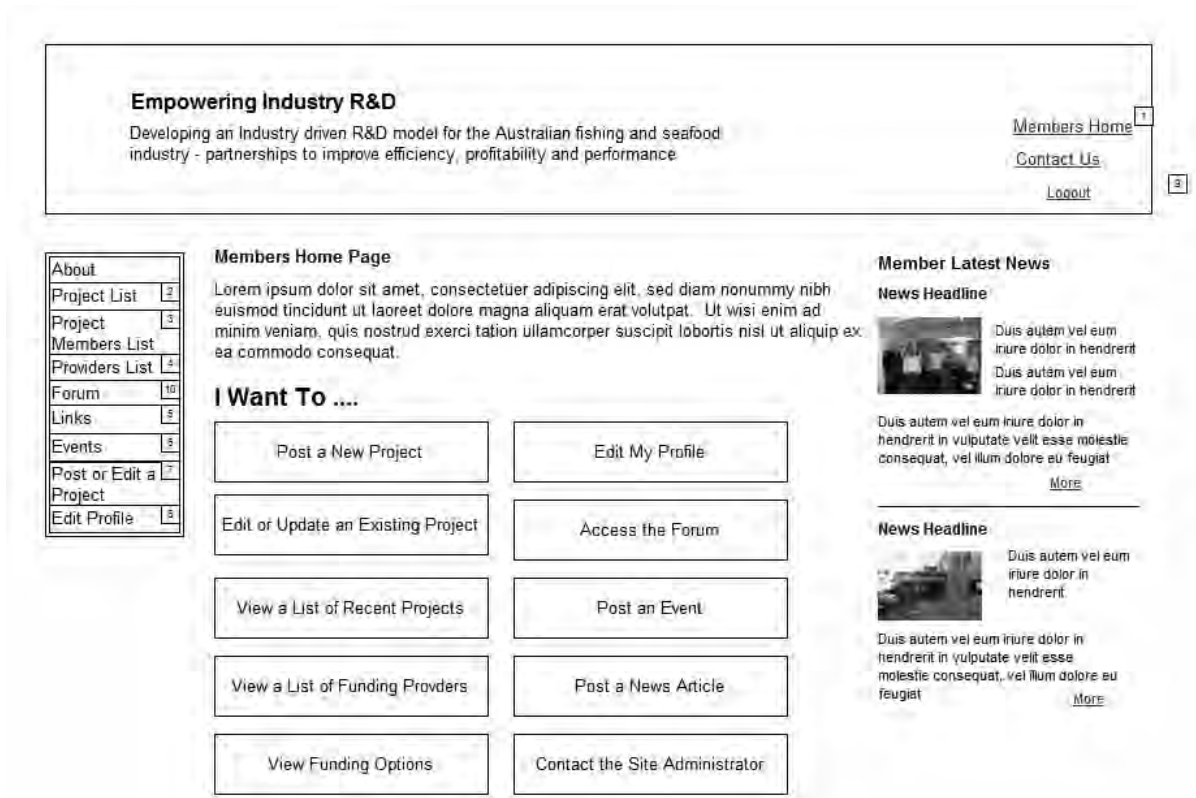
1.3.1. User Interface



1.5. Members Home

Members home only accessible via secure login.

1.5.1. User Interface



1.6. Project list

1.6.1. User Interface

Empowering Industry R&D
Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance

[Members Home](#)
[Contact Us](#)
[Logout](#)

[About](#)
[Project List](#)
[Project](#)
[Members List](#)
[Providers List](#)
[Forum](#)
[Links](#)
[Events](#)
[Post or Edit a Project](#)
[Edit Profile](#)

Project Posts
Please select a category below to view a list of current projects
Select a Category

- Nets
- Processing
- Navigation
- Etc
- All

NP7658**Project Description**Category - NetsStatus - Open

Posted 1/6/09
Posted By - ACME Fisheries [Contact](#)
R & D Provider - ABC RESEARCH [Contact](#)
Project Synopsis
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.
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NP7658**Project Description**Category - NetsStatus - Open

Posted 1/6/09
Posted By - ACME Fisheries [Contact](#)
R & D Provider - ABC RESEARCH [Contact](#)
Project Synopsis
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NP7658**Project Description**Category - NetsStatus - Open

Posted 1/6/09
Posted By - ACME Fisheries [Contact](#)
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Project Synopsis
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1.7. Provider List

1.7.1. User Interface

Empowering Industry R&D
Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance


[Members Home](#)
[Contact Us](#)
[Logout](#)

About
Project List
Project
Members List
Providers List
Forum
Links
Events
Post or Edit a Project
Edit Profile

R & D Provider Members
Please select a category below to view a list of R & D Providers
Select a Category


- Nets
- Processing
- Navigation
- Etc
- All

Company ABC



Profile
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Fields of Expertise
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Address
Contact
Phone
Email
Website
Attachments
[View Projects Undertaken by this Member](#)

Company ABC



Profile
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Fields of Expertise
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Address
Contact
Phone
Email
Website
Attachments
[View Projects Undertaken by this Member](#)

Page 1 of 5 - [Next](#)

1.8. Project Originators

1.8.1. User Interface

Empowering Industry R&D
Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance

[Members Home](#)
[Contact Us](#)
[Logout](#)


About
Project List
Project
Members List
Providers List
Forum
Links
Events
Post or Edit a Project
Edit Profile

Project Originators
Please select a category below to view a list of R & D Originators

Select a Category

- Nets
- Processing
- Navigation
- Etc
- All

Company ABC




Profile
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Fields of Expertise
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Address
Contact
Phone
Email
Website
Attachments
[View Projects Initiated by this Member](#)

Company ABC



Profile
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Address
Contact
Phone
Email
Website
Attachments
[View Projects Initiated by this Member](#)

Page 1 of 5 - [Next](#)

1.9. Links

1.9.1. User Interface

<h2 style="text-align: center;">Empowering Industry R&D</h2> <p>Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance</p>	Members Home ¹ Contact Us Logout
---	---

1.10. Events

Event Posts to be approved by Site Administrator before publishing to site

1.10.1. User Interface

Empowering Industry R&D
Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance

[Members Home](#)¹
[Contact Us](#)
[Logout](#)²

About	
Project List	3
Project	4
Members List	
Providers List	5
Forum	6
Links	7
Events	8
Post or Edit a Project	9
Edit Profile	10

Events

Post a new event

13/6/2009 FRDC R & D Workshop

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10/6/2009 Fishwell Cocktail Party

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13/6/2009 Another event

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10/6/2009 Another event

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1.11. Post Project

Project Posts to be approved by Site Administrator before publishing to site

Fields to have maximum word limits applied

When new projects or updates to projects are posted an email will be sent to all members subscribed to the nominated project categories.

Following project post a recurring email based auto reminder will be sent to the originator at a predefined interval - ie 30 days - to remind originator to update status.

1.11.1. User Interface

Empowering Industry R&D
 Developing an Industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance

[Members Home](#)
[Contact Us](#)
[Logout](#)

About
 Project List
 Project
 Members List
 Providers List
 Forum
 Links
 Events
 Post or Edit a Project
 Edit Profile

Post or Edit Project
 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

Post New Project Edit Existing Project

Project Number System Generated

Categories
 ☐ Nets
 ☐ Navigation
☐ Logging
 ☐ Data capture
☐ Processing
 ☐ Etc

Project Status open

Project Name enter text...

Project Synopsis enter text...

Project Description enter text...

Project Aim enter text...

Proposed Project Outcomes enter text...

Project Timeframe enter text...

Budget Estimate If Known enter text...

Contact Person enter text...

Contact Details enter text...

Email enter text...

Add attachments Browse Add Upload

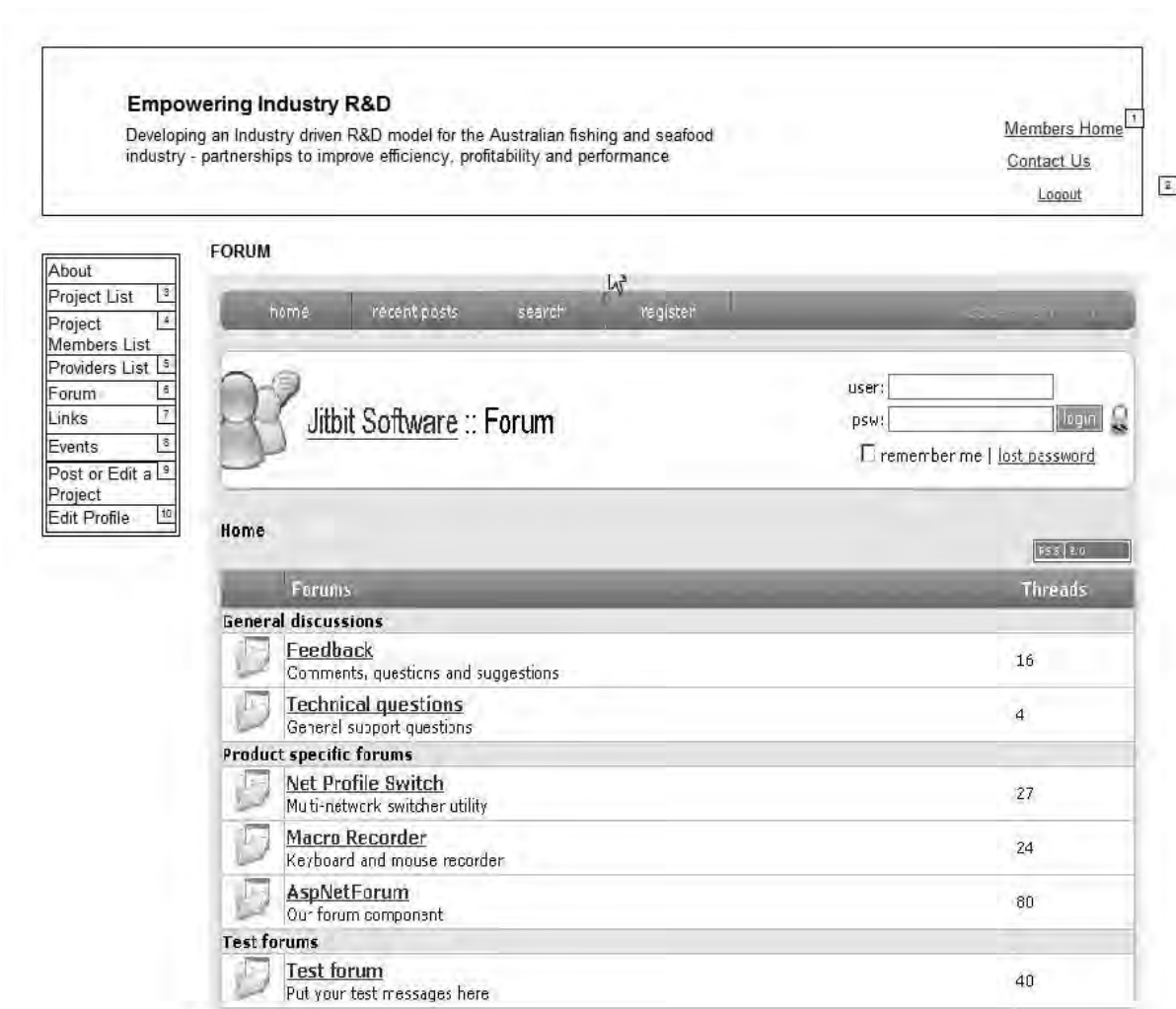
Update / Add Project

1.13. Forum

Forum may be 3rd party but must be integrated into members section and allow single sign on. i.e. users will not require secondary username and password to access forum.

Forum will require Moderator functionality

1.13.1. User Interface



2.0 Technical Considerations

Integration with Seafood Services

The Seafood Services website and this project will utilise a single common and central database of membership data. This decision was based on the fact that the two sites will share a relatively common membership base, however offering different but complementary services. It is expected that the Empowering industry process will expand the Seafood Services membership base over time.

The EIRD project site will have the following points of integration with Seafood Services.

1. Allow a member to login via the EIRD site using their Seafood Services username and password.
2. Allow a new member to register via the EIRD site, with the new membership details being transferred to Seafood Services.
3. Allow an existing member to edit their profile via the EIRD site.
4. Allow an existing member to access a "Forgotten Password" function.
5. Retrieve profile data for a specific member.
6. Query the Seafood Services database for members matching a set of criteria.

The various integration points will be implemented as follows:

Seafood Service Member Login Service

IMPLEMENTED AS : HTTP Web Service

SERVICE NAME: AuthenticateMember

REQUEST

Username	String (encrypted)	Username entered by member on EIRD site encrypted with shared key.
Password	String (encrypted)	Password entered by member on EIRD site encrypted with shared key and salted with username.

RESPONSE

Authenticated	Bool	True, if username and password matches against SSA database.
SessionToken	String (encrypted)	SSA website generates a GUID and encrypts with the shared key. This token will be passed in all further Web Service requests from EIRD site so SSA can apply further security checks to protect against calls from unauthorized sources.
ErrorCode	String	A value returned by SSA identifying an error if occurred. Can be used for troubleshooting.
ErrorMessage	String	A message describing the error.

Seafood Services will provide this Web Service based API that allows a username and password to be authenticated against their database. If successful, a success/fail value is returned along with an error code and error message. An empty error code will indicate no errors.

This service will be called when a member logs into the EIRD project site. If the response indicates that authentication succeeded, the EIRD site will establish a local session within the EIRD site. This session will allow access to EIRD's secure members section.

Within the response a SessionToken is returned. This will take the form of a GUID and is uniquely created for each call to AuthenticateMember. See section below on Security Considerations.

Member Registration (iFRAME via EIRD site)

Implemented As: iFrame friendly form hosted on SSA site.

Url : To be provided by SSA.

Query String Parameter 1: ?token=SessionToken (issued by AuthenticateMember)

Query String Parameter 2: &responseUrl=http://www.eird....

Currently new members join the Seafood Services members database by registering via the online form on the Seafood Services site. Members will also be able to register via the EIRD project site.

Seafood Services will provide a registration page that is suitable for embedding inside an iFrame on the EIRD site (e.g. without the banners, menus etc).

The Seafood Services form will expect a response url to be provided in the query string. Seafood Services will redirect to this url when a successful registration has been processed – this ensures the iFrame is redirected back to the EIRD site. The member will then be able to login to the EIRD site using their newly registered profile.

Forgotten Password Facility (iFRAME via EIRD site)

Implemented As: iFrame friendly form hosted on SSA site.

Url : To be provided by SSA.

Query String Parameter 1: ?responseUrl=http://www.eird....

Members be able to complete the forgotten password facility on the SSA site. Seafood Services will provide a form to be displayed via an iFrame in the EIRD project site.

Member Profile Update (iFRAME via EIRD site)

Implemented As: iFrame friendly form hosted on SSA site.

Url : To be provided by SSA.

Query String Parameter 1: ?token=SessionToken (issued by AuthenticateMember)

Query String Parameter 2: &responseUrl=http://www.eird....

Members will update their member profile details via the same process as the Member Registration. Seafood Services will provide a form to be displayed via an iFrame in the EIRD project site.

Retrieve Member Profile from Seafood Services

Seafood Services will provide a web service API that will return member profile data back to the EIRD project site. The service will require a Member ID and an authentication token to be provided as inputs. The technical details of the authentication token have not yet been defined, however this is envisaged to be a guid returned during the Login Service. This token is required to ensure a level of security is in place so ad-hoc calls cannot be made against the web service from unauthorized sources.

IMPLEMENTED AS : HTTP Web Service

SERVICE NAME: RetrieveMemberProfile

REQUEST

SessionToken	String (encrypted)	SessionToken.
MemberID	String (encrypted)	SSA unique ID of member - encrypted with shared key.

RESPONSE

Profile	XML Record of complete member data.	
ErrorCode	String	A value returned by SSA identifying an error if occurred. Can be used for troubleshooting.
ErrorMessage	String	A message describing the error.

Retrieve Member Profiles (from Seafood Services) Query

Seafood Services will provide a web service API that will accept a query criteria (e.g. members in a specific industry sector) and return matching member profiles. The web service will also require an authentication token to be passed as an input parameter. This token is required to ensure a level of security is in place so ad-hoc calls cannot be made against the web service from unauthorized sources.

IMPLEMENTED AS : HTTP Web Service

SERVICE NAME: RetrieveMemberProfiles

REQUEST

SessionToken	String	SessionToken.
IndustrySectorCode	String	SSA ID of industry sector code

RESPONSE

MatchingProfiles	XML collection of member profiles in industry sector.	
ErrorCode	String	A value returned by SSA identifying an error if occurred. Can be used for troubleshooting.
ErrorMessage	String	A message describing the error.

There will be additional filter criteria defined.

Security Considerations

There are three levels of security to protect the exchange of data between the EIRD and SSA sites.

1. **IP Address of EIRD.** SSA should only accept requests from the IP address of the EIRD web server.

Potential Weakness: IP address spoofing could allow an attacker to spoof requests and make them look like they are coming from EIRD server.

2. **Shared Key.** A key is used to encrypt any sensitive data sent between EIRD and SSA sites. This key is shared by both EIRD and SSA.

Potential Weakness: Ex-employee or hacker discovers shared key and uses this to encrypt/decrypt data by monitoring IP packets to discover passwords etc. To use the key, hacker would need to put in place packet sniffing and intercept data transfer. This may be a concern for banking data, but would be a lot of effort to go to for data at this level.

3. **SessionToken.** To call any web service a session token is passed as one of the parameters. The session token is only valid for 24 hours, from when it is issued by SSA. SSA would deny any requests using any session tokens older than 24 hours. The SessionToken is issued in the response of an "AuthenticateMember" web service call by the SSA server.

Potential Weakness: If a SessionToken is discovered by a hacker, it could be used to request data from the SSA server for up to 24 hours from when the token was first issued. Note: The hacker would also have to spoof their IP address and also have some way to discover the tokens being passed in the HTTP packet in the first place.

While there are additional measures that can be taken these approaches are easy to implement and would provide a reasonable level of protection against this category of data.

Attachment 7 Industry Data Collection Sheet - Phase 2

Empowering Industry - Industry Inclusiveness in FRDC FRAB Process

ORGANISATION	DETAILS
Your name	
Industry sector	
Industry role	
What is biggest issue?	
What could be done?	
How would the outcome improve your situation?	
What sort of outputs are you after?	
What sort of help is needed?	
Phone	
Email	

Attachment 8 Summary of Theme, Issues and Individual Concerns

Summary of common themes across sectors /jurisdictions as at 12 April 2011

Key theme	Key issues	Summary of concepts from www.empoweringindustry.com
Improved Consultation, Communication	<ul style="list-style-type: none"> – Internal and across sectors and stakeholders – Extension methods – The issues are common across all sectors and jurisdictions and a cooperative approach would be beneficial – Need for improved relationship and engagement between Industry and Govt - why does it break down – How are organisations relevant to members – It is not clear within the fishing and seafood Industry, who's who and why – Communication is challenging in this 'communication age'. – industry needs to develop tools to effectively influence political and agency decision as well as engender consumer support 	<ul style="list-style-type: none"> • Improved extension of seafood industry through a range of means including scholarships to promote opportunities in regional and remote areas • How do we improve interactions between Government and Industry to lead to positive outcomes – little faith in research findings and management regimes. • Consultation from association down and up again - politics of industry • Member satisfaction and communication – 2 way • cost effective consultation in unstructured sectors • Knowledge of the most effective avenues of extension into the rec sector (and various components within the sector). Both the social aspects and cost effectiveness. • develop strategic alliances with other stakeholders • communication and extension between Government and indigenous people to explain rules and regulations • improve relationship and communication between managers, researchers, environmental and fishers • better engagement with policy/decision makers • Peak bodies often captured by Govt, members don't see benefits and support lessens making buy in weaker • There is a need to identify the key messages • Need to develop a network of advisors • Developing a 'bird' in every port – a point of contact/support • A disjunct between groups sending the message and those receiving • Different priorities at top and bottom • One thing being said another being heard • There are issues with trust and relationships in uncertain environment • There are many competing messages directed at different levels of the industry (rumour control) • What do the different levels of organisations do • What representation do or don't people have • What value is being offered to members by associations • Lack of clarity as to what 'product' is being offered by associations • Improving communication between Industry and Agencies – why does it breakdown and what can be done • Identify options for a range of communication options, including 'professional for hire' • Work to enhance communication across and between industry • Improve communication and negotiation skills in the industry • Develop means to engender support from consumer • Develop an industry map to identify who to contact - who can help me
Involvement In Management (Inc Traditional Knowledge)	<ul style="list-style-type: none"> – Recognition of sectors value to management process – Understand government strategies or drivers – Real Integration of sectors into process – Better define 'no go areas' – Stop restricting access to traditional grounds – Food security issues – lack of understanding and respect - all sectors have something to offer – Need to learn to deal with existing management arrangements which may not be optimal, but are unlikely to change – Industry needs to learn 	<ul style="list-style-type: none"> • Existing size limits inadequate or need revision (eg in NSW Silver trevally, snapper) - how to mount argument. • Individual pot identification. Pots need to be individually identifiable with a non reusable tag to deter theft. • Fish size limits keep increasing and market demand is for smaller fish • Increase management involvement • Improved management structure and people • Understanding Govt long term strategies • Better integration of government, industry and recreational sectors to focus o future of fisheries resources • Empower small marginal fishers to actively engage in management/research/ems in their fisheries /NRM • Reduce areas of green and yellow zones on GBRMPA • A true commitment by Govts to assist and value industry by reversing the devastating decisions of the past amongst other things including reducing red tape big brother type activities to the extent they are at • Prevent closure to traditionally fished grounds • Incorporation of indigenous knowledge into contemporary management (other sectors as well) • Development of a management structure that places a premium on resource stability and acknowledges other values, beside purely economic outcomes • Undertake a survey of traditional fishing methods and adjust legislation to allow appropriate activity • An over-riding lack of confidence and certainty in management decisions • What tools or techniques are available to run a business (and industry) in such an environment • Need to identify what help is needed to operate in such an environment • Develop tools to facilitate the ability to change to meet demands (industry, consumers

Key theme	Key issues	Summary of concepts from www.empoweringindustry.com
	to take the first step - co-management can lead to greater control – how do we realistically get there.	and regulators) <ul style="list-style-type: none"> • Develop good relationship with management agency to achieve mutual benefit • Industry needs to develop skills and techniques to be able to effectively communicate
Carbon	<ul style="list-style-type: none"> – what does it mean – carbon uptake – impacts on remote fisheries 	<ul style="list-style-type: none"> • Carbon – where they stand, impacts • Registration for carbon trading • Seafood as a carbon uptake and sink
Industry Standards And Protocols	<ul style="list-style-type: none"> – Industry/fishery standards – Traceability – Product consistency quality – Training 	<ul style="list-style-type: none"> • Industry standards • lack of recognition of Australia environmental performance – tariffs • traceability - \$\$ and health • consistency in every aspect of market pride • improve product quality and market insight
Marketing and product development	<ul style="list-style-type: none"> – price and pricing – security – new markets – impacts of other markets on Australian producers – branding – supply chain approach – market industry – value adding opportunities (including providing seasonal and regional produce) 	<ul style="list-style-type: none"> • Supplying consumers in a contracting industry. • Concerns at being able to supply local produce to consumers in a contracting industry. • Means to meet consumer needs • Improved seafood product packaging, processing and storage. Improve shelf life, smooth out supply surpluses, meet seasonal market needs. Species such as school and estuary king prawns • Value add product to improve return to fishers – supermarket, exports and to meet seasonal demand and species being caught • Prawn freezing techniques to control oversupply. Have been some unsuccessful prawn freezing attempts in past – need to identify key factors to improve quality and shelf life • Co-ops need to improve marketing strategy. Co-ops need to develop strategic marketing plans to gain better prices for fishers and shareholders. • Value adding product through a strategic marketing plan. Need to identify options to value add as part of a strategic approach to increasing profitability for members • Numerous fishing cooperatives and small fishing businesses are looking to increase the supply chain options available to them by freezing a portion of their fresh catch. Currently, many people report a lack of capacity, knowledge and skills (or a combination of these) that prevents doing this successfully or has been product loss/damage in past • Better prices for product • More market security • Increased yield in production • Access to larger markets • Identify what is coming in from EU, UU, US. Ecolabel. Biological sustainability. Community sustainability, risk assessment • Improve marketing • Better prices for product • Branding and marketing • Better marketing leading to more business through the supply chain • Identify improved marketing opportunities • Maintaining live product in tanks • Live product for niche markets • Improve returns on what fish is already caught • Value-adding • Assess the seafood supply chain performance • Assess what the purchasing decision drivers of consumer/buyers is • Lack of consumer support means that industry is alone and has little voice • Cooperation between individuals to improve marketing • Need to identify what the consumer want and meet demand • Use new media to reach clients/customers.
Freshwater Use	<ul style="list-style-type: none"> – Reduce, recycle – Use elsewhere – Undertake water audits of a range of existing processors to identify levels of water use and determine benchmarks – Identify water standards and 	<ul style="list-style-type: none"> • Fresh water use • what does water use cost • freshwater use - reduction, reuse, recycle • use dirty water for agriculture • identify means to minimize water use • identify means to minimise power cost

Key theme	Key issues	Summary of concepts from www.empoweringindustry.com
	<p>potential alternate, or multiple, use options for water</p> <ul style="list-style-type: none"> – Identify options to minimise costs to processors and environment from waste water discharge. – Develop water efficient equipment - Hand Filleting and Shucking Bench 	
Access and Security	<ul style="list-style-type: none"> – reduce conflicts long term – security – staffing – co- management options 	<ul style="list-style-type: none"> • Access and security to resource • recognition of tenure in marine leases • property rights • intersectorial conflicts • improved cooperation • identify means to be able to staff for seasonal fisheries (and in remote areas)
Stakeholder Lead RD&E and Compliance (inc data collection and extension)	<ul style="list-style-type: none"> – improve compliance and reduce costs – recognition of industry collected data and analysis – improve CE data – use fishers – make priorities for RD&E well known 	<ul style="list-style-type: none"> • Resource compliance – use stakeholders • Recognition and capacity to undertake their own data collection and commission r&d • Understanding of biology and exploitation and management for abundance • Deal with recreational black market issues • Priorities research projects - list on website, make widely available to help facilitate improved process for development of project ideas through engagement of researchers with industry stakeholders\ • Having better catch/effort data and tagging information. – through industry • Improved reporting of quota discards • Need for rec fishers and other stakeholder to be able to collect data and commission research that will be accepted • Existing data collected by agencies , especially with public funds to be made available for analysis
Socio Economic	<ul style="list-style-type: none"> – what are fisheries really worth – determine real value – not perceived – social capacity of communities 	<ul style="list-style-type: none"> • Measure reduce number of fishing licences to met resource and market needs • Socio economic benefits – not perceived • Social capacity of coastal communities • Closing areas – how to supply local product all year round when then don't have access to local fish • Economies of scale when do fisheries fall over from lack of fishing grounds
Environment Issues	<ul style="list-style-type: none"> – oil and gas – interactions with marine life – improved education of work done – non fishing impacts on sustainability – climate impacts on fisheries – Climate change is 50 years away!!! and individuals going broke – Using technology to reduce gear loss 	<ul style="list-style-type: none"> • Non fishing impacts on fish and fisher survivability. Impacts from barrages and other non fishing matters can have sever negative impacts on fisheries • Protection of environment and assessment of impacts on resource driven by non fishing activity. Highway runoff, urban development, water quality, off stream impacts, black weed dead in river • Electronic or sonic pot float release. Large coal ships continually snag up or cut off float lines of traps so that they can't be retrieved. This comes at a cost to fishermen and also has the potential to cause ghost fishing. Current technology relies on sacrificial anodes which can't be reliably timed • Impacts of flood mitigation measures on eel fisheries. Development of barrages leads to weed growth and restricts water flow. • Fish trap loss outside in deeper water – hit by ocean going tankers • Oil spills • Assess impacts of water use on the health of the resource • Reduce impacts of seals on fishing operations • Projects on bird/seal interaction. • Research into fishing /oil gas accord • Education and public perception - interactions with no target species (bycatch and seals, birds, whales • Deal with real environmental issues such as impacts of dams, water quality and habitat destruction • Recognise the impact on waters from city and agriculture on the productivity of estuaries and oceans • Rainfall impacts on productivity • Lost lobster pots /- economic loss and ghost fishing
Industry Perceptions	<ul style="list-style-type: none"> – educate other sectors – improved perceptions by the public 	<ul style="list-style-type: none"> • Perception of industry • To educate all recreational fishers that we do not rape the seabed and stocks • Improve public perception of commercial fisheries and dispel common myths about the

Key theme	Key issues	Summary of concepts from www.empoweringindustry.com
	<ul style="list-style-type: none"> – depoliticize – Promotion of good work already done. Codes, EMS EPBC – better extension - SeaNet 	<p>industry</p> <ul style="list-style-type: none"> • Depoliticising of fishing issues - government acknowledge truth instead of perceptions • Promotion of product and industry for community awareness • Public education of the benefit of growing shellfish • Greater funding for tide to table project and seaneet program • Raise profile of Victorian commercial industry and promote seafood industry
Business Success Models	<ul style="list-style-type: none"> – identify drivers and inhibitors – develop appropriate models and planners – build capacity – identify efficiency options and potential adaptations – adapting to a quota controlled fishery 	<ul style="list-style-type: none"> • Provide easy to use assistance to vertically integrate small fishing businesses and regional areas. • Quality control as a co-op • Need access to low coast loans for start up for new fishers into industry • Developing successful business models for co-ops. Identify inefficiencies, skills shortages, success/failure factors in a changing environment. Develop business/models or structure that assist in success • How to increase attractiveness of co-ops to fishers. With the deregulation of fishing in NSW fishers no longer have to utilise the local co-op and this has lead in some instances to co-ops not being able to operate profitability • Development of business plans for co-ops and individuals. • Develop support mechanisms to assist fishers and co-ops to operate more effectively. • Helping fishers to understand how to run a profitable business. Often fishers don't understand the issues around profitability; i.e. Costs v returns, the \$ in the pocket. • Determine success factors for viable indigenous seafood businesses • Identify models for success • Build capacity - management and fishing • Assess indigenous social and economic impacts arising from development and fishery management decisions • Better systems for small business • Design a simple to use budget planner for industry • Fishers/producers/processors taking a more hands on control of their businesses • How does the industry and individuals adapt to a quota controlled fishery (operational and business wise).
Improved Fishing	<ul style="list-style-type: none"> – Stocking – Redefining fishing 	<ul style="list-style-type: none"> • Better stocks of inshore species - herring, tailor, mullet, silver trevally, tarwhine etc • A tighter regulated fishery with higher abundance and lower catches but more reliable (need social research to test this). Education on possible benefits • Increased expectation that I will be able to catch a fish. Enhanced fishing opportunities eg stocking, habitat enhancement
Health Benefits	<ul style="list-style-type: none"> – building on the links between seafood and health – between fishing and health – developing a network of health advisors to help improve the Physical, Mental and Business Health of the fishing/seafood industry 	<ul style="list-style-type: none"> • Show link between indigenous health and the collecting and eating of seafood • Developing a 'bird' in every port – a point of contact/support - WINSC • Undertake fishing health checks on a regional basis – in a safe and non threatening environment to include: physical, mental and business • Mechanisms to help fishers, farmers, processors and their families cope with life • Impacts of industry changes to community health • Sustainable fishing and seafood industry (sustainable farm families program has funding) • Tools to improve men's health - sharing of issues, in non threatening environment.
Improved Efficiency and Operating Costs by industry and Government	<ul style="list-style-type: none"> – fuel – gear efficiency or type – restrictions – improved feed – impacts of biofouling – value adding – shelf life – reducing paperwork – Fishing Business Ready Reckoner – Preparing Fishing Businesses to move to Quota – Improving the Physical, Mental and Business Health of the fishing/seafood 	<ul style="list-style-type: none"> • Reducing government management fees. Fees can be a major expense for small fishers • Looking to improve fishing gear – efficiency/sustainability and profitability in current management system • Concerns over previous NSW Fisheries surveys and lack of finding that lead to improved efficiency, profitability or sustainability e.g. Black bream and school prawns. Too often to satisfy curiosity not lead to positive changes. • Problems with mud crab mortality. Currently mortality rates along the supply chain for live mud crabs are causing concerns for a number of fishers in NSW. Assistance is required to identify the causes of mortality of mud crabs and to identify best practice options to optimize survival (project submitted John Harrison) • Capacity to freeze prawn when there is a glut • Electronic or sonic pot float release. Large coal ships continually snag up or cut off float lines of traps so that they can't be retrieved. This comes at a cost to fishermen (\$500 per trap) and also has the potential to cause ghost fishing. Current technology relies on sacrificial anodes which can't be reliably timed (project submitted by Phil Roach) • Understanding costs of operations of a processing plant. There is a need to rein in the ongoing costs associated with water and power use. • Understanding the supply chain to improve profitability. Fishers don't understand the supply chain and their role in providing quality product to the consumer

Key theme	Key issues	Summary of concepts from www.empoweringindustry.com
	industry	<ul style="list-style-type: none"> • Need for a simplified licensing system to allow operational flexibility • Reducing operating costs and increasing returns at a the co-op • Alternate fuels and operating methods to reduce operating costs - fuel price reductions • Fuel efficiency • Improved use of fishing gear - including use of additional gear/net • Improved efficiencies - fish husbandry, feeding, harvesting, energy • Value adding prawns and scallops. • Reduce costs and increase quality of product • Biofouling – farm gear and vessels • Excessive paperwork – a way out of it • Understanding what are the economics of their business) • Build cost-efficiency into operations • Options to reduce running costs – need to understand how business operates • Adapting fishing operations to optimise returns • Value adding opportunities • Understanding that fishing is a business • Develop simple indicators of business health – how is my business going • Making business robust to uncertainty / change • Identify means to be able to staff for seasonal fisheries (and in remote areas) • General processing of seafood prawn etc – best practice
Training, industry and personal development	<ul style="list-style-type: none"> – well trained staff – not necessarily 'qualified' – use mentoring processes – courses or training specific for need SETFIA skippers – management 101 – use stakeholders to train others 	<ul style="list-style-type: none"> • Bring new blood to industry. • Succession planning in the fishing and seafood industry. • Where is the new generation of fishermen coming from? What are the alternatives to just son's of fishermen. Fishing industry membership is getting older and retiring. Need to have a renewing of the fishing workforce with younger, keen people that are educated to support sustainable fishing practices. • Induction and training for new entrants to fisheries. Learn how to operate in the fishery as well as within the co-op to maintain professional image and protect industry - often from stupid mistakes. More than a code of conduct and should include some form of mentoring • Induction and mentoring process. Need to develop easy to use and fisher friendly induction processes. Consider using retired fishers as mentors. • Need for a generational change in the industry. Need to generate methods to increase the number of younger fishers in the industry. How to make it an attractive career option and develop knowledge transfer options beyond families • Work life balance. Identifying means to improve work – life balance for fishers and family. Possible counselling options • Identify blockages to people joining the co-ops • Training not necessarily VET aligned • Staff crew well trained – esp. Remote areas • Increased education of management processes and arrangements – all sectors • Skipper annual accreditation SETFIA 2 day • Develop environment and indigenous based tours to extend knowledge to a broad range of people, seafarers, fishcare etc • Provide mentoring service • Extra experienced staff in operations area • Improve political liaison skills • Upskilling needed to head up associations • Training of up and comers into what is needed to operate in the fishery.
Species focused RD or E		<ul style="list-style-type: none"> • Filtration and water quality in live eel tanks. Get mortality of eels possibly as a result of waste release of live eels in captivity (project submitted by Glenn Dawson) • Investigation of juvenile pipi mortality on northern NSW beaches.. Over the last 4-5 years looks to have good juvenile settlement which grow up to the size of small fingernail and then disappear – not sure if they move or die

**Attachment 9 Empowering Industry Workshop - Improving Small & Family
Businesses**



Empowering Industry RD&E¹ Workshop

Empowering Family and Small Businesses in the Fishing and Seafood Industry

Workshop Summary

Monday 12.00pm - 4.30pm, 31st May 2010

Technology Park Function Centre, Seminar Room 4, Bentley, WA

Ian Knuckey and Chris Calogeras

Supported by
Fisheries Research Development Corporation (FRDC)
Centre of Excellence for Science, Seafood & Health (CESSH)

¹ (FRDC project # 2009/300). 'Empowering Industry Research, Development and Extension (RD&E): Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance' (further details at <http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>.)

1. Introduction

The Fisheries Research and Development Corporation (FRDC) have funded the 'Empowering Industry' project to increase industry driven research, development and extension (RD&E) in the Fishing and Seafood Industry. As part of this project a series of workshops are being held to help address key concerns that have been identified by grass roots fishing and seafood industry people across Australia.

The workshop in Perth came about because the issues surrounding running and maintaining a small/family fishing, aquaculture or seafood business, especially in light of a contracting industry, have been raised a number of times through the Empowering Industry project's national forums. The workshop's aims were to identify key issues and to then scope projects that can help family and small businesses in the fishing and seafood industry better run their businesses from an economic and social perspective.

Key priorities and focus areas will be identified by participants as a precursor to the development of RD&E project proposals through the Empowering Industry project.

The workshop had discussions around the following issues:

- Health, including injury, stress and depression;
- Staffing and succession;
- Work/life balance and family and community impacts;
- Business management;
- Dealing with bureaucracies;
- Governance;
- Managing in uncertainty; and,
- Marketing options.

This document provides a summary of the workshop outcomes and will be provided to a range of interested users in the fishing and seafood industry seeking further input prior to formal project development.

2. Workshop participants:

A range of participants from industry groups were invited to the workshop. Final participants were:

- | | |
|---------------------|---|
| • Damien Bell | BellBuoy Seafoods |
| • Geoff Campbell | Southern Joint Authority Demersal Gillnet Fishery |
| • Jason Barrett | Western Rock Lobster (WRL) Fishery - Ledge Point |
| • Leonie Noble | WRL Fishery |
| • Maria Santaromita | Squid and Crab Fishery |
| • Mary Ash | WRL Fishery |

- Neil MacGuffie SeaNet Extension Officer
- Robbie Santaromita Squid and Crab Fishery
- Shane Miles Processor and beach seiner
- Zac Launay Mussel farmer
- Prof Rowena Barrett Edith Cowan University.
- Janet Howieson Centre of Excellence for Science, Seafood & Health
- Ian A Knuckey Fishwell Consulting
- Chris Calogeras C-AID Consultants

Apologies

- Ken Moore RIRDC
- Darren and Julie Blom West Coast Demersal Scalefish Fishery
- Megan Watts Watties Place

Prof Rowena Barrett from the Edith Cowan University was invited to the workshop to provide skills and knowledge with respect to family and small businesses. Prof. Barrett recently returned to Australia from the UK where she was Professor of HRM and Small Business at De Montfort University, Leicester where she also led the Small Business and Entrepreneurship Research Group. She established the Family and Small Business Research Unit at Monash University, which focussed on working with small business owners, organisations, and policy makers to address issues of concern.

3. Workshop overview

Workshop participants' views were sought on current situations that impacted on them, their families, communities and industries. The issue of health and work/life balance, staffing, business operations and profitability, marketing, the high level of uncertainty, communication and difficulties dealing with bureaucracies were raised.

The discussions lead a number of issues being raised across sectors and geographic locations in relation to building resilient small/family fishing businesses. These issues were then grouped into broad areas of similarity, i.e.;

Need to Improve Return/Profitability

- design a simple to use budget planner for industry
- fishers/producers/processors taking a more hands on control of their businesses (understanding what are the economics of their business)
- build cost-efficiency into operations
- options to reduce running costs – need to understand how their business operates
- adapting fishing operations to optimise returns
- value adding opportunities

- understanding the supply chain to maximise returns
- opportunities to develop group investment into processing.

Building a Safety Net

- developing a network of advisors
- developing a 'bird' in every port – a point of contact/support
- building on the links between seafood and health
- identify means to be able to staff for seasonal fisheries (and in remote areas)
- learning to deal with existing management arrangements which may not be optimal, but are unlikely to change
- industry learning to take the first step
- co-management can lead to greater control – how do we realistically get there.

Health Checks

- undertake fishing health checks on a regional basis – in a safe and non threatening environment to include:
 - physical
 - mental
 - business
- understanding that fishing is a business
- develop simple indicators of business health – how is my business going
- making business robust to uncertainty / change
- mechanisms to help fishers, farmers, processors and their families cope with life
- impacts of industry changes to community health
- sustainable fishing and seafood industry (sustainable farm families program has funding)
- tools to improve men's health - sharing of issues, in non threatening environment.

Operating In an Uncertain Management Environment

- an over-riding issue is lack of confidence and certainty in management decisions
- what tools or techniques are available to run a business (and industry) in such an environment
- need to identify what help is needed to operate in such an environment
- develop an industry map to identify who to contact - who can help me
- develop tools to facilitate the ability to change to meet demands (industry, consumers and regulators)
- develop good relationship with management agency to achieve mutual benefit
- industry needs to develop skills and techniques to be able to effectively communicate
- how does the industry and individuals adapt to a quota controlled fishery (operational and business wise).

Marketing

- identify improved marketing opportunities
 - maintaining live product in tanks
 - live product for niche markets
 - improve returns on what fish is already caught
 - value-adding
- assess the seafood supply chain performance
- assess what the purchasing decision drivers of consumer/buyers is
- lack of consumer support means that industry is alone and has little voice
- cooperation between individuals to improve marketing
- need to identify what the consumer want and meet demand
- use new media to reach clients/customers.

Improved Communication

- industry needs to develop tools to effectively influence political and agency decision making
- identify options for a range of communication options, including 'professional for hire'
- work to enhance communication across and between industry
- improve communication and negotiation skills in the industry
- develop means to engender support from consumer
- improve political liaison skills
- upskilling needed to head up associations
- training of up and comers into what is needed to operate in the fishery.

4. Outcomes and potential projects

Due to specific concerns in WA relating to ongoing issues with the status of the WRL and a perceived breakdown in communication between the agency and Industry it was difficult to develop clear and agreed projects through the workshopping process that might be applicable on a national level. However, some key themes and potential projects possibilities were identified. These are briefly discussed below.

4.1. Fishing Business Ready Reckoner

There was an opinion at the workshop that fishers/producers/processors needed to have a greater understanding of the operational and financial implications of business decisions they make; i.e. gain a better understanding that fishing is a business and therefore what are the economics drivers for their business.

It was felt that in many instances operators were unsure of whether they were operating profitably, or not, based on particular fishing outcomes; e.g. how much product do they

need to catch at what price to pay fixed costs, operating costs or unexpected costs before breaking even.

A simple-to-use planner, similar to what has been developed in many of the farming, horticulture and agriculture industries was proposed.

Such a tool could allow operators to assess theoretical benefits from possible operational, marketing and efficiency changes.

4.2. Preparing Fishing Businesses to move to Quota

A number of fisheries in Australia are in the process of moving from input based fisheries to quota management (e.g. WRL, NPF, NT offshore snapper fisheries).

A majority of operators in these fisheries have not operated under an output-control fishery and they are very uncertain about their new operating environment. What are the implications for their business? Do they need to change their businesses to remain profitable? How do they get involved in the quota sales and leasing market to the benefit of their business? The understanding and decision making skills needed to adapt their businesses to a quota controlled fishery (from an operational and business perspective) are not well established in these industries.

There was agreement on the benefits of developing a generic tool, or guide, to facilitate industry's ability, not just to meet regulators requirements under a quota managed fishery, but to pro-actively prepare their businesses to be healthy and profitable in a quota-managed fishery.

4.3. Improving the Physical, Mental and Business Health of the fishing/seafood industry

The social and business impacts arising from fishery adjustments and rationalisations over recent times have been implicated in the deterioration of the fishing and seafood communities' physical and mental health, especially in regional and remote centres. At the same time, health of businesses within a number of fisheries has been impacted on – leading to further physical and mental health issues.

It was considered worthwhile investigating the development of a project that sought to utilise a network of regional advisors using existing processes/people, i.e. a point of contact which could assist people in regional fishing and seafood businesses improve their personal and business health.

This process could involve undertake fishing industry health checks (physical, mental and business) on a regional basis – in a safe and non threatening environment.

Aspects of this project could include:

- Developing an industry map to identify who to contact
- Identifying and capturing impacts of industry changes on community social, mental, physical and business health
- Scoping what a sustainable fishing and seafood industry (social, economic and environmental) is –how to operate in such an environment, and means to achieve it
- Developing non-threatening ways to get industry members (especially men) to participate
- programs to help fishing and seafood members, their families and communities ‘cope’ better with life.

4.4. Improving communication between Industry and Agencies – why does it breakdown and what can be done

The workshop participants were strongly of the view that lines of communication between industry and fisheries management agencies had broken down and this was putting excessive pressures on industry in times of uncertainty.

An inability to have discussion on ways forward to reach mutually beneficial outcomes was identified as an impediment to good management, sound industry governance and confidence in management arrangements. The co-management model is espoused as the modern fisheries management aim, but it was questioned how that can realistically be achieved without open communication.

A process to assist Industry to develop the necessary skills to be better able to effectively communicate and negotiate with agencies, government and better liaise at a political level was highlighted, as was a desire to see agencies and government improve their communication with industry – a two way process.

This process needs to ensure that the current and future generations of industry members are sufficiently well skilled in communication and negotiation processes to allow them to fully partake in the industry’s development, as well as being able to manage their existing industry associations.

4.5. Social capacity of coastal communities

The establishment of many coastal communities was based around the commercial fisheries taking place in their vicinity. As such, fishing, fishers and associated support have been an important and intrinsic part of the fabric of these communities. Lifestyle option, as well as economic considerations, played a major part in the decision to be involved in the commerce industry for many participants. In Western Australian in particular, this was assessed in Huddleston and Tonts 2007 FRDC report ‘A scenario analysis of the social impact of the western rock lobster industry management options on fleet hosting communities (FRDC project 2004/247)’. Since that report, however, the situation has appreciably changed with fisher and boat numbers significantly reduced along the coast, to such an extent that

many towns have seen their social fabric changed, with sports team, volunteer services and associated service such as enforcement, health, schooling and business severely impacted.

A revisit of the social impacts due to the ongoing and proposed fishery management changes to quota (for WRL) was highlighted as a valuable project.

Attachment 10 Empowering Industry Workshop - Peak Body Communication



Empowering Industry¹ Workshop

Strengthening Membership Communication and Support in Peak Industry Bodies in the Australian Fishing and Seafood Industry

Workshop Summary

Tuesday 13th April 2010. 12.00 – 4.30pm

Sebel Albert Park, Melbourne, Victoria

Ian Knuckey and Chris Calogeras

Supported by

Fisheries Research Development Corporation

¹ (FRDC project # 2009/300). 'Empowering Industry Research, Development and Extension (RD&E): Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance' (further details at <http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>.)

1. Introduction

The Fisheries Research and Development Corporation (FRDC) funded the 'Empowering Industry' project to assist in increasing industry driven research, development and extension (RD&E) in the fishing and seafood industry. As part of this project a series of workshops are being held to help address key concerns identified by grass roots fishing and seafood industry people.

During meetings with industry over the past years through the 'Empowering Industry' project, maintaining lines of communication and improving the connection between peak, or representative, bodies and their members has repeatedly been raised as one of importance by all sectors in the fishing and seafood industry.

To assist in addressing this issue, the 'Empowering Industry' project, hosted a workshop to scope RD&E projects that can help peak or representative bodies, involved in the fishing and seafood industry, to improve the lines of communication between themselves and their constituents.

Participants for the workshop were sought from a wide range of the Australian fishing and seafood Industry.

The workshop focused on the following issues;

- Outlining the Empowering Industry Process
- Gaining an understanding of the current status of communication in industry bodies
- Identifying existing communication processes and their levels of success
- Identifying communication requirements
- Identifying ideas that may help address the problems
- Making use of communication expertise to outline potential solutions
- Developing/scoping a project(s) that could improve communication in the industry.

This document provides a summary of the workshop outcomes and will be provided to a range of interested users in the fishing and seafood industry seeking further input prior to formal project development.

2. Workshop participants:

A range of participants from industry groups around Australia were invited to the workshop. Final participants were:

Brad Warren	OceanWatch Australia Ltd
Chris Calogeras	C-AID Consultants

Christopher Collins	Victorian recreational fishers representative organisation (VRFISH)
Fiona Ewing	Women's Industry Network Seafood Community (WINSC)
Ian Knuckey	Fishwell Consulting
Kate Brooks	C/- Fisheries Research Development Corporation (FRDC)
Katherine Sarneckis	Northern Territory Seafood Council (NTSC)
Matt Koopman	Australian Underwater Federation (AUF) and RECFISH Australia
Michael Edwards	VRFish (RD&E Committee)
Neil MacDonald	NMAC (SA)
Peter Horvat	FRDC
Phillip Kerr	Victorian Indigenous Seafood Corporation (VISC)
Renee Vajtauer	Seafood Industry Victoria (SIV)
Ross McGowan	SIV
Sally Branson	Media Affairs
Sarah Reinhart	Tasmanian Seafood Industry Council (TSIC).

To help focus the workshop Sally Branson, an Australian Rural Leadership Program (ARLP) graduate, who has extensive experience and skills working in the media, public affairs management, communication and relationship building attended. Some of her roles have included working as a media affairs specialist for the US Consulate General, communication officer for the Murray Catchment Management Authority and as a Regional Liaison Officer for the Victorian Leader of the Opposition.

3. Workshop Overview

Through the Empowering Industry project, fishing and seafood peak and representative organisations, from across all sectors and jurisdictions, have raised the issue of improving and maintaining lines of communication with their members.

Workshop participants provided overviews of their current communication methods, issues they faced, requirements and any examples of successful communication programs. The following issues were raised (in no particular order);

- Industry members often don't see the work peak groups do behind the scenes – peak groups are often questioned – 'what do you do for me'
- There needs to be a means to 'value' the work done on industry's behalf by peak groups (e.g. cost recovery, MPA, access rights, research development, policy direction) – need to be able to relate it back to an individual business basis and/or as a return on their investment.

- Concerns that some groups will abandon peak bodies and form narrow focussed organisations – this can be a bigger problem when there is a big figurehead who is seen to be ‘fighting’ for industry. However it is unclear if they are doing the best for members?
- There is a need to establish linkages at all level of the industry from peak bodies to individual associations
- There were identified benefit in the sectors developing strong communication links (across sectors and jurisdictions) with a view to developing strong collaboration on key issues and working as ‘one industry’
- There is a general lack of resources and capacity to undertake effective communication or marketing
- Communication needs to be adapted and modified to meet the target group (simple pamphlets, web, email, letter, face to face etc) with clear messages
- There is a lack of ability to access R&D data
- There is a decreasing level of trust within industry, as a whole, and this has lead to poorer relationships which need rebuilding
- Many industry people are unaware where organisation, agencies and people fit into the overall scheme
- Although considered costly, the SeaNet approach of one-to-one interaction provides the longest terms benefits and relationships
- Most fishing and seafood industry people just want to fish and don’t care a great deal about what is happening in the broader industry – only when it directly negatively impacts on them
- ‘Communication’ is often considered a task and undertaken to tick off boxes
- There is a lack of incentive to become involved at an individual level, because if you show interest as an industry member you get pulled into more and more discussions and this can stop you fishing
- Communication can be enhanced if there is relationship building, partnerships built and capacity and skills are developed
- There is a need to make organisations relevant to their members
- Organisations need to recruit people who have the drive and commitment to deliver
- There is not a comprehensive easily accessible database of clients such as fishers, licencees, organisations and agencies

- There is often a disjunct between the people sending the message and those receiving it – need a process to render down information to meet clients needs – conversion of messages
- New communication methods/tools are well used in some levels of the fishing and seafood industry
- Increased knowledge, at a manager and researcher level, is needed to ensure a clear message is developed in a form suitable for industry
- There is a diverse range of industries, players and message throughout the industry
- Peak bodies need to understand how Industry clients digest the messages being given to them
- Messages need to be delivered at different levels (e.g. complicated – full reports, or simple – concise executive summaries) and probably in different forms depending on the circumstances (e.g. face to face with skippers). Need to repackage the same message in differing ways
- Communication is not about just sending out a message – it involves the receiver understanding what is being said and acting accordingly
- Similar messages are being developed throughout the fishing and seafood industry, are delivered in a haphazard and uncoordinated way – there is a need to get above organisational/sectoral competition for the benefit of industry as a whole - develop synergies
- It is unclear what existing communication resources are already available, what is needed, what are the gaps and what stage of the ‘consumer cycle’ each group is at in the industry
- There is a need for a communication resource hub
- There is a need to explore other options and drivers to improve communication – understand that ‘VALUE’ may be financial or social – use social sciences, communication expertise, marketers etc
- Using ‘recognised experts’ to deliver the message can lead to a greater level of recognition and prestige
- Associations can’t engage if they don’t understand their members, what they need and how they want information delivered – and how to obtain and receive feedback.

Participants identified the following recent or current relevant projects;

- TSIC Climate change communication project
- NTSC members survey

- FRDC project report 2008/0335 'Understanding the drivers of fisher engagement with industry bodies' by van der Geest and MacDonald.

4. Outcomes and potential projects

Workshop participants distilled the above issues to a number of key points. These were;

- A general lack of support and funding for associations
- A disjunct between groups sending the message and those receiving
 - different priorities at top and bottom
 - one thing being said another being heard
- There are issues with trust and relationships in uncertain environment
- There are many competing messages directed at different levels of the industry (rumour control)
- There is a need to identify the key messages
- It is not clear within the fishing and seafood Industry, who's who and why?
 - what do the different levels of organisations do?
 - what representation do or don't they have
- What value is being offered to members?
 - Lack of clarity as to what 'product' is being offered
- How are organisations relevant to members
- The issues are common across all sectors and jurisdictions and a cooperative approach would be beneficial
- Communication is challenging in this 'communication age'.

After workshopping these matters it was believed that these matters would be best addressed by developing a "tackle box" of communication methods that can be used across industry (all sectors, all levels, all jurisdictions).

This project will seek to provide a resource that is available across sectors and jurisdictions; it is not about individual issues.

It was felt that this could be addressed by developing a project (or projects) that;

- Audited the current status of communication in the industry peak bodies
- Clarified key selling propositions for associations
- Improved communication at a range of levels

- Clarified the audience/customer
- Optimised the communication delivery model.

These matters are expanded on in the following sections.

4.1. Communication Audit

A critical first step in improving communication involves undertaking audits across industry to gain an understanding of what tools have already been used and what the status of communication in the industry is. This would include identifying;

- What communication work has already been done in the fishing and seafood industry – success and failures (with a focus on developing trust / building partnerships / improving engagement / working in uncertainty)
- What other (similar) industry bodies have done it well and how have they done it
- Where current communication resources held, are they accessible and how
- What is the status of the industry's current communication resources, what levels of overlap are there and what are the gaps, what expertise is there.

4.2. Clarify Key Selling Proposition

Each of the peak associations needs to clearly identify their roles and responsibilities and develop an understanding of what their key 'selling proposition' is to members. This will be achieved by;

- Assisting *each association* to clarify their key selling proposition (what they do) and what the associated responsibilities are
- Developing a matrix of roles and responsibilities across the industry
- Identifying areas of expertise
- Identifying duplication in roles across associations.

4.3. Clarify the Audience/Customers

The workshop identified that industry members may be receiving multiple (and at times conflicting) messages from the industry. It also found that in instances associations were not clear on who their members were, as such it was proposed to;

- Clarify each associations customers/audience (generic) and their needs
- Identify where membership is shared

- Identify opportunities to minimise duplication and maximise information exchange opportunities.

4.4. Improve Communication

Although some associations have high level communication skills and links with members, in general it was felt that most associations performed poorly in this field and required assistance in improving communication. The lack of successful communication had lead in many instances to decreasing membership support. Communication was to be improved by;

- Identifying what methods are needed to push members buttons to get them to buy messages
- Developing a 'tackle box' of generic communication techniques that each association can tap into
- Providing means to assist *each association* to improve their two-way communication and membership support

4.5. Optimise Communication Delivery

Workshop participants were clear that optimising communication between and across the fishing and seafood industry was critical for the ongoing growth (and in some instances survival) of industry groups.

The current situation sees small, often volunteer driven associations attempting to provide effective communication across a wide range of issues. This was not seen as a viable long term option and that the development of an alternate model was crucial.

It was felt that this could be best achieved by;

- Developing structure and models that optimises communication delivery across, within and between associations, including options to 'share' resources
- Developing a central repository of fishing and seafood industry communication material that can be readily accessed.

Attachment 11 Empowering Industry Workshop - Water Use in Processing.



Empowering Industry R,D&E¹

Workshop to identify potential options for reducing freshwater consumption and discharge from facilities that process fish and seafood

Wednesday 10th March 2010, 1.00- 5.00pm

The Sydney Fish Market, Pyrmont, NSW

Ian Knuckey and Chris Calogeras

Supported by

Fisheries Research Development Corporation and the Sydney Fish Market

¹ (FRDC project # 2009/300). 'Empowering Industry RD&E: Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance' (further details at <http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>.)

1. Introduction

The Fisheries Research and Development Corporation (FRDC) funded the 'Empowering Industry' project to increase industry driven research, development and extension (RD&E) in the fishing and seafood industry. As part of this project a series of workshops are being undertaken to help address key concerns identified by grass roots fishing and seafood industry people.

This workshop in Sydney has come about because issues surrounding freshwater use/recycling/waste has been raised a number of times by seafood processors around Australia.

The workshop sought to scope RD&E projects that can help processors of seafood reduce their use of freshwater through improvement of facilities, potential recycling options and to minimise the amount of freshwater waste from such facilities.

The workshop focused on the following issues;

- Outlining the Empowering Industry Process
- Different water uses in fish processing factories
- Water quality requirements
- Methods for reduced water consumption
- Water discharge/treatment issues
- Potential for water recycling
- Development/scoping of projects to minimize freshwater use/discharge.

This workshop summary will be provided to a range of interested users in the fishing and seafood industry seeking further input prior to formal project development.

2. Workshop participants:

Potential participants from fish processing operations from around Australia were invited to the workshop.

Final participants were:

Ian Knuckey	Fishwell Consulting
Steve Buckless	Southlands Fish Supplies (SFS)
Brian Frew	A. Raptis & Sons

Bryan Skepper	the Sydney Fish Market (SFM)
Diana Skitworth	Southlands Fish Supplies (SFS)
Craig Murray	the Sydney Fish Market
Hudson Sweeting	NSW Department of Commerce (NSWDoC)
Chris Calogeras	C-AID Consultants
Michael Kitchener	Master Fish Merchants (MFM) (had to withdraw on day of workshop)

A range of other industry members have been involved, in the lead up to the workshop, but could not attend, including, Geraldton Fishermen's Co-operative, Melbourne Fish Markets, Aussea Seafood and Mures Seafoods. A number of these groups however contributed information to the workshop

To help focus the workshop, Hudson Sweeting, the A/Principal Water Savings Engineer with the NSW Department of Commerce attended. He has engineering experience encompassing a diverse range of projects involving the design of water and sewerage schemes and telemetry systems, the construction of new and upgraded water and sewerage installations, as well as water and energy audits and reviews for Sydney Water Corporation and other Public Sector services.

3. Workshop Overview

The workshop sought to:

- Gain an understanding of the levels of water use and issues around disposing of waste water in a range of seafood processing establishments
- Identify ideas that would help address the problems and issues around freshwater use
- Make use of expertise in water management to workshop issues and outline potential R&D solutions
- Develop the objectives and methods for a collaborative project that would meet Industry needs.

The economic and ecological impacts of freshwater use in the processing of seafood has been raised by a number of fish and seafood processing businesses in all jurisdictions through the Empowering Industry project.

The workshop sought to identifying means to reduce freshwater use, improve the quality of any waste water produced and identify possibilities to reuse treated waste water where non potable water may be used.

Workshop participants identified the volume and cost of freshwater use at their various establishments ranged from \$3,000 to over \$20,000/month.

Water discharge costs were also discussed and costs varied greatly due to the diverse local waste requirements, but in a number of instances it was over 30% of the cost of purchasing water. In addition there was an acknowledgment that the cost of waste water disposal would continue to increase and that the legislative requirements to improve the quality of waste water would become more stringent. This had the capacity to minimise growth opportunities in a number of instances.

4. Outcomes and potential projects

Workshop participants identified a number of key areas to focus on.

From a water use/discharge perspective these were a need to;

- Undertake water audits of a range of existing processors to identify levels of water use and determine benchmarks
- Identify water standards and potential alternate, or multiple, use options for water
- Identify options to minimise costs to processors and environment from waste water discharge.

It was believed that these three matters could possibly be addressed under one project.

The other major outcome was to undertake further development of a prototype water reduction fillet/shucking table that maintained product quality and food safety requirements.

4.1. Water Audit

Undertaking comprehensive water audits were considered a critical first point in managing and improving freshwater use. This process involves using water loggers (meters and sub meters) to assess where water is being used on site, volumes used and when it is being used (the last item can be particularly important if there are undetected water leaks). Loggers can be set up so that multiple meters can be read and monitored remotely.

It was identified that a full audit cost between \$5 to \$20K depending on site details. It was also noted that a number of jurisdictions may have some programs to assist in water saving activities, such as Sydney Waters 'every drop counts' program.

The workshop recommended to;

- undertake case study audits on a number of processors (7 sites), noting that some such as A. Raptis and SFM had already fully or partly completed audits
- develop a consistent checklist of items and processes to audit across each case study
- Identify the type and costs of logging equipment available, including maintenance and monitoring
- Identify regional, as well as national, funding for water saving projects and other similar areas
- Undertake a desktop study of any existing programs implemented internationally.
- Collate information on costs and volumes of water input and discharge
- Develop bench mark indicators for water use based on general recommendations which can be adapted and adopted for site specific recommendations.

4.2. Water Discharge Quality

Participants identified that by improving the quality of discharge water from plants, costs associated with disposal could be reduced.

There were discussions around the main waste water issues, these related to;

- the concentration of materials in waste water
- the volume of waste and water being discharged
- biochemical oxygen demand (BOD) measures.

In a number of jurisdictions, discharge is monitored to determine volume and water quality (solids/heavy metals etc) and thereby costs.

It was noted that by reducing water use, without reducing waste material, in the outflow could lead to an increased concentration of 'material' in waste water which could trigger non compliance with environmental levels (i.e. concentration - volume trade-off).

Participants identified that reducing the amounts of solids in the waste could significantly improve waste water quality. This could be achieved by using operational techniques (don't put wastes into the system) and mechanical techniques (solid filters). However, a large problem is that blood and trace elements become dissolved in the waste water as very fine particles and these really need a technological solution to remove them from waste water (purification).

It was noted that many current technological options are cost prohibitive, but if costs associated with disposing of waste water increases these options may become viable.

The workshop recommended;

- undertaking a desktop analysis to assess
 - what technologies are currently available and those in the pipeline
 - water quality standards on a regional basis and what are the levels/cut-offs and costs at each level
 - what are best practice designs for fish processing premises and other similar industries (operational, mechanical and technical)
 - cost benefits of using various operational, mechanical and technological solutions to improve waste water quality compared to using existing systems.
- Undertake an audit at a small number processors (three to four), including a lower technology operations, and apply the desktop learnings to assess possible improvement in waste water quality using operational and mechanical techniques.

4.3. Water Use and Potential for Re-Use/Recycling

Discussions relating to water use identified two major potential freshwater uses;

- Potable water for processing lines, drinking, hand washing, ice making and final machinery and equipment washing.
- Other water that can possibly be used for bin washing, cleanup and general use such as amenities and gardens.

Examples of reusing water were discussed for activities such as using treated processing line water to wash floors and outside, toilet flushing or irrigation.

Participants identified a range of issue with reusing processing water such as;

- Costs involved in treating and storing water for recycling, including land, storage, infrastructure and energy use
- Possible differing standards for water use in different states as well as local requirements
- Lack of understanding at an industry level of current options to treat water
- What cost effective and logistically appropriate technological 'fixes' are likely in the near future
- The need for industry to investigate options to reduce water use from a ecological and community benefit perspective

The workshop recommended;

- undertaking a desktop analysis to assess the above points and an economic cost/benefit analysis of reusing water in operations, including;
 - identifying legislated water quality standards on a regional basis
 - identifying existing technological options – including outside the seafood industry (mining and other industrial uses)
 - likely future technological solutions
 - investigating overseas example, including work done by SeaFish
 - possibility of obtaining freshwater from other sources (rainwater, bores, dams etc)
 - identifying potential uses for recycled water throughout processing facilities
 - costing the real financial costs in reusing processing line water
- applying the desktop learnings to undertake a possible cost/benefits analysis with a small number (two or three sites) of case studies

4.4. Hand Filleting/Shucking Bench

Workshop participants noted that in most instance tables used for filleting fish and shucking oyster have water running continually whilst processing takes place.

A number of organisations and individuals (e.g. SFM and SFS) have been working on prototypes;

- with a view to reducing overall water use
- that are ergonomics
- reduce the chance of injury
- are easy to use
- have a positive impact on productivity
- don't compromise food safety or quality.

Some examples were provided that highlighted that the prototypes could increase shelf life by up to 5 days and this could be increased if chilled water was used in the process.

It was felt that there would be merit in developing a base line design for a table that could be adapted in various circumstances. However, capital and resources were needed to take the process future.

The workshop recommended;

- Developing an agreed baseline designed table
- Trialling 'baseline' benches in a number of factories and retail sites to;
 - bench mark any improvement in water use
 - measure any improved food safety
 - undertake a cost/benefits analysis
- Extend results out to wider industry, possibly through SeaNet
- Commercialise the product.

Attachment 12 Empowering Industry Workshop - Seismic



Empowering Industry¹ Workshop

Understanding Seismic Activity in the Australian Fishing and
Seafood Industry

Monday 15th August 2011. 9.30am – 4.30 pm

Holiday Inn - Melbourne, Victoria

Final Workshop Outcomes

Ian Knuckey and Chris Calogeras

September 2011

Supported by

Fisheries Research Development Corporation

¹ (FRDC project # 2009/300). 'Empowering Industry Research, Development and Extension (RD&E): Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance' (further details at <http://www.empoweringindustry.com>)

1. Introduction

The Fisheries Research and Development Corporation (FRDC) have funded the 'Empowering Industry' project, to assist in increasing industry driven research, development and extension (RD&E) in the fishing and seafood industry'. As part of this project a series of 'themed workshops' have been planned to help address key concerns that have been identified by grass roots fishing and seafood industry people.

During our meetings with fishing and seafood industry over the past years, the impacts of seismic activity on the resource and fishing operations has been raised as one of importance by industry. To assist in addressing this issue, the 'Empowering Industry' project, hosted a multi sector workshop in Melbourne in August 2011.

Participants for the workshop were sought from across the Australian fishing and seafood industry, the oil and gas industry and research institutions.

The workshop focused on scoping RD&E projects that, on a national and regional level, could provide better information to industry about the impacts of seismic activity on the resource and their operations. With assistance through the Empowering Industry project, key priorities and focus areas were identified by participants as a precursor to the development of RD&E projects.

The following agenda was set for the meeting;

- Welcome and Introductions
- Background to the Empowering Industry Process
- Reasons for conducting an RD&E workshop on seismic impacts on fishing
- Brief explanation of seismic surveys methods
- Summary of previous research conducted on seismic impacts on fishing
- Current research proposal on Seismic Activity in SE Australia by UTAS - Institute for Marine & Antarctic Studies
- Identification of National fishing industry perspectives on impacts of seismic activities on fishing/fisheries and areas of potential research
- Information background on potential objectives, methods, jurisdictions and fisheries
- Identification of national fishing Industry RD&E needs and priorities
- Identification of funding opportunities
- Opportunity for modification or augmentation of current UTAS research proposal to reflect broader national industry needs and identification of other industry lead projects.

This document provides a summary of the workshop outcomes.

2. Workshop participants:

A range of participants from industry groups around Australia were invited to the workshop. Final participants were:

Ian Knuckey	Fishwell Consulting (Empowering Industry Project)
Alan Barnett	Alan Barnett Fishing Co
Andrew Levings	Australian Oceanographic Services
Bob Lister	Tasmanian Scallop Fishermen's Association
Brad Milic	AFMA
Chris Calogeras	C-AID Consulting (Empowering Industry Project)
Chris Michel	Commonwealth Department of Resources, Energy and Tourism
Colin Buxton	UTAS - Institute for Marine & Antarctic Studies
Craig Noel	PIRSA Fisheries & Aquaculture
Dan Crookshanks	Origin Energy
Eric Perez	Queensland Seafood Industry Association
Grant Barker	Northern Wildcatch Seafood Australia
Jayson Semmens	UTAS - Institute for Marine & Antarctic Studies
John Hughes	Geophysical Operations (John R Hughes Geophysical Pty Ltd)
Katherine Sarneckis	Chair National Seafood Industry Alliance / CEO NT Seafood Council
Keld Knudsen	Senior Policy Adviser APPEA Association
Louis Hatzimihalis	Scallop fisher - Tas
Natacha Aguilar Soto	University of Auckland
Neil Millar	Origin Energy
Paul Evans	External Affairs Advisor BP Australia Pty Ltd
Randal Owens	Great Barrier Reef Marine Park Authority
Rob Fish	Ocean Alliance
Rob McCauley	Curtin University
Robert Meagher	Origin Energy
Ross Hodge	EO Southern Rock Lobster
Simon Boag	CEO South East Trawl Fishing Industry Association (SETFIA)
Stuart Richey	Richey Fishing Co.

Apologies were received from Crispian Ashby (FRDC) and Ross McGowan (SIV).

3. Background

Workshop participants were provided with a brief overview of seismic survey methodology and a summary of recent projects were outlined by John Hughes, Rob McCauley and Andrew Levings with questions from participants.

This was followed by an overview of the research proposal developed to investigate seismic activity in SE Australia on rock lobster and scallops by Colin Buxton and Jayson Semmens of UTAS - Institute for Marine & Antarctic Studies.

All workshop participants then provided information from a national/regional fishing industry perspectives on impacts of seismic activities on fishing/fisheries and areas of potential research that could assist in identifying national fishing industry RD&E needs and priorities.

4. Key Research Themes

The information gained through these three steps were then used to assess the existing UTAS project and identify if there was an opportunity to modify the project to reflect broader industry needs and if there were any other projects that would assist industry to work with the oil and gas industry.

This process led to the development of two key project themes;

1. Improved processes and policies to minimise impacts of seismic surveys on fishing operations and businesses; and
2. Build on the existing UTAS project to incorporate a desktop study to identify if it was possible to determine impacts of seismic activity on fishing fleet activities.

These projects are scoped below.

4.1. Empowering Industry RD&E: Improved processes and policy to minimise impacts of seismic surveys on fishing operations and businesses

Both the fishing industry and the oil and gas industry recognise that each other has rights to operate their respective businesses in the marine environment and the need to operate as good neighbours. On the water, there is a degree of spatial and/or temporal overlap between oil and gas infrastructure and seismic surveys with established fishing grounds. For this shared access to work well, a high level of respect, cooperation, communication and compromise is required between the two industries.

Although there are a few notable exceptions, many fishing operators in areas of high oil and gas prospectivity report that this does not occur and feel that their businesses are negatively impacted as a result. This issue was highlighted as a priority at the recent Empowering Industry seismic workshop. It was estimated that this project would require in the vicinity of \$75,000 of new funding, but the actual amount required will be determined when the project is more fully developed. It was agreed to scope a project to address this issue, including refining objectives, methodology and budget.

To oversee the establishment of the project, a steering Committee was formed, consisting of Katherine Sarneckis (NTSIA/NTSC), Eric Perez (QSIA), Simon Boag (SETFIA), Brad Milic (AFMA), Keld Knudsen (APPEA), Andrew Levings and an Empowering Industry representative. As an initial step the project will be scoped through the Empowering Industry Project and potential funding sources identified.

Project Objectives

1. Seek to improve processes
 - a. identify industry challenges

- b. identify opportunities and processes for better liaison
 - c. develop capacity for industry input into process
 - d. optimise management (oil and gas) response?
- 2. Seek joint governance models suitable for adoption by decision makers
- 3. Seek processes to minimise impact on fishing operations
 - a. CPUE changes (short and long term) and loss of target catch (eg Commonwealth multi-species)
 - b. Disruption to business (including onshore and staffing issues)
 - i. economic
 - ii. operational.

4.2. Build on the existing UTAS project to incorporate a desktop study to identify if it was possible to determine impacts of seismic activity on fishing fleet activities

The current proposal from IMAS was discussed with respect to broadening the objectives to have greater national relevance. It was understood that partial funding had already been obtained and committed to certain aspects of the project – particularly the investigation of impacts of seismic on survival and physiology of different life stages of rock lobster and scallops. The group supported the project and sought the inclusion of an additional component.

The aspect of the project that was modified to meet further national requirements was to study the influence of seismic activities on commercial catches and catch rates. State and Commonwealth fisheries which operate in areas where seismic surveys are regularly conducted will be identified. Existing logbook metadata from these fisheries will then be assessed to see which have sufficiently high spatial and temporal resolution against which the impact of seismic could be assessed. Based on this preliminary work, a small number of fisheries will be identified as national case-studies for catch and CPUE analyses.

Due to the complex nature of sound transmission through marine environments, each seismic event is different and is heavily influenced by the particular bathymetry and oceanic conditions in the vicinity of the fishery. This technical aspect of the catch and CPUE analyses is a critical and innovative R&D component of the project. Due to this complexity, it was estimated that this aspect of the project would require in the vicinity of \$200,000 of new funding. The project managers will seek these alternate funding sources.

It was recognised that this aspect of the project would benefit from multi-sectorial involvement with project participants from each of the case-study fisheries.

The modified project would be sent out to workshop participants and resubmitted.

Attachment 13 Options Paper FRDC



Options for the Empowering Industry project to improve development of RD&E projects for the fishing / seafood industry and benefit the FRDC funding goals and processes

Through the FRDC, Empowering Industry is offering state Fisheries Research Assessment Boards (FRABs) assistance to identify state-wide sectoral needs in the fishing and seafood industry. It is being provided to facilitate the FRABs in the strategic RD&E planning process.

A test-case FRABs will be

“What is the one thing you need to enhance your industry?”

. This paper is written to clarify some of the issues and deficiencies that we have recognised in the current operation of the Empowering Industry project (Project 2009/300 – ‘Empowering industry R&D: developing an industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance’) and provide some options for FRDC to better benefit from the Empowering Industry network and website.

The success of Empowering Industry I (FRDC Project 2007/304) revolved around working face-to-face with grass-roots industry to take their wide range of industry ideas and develop them into projects that could then be submitted through a variety of funding sources. Over a two year period, this project helped to develop 35 Industry-led projects of which 17 were successfully funded through six funding sources to the tune of > \$1.6million. All of the ‘Empowering Industry’ projects had an industry person as the Principal Investigator or Co-investigator and as such, they helped to build capacity within the broader seafood and fishing Industry. Often these projects addressed immediate industry needs and focussed on the sector, business or entrepreneur level rather than higher strategic RD&E needs.

As part of Empowering Industry II, we were asked to develop a more transparent process by which industry RD&E projects could be identified and linked with the most appropriate RD&E service providers and to have a more cost-effective means of accessing industry RD&E ideas, especially in the recreational and traditional sectors. These two tasks were facilitated through the development of the Empowering Industry website (www.empoweringindustry.com.au).

Importantly, FRDC also requested that Empowering Industry establish a coordinated approach to developing projects that had much more strategic significance at the national



or regional level. This was quite a move away from the approach adopted during Empowering I but we tackled this by filtering ideas submitted on the website and highlighting themes that were continually raised around the country. We then facilitated workshops to develop projects around these issues. To date, these workshops have been:

- To identify potential options for reducing freshwater consumption and discharge from facilities that process fish and seafood—Sydney, March 2010.
- Strengthening Communication in the Fishing and Seafood Industry—Melbourne, April 2010.
- Empowering Family and Small Businesses in the Fishing and Seafood Industry—Perth, May 2010.
- National Fishing Industry RD&E needs on impacts of Seismic Activity—Melbourne, August 2011

A number of projects have subsequently been developed from these workshops including:

- Empowering Industry RD&E: Improving two-way membership communication in peak industry bodies (commercial, recreational and indigenous) of the fishing and seafood industry.
 - Empowering Industry RD&E: Assisting fishing businesses adjust to implementation of quota management in their fishery.
 - Empowering Industry RD&E: Engineering of a generic fish filleting/shucking table to minimise water use, improve product quality and improve OH&S needs
- Empowering Industry RD&E: Improved processes and policy to minimise impacts of seismic surveys on fishing operations and businesses.

Recent evolution of the RD&E planning and funding process at the national level (e.g. National Priorities Forum, National Research Hubs, Research Providers Network, Indigenous Reference Group, allocated national RD&E funding, Nationally coordinated Call for Research Process) and a general improvement of the FRAB process has seen a more coordinated and strategic approach to developing RD&E requirements of the fishing and seafood industry at a high level. There has also been a lot of recent focus and investment in developing strategic RD&E plans and national processes to take these plans and instigate appropriate research. This has resulted in a diminishing (if any) need for the existing Empowering Industry project to work in this space. This process, however, also increases the likelihood that once again, there will be few resources devoted to meeting grass-roots industry needs.

If current project does remain focussed on the strategic national RD&E, it is not clear at all how Empowering Industry now fits into the current process. One way would be for the Empower website to be used for the entire call for Expressions of Interest (EOI) process. Currently, each FRAB has a different method of calling for EOI and there is not a unified



transparent means of inviting RD&E providers to be involved in this process. It was trialled on a voluntary basis last year with the NT, Commonwealth and Queensland FRABs. It cannot be determined how successful this was because a system of monitoring responses to the call for EOI was not in place. That system has now been introduced into the Empowering website so there could be benefits in repeating this process this year for all FRABs.

However, overall, if the project is to remain targeted at pulling together strategic national RD&E, we see little future or benefit for Empowering Industry to continue given the improved processes for developing and funding National, strategic RD&E projects. If this is the case, we believe that it would be best for the Empowering Industry II project to be finalised and any unspent funds be repaid to FRDC.

Along with this there have been a number of other factors impacting on the success of the Empowering Industry Project II, these include;

- No incentives for industry and RD&E provider engagement with the Empowering Industry website. This problem has come about because at the “idea” level we get 100’s of ideas but negligible opportunity to turn these ideas into funded projects. Industry people readily give their ideas to improve industry and businesses and get excited about turning this into reality, but then become disheartened and disengaged from the process when this doesn’t eventuate.
- Problems identifying and linking with funding options outside the FRDC process. During the initial website scoping, we were looking to have a more integrated and seamless website linkage with a range of state and commonwealth funding opportunities using the ANRO website or once all government websites became WEB2.0 compliant. The ANRO website, nor full WEB2.0 compliance has yet eventuated. As an alternative, the Empowering website used a site developed by Dan Machin’s “Australian Seafood Grants” website, which was developed with support from the Aquaculture Council of Western Australia with funding by the Minister for Fisheries and WA Fishing industry Council’s Industry Development Unit. We envisaged that this link would formally occur through project “keywords” but this functionality did not eventuate. This could still occur but would need resources to be achieved.
- The FRDC Tactical Research Fund (TRF), process is being encroached by non-tactical research with little grass-roots support. Since the implementation of the TRF process concerns have been raised regarding the diminution of truly “tactical” research being targeted at this funding source over the years. Many researchers now just treat it as a potential source of funding for “small” research projects, not



necessarily tactical projects. One aspect where the initial approach of Empowering I was quite successful was in highlighting projects at the business/operator level that had immediate application and benefit. We believe that close involvement in the TRF process is where Empowering Industry can again perform a beneficial role and improve on the current situation.

- FRDC and RD&E providers not reaching grass roots. One of the issues highlighted through Empower II was that industry associations and FRDC were having difficulty communicating with grass roots members, the reason being that we are using media (e.g. emails/websites) that are not the tools of choice of a large proportion of industry who prefer face-to-face or phone contact. Use of a website by Empower II only exacerbated this situation. Further, younger people in the industry often use social media such as twitter and Facebook. As such few of the established communication protocols are hitting the desired target.
- Existing RD&E funding processes are still difficult for industry to be actively involved in. Access to all of the funding opportunities requires either a website or other digital application process—tools at which many members of industry are not well acquainted. As a result, people who are experts in applying for funding (e.g. researchers / agencies) are much better equipped to capitalise on research opportunities and projects are therefore less likely to reflect the actual needs of industry. If Industry RD&E ideas are going to receive a higher priority, there needs to be a greater level of support throughout the entire application, management and reporting process.
- Finally, at the business / individual level, there is a significant component of industry RD&E that does not require large research projects to achieve a beneficial outcome. Further, these people feel disenfranchised by the current process and their inability to access funds and expertise to achieve targeted research outcomes for their businesses.

To address these issues the following is provided to FRDC for consideration.

1. Develop an industry 'innovation' grant projects process (<\$20K per project) for up to 20 projects annually (10 for each TRF round);
 - These would effectively replace the minor TRF process
 - Modify the Empowering Industry website to seek and document ideas that would suit the industry grants;
 - Grants would have a lower reporting requirement than existing TRF and EOI processes;
 - Empowering industry will manage the entire process on behalf of the FRDC.



- Facilitate university involvement in industry innovation projects including the involvement of honours and post-graduate students.
- 2. Empowering industry handles the Large TRF application process for the non-commissioned projects with a set maximum amount of overall funding available;
 - Seeks industry lead projects that align with the current TRF requirements through direct stakeholder engagement.
 - Modify the Empowering Industry website to seek and document ideas that would suit non-commissioned TRF projects;
 - Empowering industry will manage the development of projects that would then enter the FRDC TRF process.

We believe that with Option 1 and/or Option 2 above needs to be supported by FRDC if Empowering Industry is to continue. In addition to these, we also need to undertake the following.

- 3. Continue to explore opportunities for funding outside of the FRDC process and improve the mechanisms so that industry partners are actively sought for engagement in these projects. This will include improvement of the funding link of the Empowering Industry website.
- 4. Look to develop a process that will leave a viable longer term legacy with a view to mainstreaming the Empowering site and process into the funding process.

Attachment 14 Vic Project Concept - FRDC Themes

Listing of Victorian industry project ideas within primary FRDC themes.

Ecologically sustainable development (Theme 4)	<ul style="list-style-type: none"> • Investigate use of under used and low value species • Dispersal of Southern Rock Lobster larvae off western Victoria • Development of harvest strategy and devolved management of the Central Victorian Abalone Fishery • Fine scale management of Victoria's central zone Abalone Fishery - Setting appropriate size limits and known where the catch comes from • Assessment of Yellowtail Kingfish stocks in Victoria • Investigate changes to management arrangements for Snapper to create a trophy fishery • Investigation into decline in scallops in southern Port Phillip Bay • Understanding the impacts of fishing in Corio Bay and Corner Inlet • Understanding cause of decreased catches on some reefs in Victoria's Eastern Zone Abalone Fishery • Develop harvest strategy for the Eastern Victorian Sea Urchin Fishery • Understanding the influence of the Bonny Upwelling of local fisheries in western Victoria and eastern South Australia
Governance and regulatory systems (Theme 5)	<ul style="list-style-type: none"> • Management strategy evaluation of reducing the pot limit in Victorian Rock Lobster Fishery • MSE of reduction in maximum pot number allowed in Victorian Rock Lobster Fishery • Devolving management of Gippsland Lakes fisheries • Further development of use of electronic aids to assist with TAC setting in the Victorian Western Zone Abalone Fishery • Restructure of Victorian Scallop Fishery • Moving from permits to fishing licences in the Eastern Victoria Sea Urchin Fishery • Effect of seismic testing on Southern Rock Lobster
Production, growth and profitability (Theme 7)	<ul style="list-style-type: none"> • Reducing cost of production in trout aquaculture • Improving grow out of angasi oyster in Port Phillip Bay • Ranching scallops on Port Phillip Bay sea floor • Sustainable access to seed stock for the Victorian Eel Fishery • Feasibility of installing filleting machine in the Lakes Entrance Fishermen's Co-op Society Ltd
Resource access and allocation (Theme 6)	<ul style="list-style-type: none"> • Improve engagement between Port Phillip Bay commercial fishers and other key stakeholders • Public perception and understanding of Port Phillip Bay Commercial Fishery • Maintaining access to commercial fishing grounds through effective engagement with Port Phillip Bay stakeholders • Updated socio economic assessment of value of recreational fishing in Victoria
Habitat and ecosystem protection (Theme 2)	<ul style="list-style-type: none"> • Decline in seagrass in Corner Inlet and Port Albert • Understanding effect of agricultural and urban run-off on the Gippsland Lakes environment • Decline in seagrass in Corner Inlet

Listing of Queensland industry project ideas within primary FRDC themes.

Ecologically sustainable development (Theme 4)	<ul style="list-style-type: none"> • Suitability of existing management arrangements for grey mackerel in the GoC • Desktop analysis into the reduction of King Salmon availability in the GoC • Sustainable fisheries contributing to the economy • Using science to identify appropriate fishing closures • Improve use of tagging data (game)
Governance and regulatory systems (Theme 5)	<ul style="list-style-type: none"> • Assessing current closures • Improving access to currently restricted areas • Regaining access to yellow and green zones • Reviewing existing zoning scheme • Improving resource access for Qld fishers • Increased security and business profitability through access certainty • Identifying opportunities to increase seafood availability for SE Qld • Minimising administrative costs in the fishing industry • Optimising industry outputs by minimizing unnecessary regulation

	<ul style="list-style-type: none"> Improved stakeholder consultation with recreational fishers in Qld Improving dialogue with Government Improving profitability and management in the Qld mud crab fishery Improving representation in the Queensland Seafood Industry Improved representation and reduced netting Representation and reduced netting Accreditation for spearfishing in Aust - development of on-line learning - comparison of risk between accredited and non- accredited divers Reduced illegal fishing activity - catching and selling
Consumers, products and markets (Theme 8)	<ul style="list-style-type: none"> Improving the oyster industry in Qld - Marketing of Sydney Rock Oysters (SRO) Improving industry security and profitability
Leadership development (Theme 11)	<ul style="list-style-type: none"> Acknowledgment of varied forms of industry representation Improved communication between fishers and government Improving decision making processes to best reflect industry needs. Increased industry confidence and innovation through improved representation
Production, growth and profitability (Theme 7)	<ul style="list-style-type: none"> Improving production of redclaw in Qld Improving the oyster industry in Qld - improved spat supply of Sydney Rock Oysters (SRO) Improving the oyster industry in Qld - growing Pacific Oyster in Qld Removing soft mud crabs from the market Promoting profitability in the Qld trawl fishery - a holistic value-chain approach Improving profitability through efficiency and reduced costs
Resilient and supportive communities (Theme 10)	<ul style="list-style-type: none"> Improving public sentiment towards the commercial sector in Moreton Bay to increase fishing opportunities Improving the image of commercial fishers in the media
Value from aquatic resources (Theme 9)	<ul style="list-style-type: none"> Development of a creditable and accepted data to substantiate the economic and social values of recreational freshwater fish Assessing the merit of recreational licences and regional closures Valuing the recreational fishing sector Using recreational fishing licences to improve the recreational fishing experience Socio-economic analysis of spearfishing in Australia

Table 1. Common Queensland industry project ideas which had multiple projects.

Closure, Access, Zoning (9 concepts)	<ul style="list-style-type: none"> Assess appropriateness of closures and identify opportunities for improved access <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Resilient and supportive communities (Theme 10) Production, growth and profitability (Theme 7) Value from aquatic resources (Theme 9) Ecologically sustainable development (Theme 4)
Representation, dialogue (8 projects)	<ul style="list-style-type: none"> Improving representation and communication between stakeholders <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Leadership development (Theme 11) Resource access and allocation (Theme 6) Leadership and decision making <ul style="list-style-type: none"> Leadership development (Theme 11)
Reducing regulatory burdens (5 concepts)	<ul style="list-style-type: none"> Minor use permits, administration costs and discharges <ul style="list-style-type: none"> Governance and regulatory systems (Theme 5) Biosecurity and aquatic animal health (Theme 1) Production, growth and profitability (Theme 7)
Valuing and understanding sectors (5 projects)	<ul style="list-style-type: none"> Socio economic value and licensing for recreational sector <ul style="list-style-type: none"> Value from aquatic resources (Theme 9) Production, growth and profitability (Theme 7) Resilient and supportive communities (Theme 10)
Image and media (4 concepts)	<ul style="list-style-type: none"> Improve public perception of commercial fishing and spearfishing <ul style="list-style-type: none"> Resilient and supportive communities (Theme 10) Leadership development (Theme 11)

It is anticipated that direct data collection and entering onto the site cost around \$10,000 for the Victorian component and \$14,000 for the Qld sectors. This cost could be reduced over time if this process became a formal part of the jurisdictional FRAB process, as this time around resources were committed to identifying who is still operating, as well as explaining and developing trust with industry members for the process.

Case study findings will be presented at the FRDC annual FRAB workshop on 9 April 2014.

INTELLECTUAL PROPERTY ISSUES ARISING:

No issues have been identified at this time.

PUBLICATIONS OR MEDIA REPORTS:

There was no media during this stage.

VARIATIONS TO PROJECT:

No further variations.



Ian Knuckey
Principal Investigator

Attachment 15 One Page Summary of Project Idea – Example

Title Improving production of redclaw in Qld

Objectives

Increased production. New industry entrants whose intention is to be serious farmers not hobbyists . Recognition by governments and semi government bodies that redclaw farming has the competence to occupy a space as a serious contender in the a

Need

The industry has made significant steps forward over the last six years with the support of RIRDC. Dramatic research results have been achieved leading to innovative advances in farming practices which have yet to be translated into an increase in production

Desired Outcome

Increased production. Actively promote the industry as being a good place to be. Holding events to promote advances made possible by recent research projects and innovations. Continuation of research effort. Workshops to showcase best practices and up to date farming methods. More farmers adopting efficient practices means a stronger industry. Industry growth would be self propagating as successful farms visibly demonstrate that redclaw farming is a viable business. More production would allow exploitation of hitherto unexplored markets, raising the profile of the product. Clarification of the grey areas of redclaw farming is still necessary to ensure a vibrant industry.

FRDC Themes

Production, growth and profitability	Consumers, products and markets
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Keywords

redclaw, promotion, best practice, production

Contact Person:

John Stevenson - President Queensland Crayfish Farmers Association Inc
401692601
jhstevo@bigpond.com

Title Accreditation for spearfishing in Australia - development of on-line learning and comparison of risk between accredited and non-accredited divers

Objectives

Develop online learning modules to be used to a National spearfishing accreditation scheme. Undertake risk assessment of spear fishers that do and do not have accreditation in relation to interactions with vulnerable or protected species and safety to

Need

Currently, spearfishing equipment can be bought and used by anyone, and those new to the sport can sometime use this equipment irresponsibly. Examples of irresponsible behaviour can include catching vulnerable or protected fish, catching fish that will not be eaten, causing injury to themselves or causing injuries to others. Often these acts are carried out in areas frequented by the general public which can tarnish the public perception of the sport - the actions of an irresponsible few can have implications for the wider spearfishing community. This can lead to marginalisation including loss of access to fishing grounds. Online learning would facilitate education of inexperienced spear fishers in line with existing codes of conduct, while accreditation would demonstrate that the spear fisher had undertaken this training. Assessment of risk of accredited divers would provide confidence in the potential impact of those divers for sustainability and public safety, and may help to maintain or improve access to fishing grounds such as those in multi-use marine parks.

Desired Outcome

An online learning facility that provides different levels of training to spearfishing in line with a National accreditation scheme. A understanding of the relative risks of spear fishers that do and do not have accreditation in relation to interactions with vulnerable or protected species and safety to themselves and others. Benefit is to maintain and/or increase access. Production of on-line truing modules Risk assessment

FRDC Themes

Governance and regulatory systems	Resource access and allocation
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Keywords

spearfishing, risk assessment, education, on-line learning

Contact Person:

Adrian Wayne
0418 282 696 adrian.wayne48@gmail.com

Attachment 16 Qld Project Concept - FRDC Themes

Listing of Queensland industry project ideas within primary FRDC themes.

Ecologically sustainable development (Theme 4)	<ul style="list-style-type: none"> • Suitability of existing management arrangements for grey mackerel in the GoC • Desktop analysis into the reduction of King Salmon availability in the GoC • Sustainable fisheries contributing to the economy • Using science to identify appropriate fishing closures • Improve use of tagging data (game)
Governance and regulatory systems (Theme 5)	<ul style="list-style-type: none"> • Assessing current closures • Improving access to currently restricted areas • Regaining access to yellow and green zones • Reviewing existing zoning scheme • Improving resource access for Qld fishers • Increased security and business profitability through access certainty • Identifying opportunities to increase seafood availability for SE Qld • Minimising administrative costs in the fishing industry • Optimising industry outputs by minimizing unnecessary regulation • Improved stakeholder consultation with recreational fishers in Qld • Improving dialogue with Government • Improving profitability and management in the Qld mud crab fishery • Improving representation in the Queensland Seafood Industry • Improved representation and reduced netting • Representation and reduced netting • Accreditation for spearfishing in Aust - development of on-line learning - comparison of risk between accredited and non- accredited divers • Reduced illegal fishing activity - catching and selling
Consumers, products and markets (Theme 8)	<ul style="list-style-type: none"> • Improving the oyster industry in Qld - Marketing of Sydney Rock Oysters (SRO) • Improving industry security and profitability
Leadership development (Theme 11)	<ul style="list-style-type: none"> • Acknowledgment of varied forms of industry representation • Improved communication between fishers and government • Improving decision making processes to best reflect industry needs. • Increased industry confidence and innovation through improved representation
Production, growth and profitability (Theme 7)	<ul style="list-style-type: none"> • Improving production of redclaw in Qld • Improving the oyster industry in Qld - improved spat supply of Sydney Rock Oysters (SRO) • Improving the oyster industry in Qld - growing Pacific Oyster in Qld • Removing soft mud crabs from the market • Promoting profitability in the Qld trawl fishery - a holistic value-chain approach • Improving profitability through efficiency and reduced costs
Resilient and supportive communities (Theme 10)	<ul style="list-style-type: none"> • Improving public sentiment towards the commercial sector in Moreton Bay to increase fishing opportunities • Improving the image of commercial fishers in the media
Value from aquatic resources (Theme 9)	<ul style="list-style-type: none"> • Development of a creditable and accepted data to substantiate the economic and social values of recreational freshwater fish • Assessing the merit of recreational licences and regional closures • Valuing the recreational fishing sector • Using recreational fishing licences to improve the recreational fishing experience • Socio-economic analysis of spearfishing in Australia

Attachment 17 Sample of Empowering II Media and Extension



Sydney Fish Market's first ever *For the Love of Seafood* Festival to be held on Saturday, 31 October.



Just some of the delicious fare that attendees can expect at *For the Love of Seafood*.

SFM's *For The Love of Seafood* Festival Only Days Away

The countdown has begun and Sydney Fish Market (SFM) is buzzing as it gears up for the first ever *For the Love of Seafood* Festival on Saturday, 31 October from 11am until 3pm.

The festival promises to be an extravaganza not to be missed, so be sure to come along and join SFM in celebrating the great variety, versatility and quality of Australian seafood.

The festival aims to entice foodies, families and seafood lovers with a rainbow of food stalls hosted by some of our onsite retailers, a three-piece jazz band, free face painting for the kids, giveaways throughout the day and an impressive line-up of entertainment hosted by the energetic multi-award winning communicator, author, teacher and presenter on all things gastronomic - **Lyndey Milan**.

If you have ever wondered what to look for in an Oyster, how to cook the perfect seafood dish, or what commercial fishers actually do while you are sleeping, then this is the perfect event for you.

The entertainment line-up also includes the **Chef Challenge**, an energised cooking competition between Sydney chef extraordinaire Greg Anderson from *Sugaroom* in Pyrmont and his leading apprentice Kristle Page.

The **Oyster Appreciation** session is a must for those wishing to learn how to select, prepare and match delicious oysters with tantalising accompaniments, with four lucky participants selected from the audience to participate in a tasting panel.

The **Get Fresh with Fish** seafood cooking demonstration will show the audience how to prepare a simple and delicious recipe using a lesser known Australian fish.

Fish Tales interviews with food experts and fishermen will cover a range of topical issues, such as sustainability, food culture and life as a fisherman.

When: 11am - 3pm on Saturday, 31 October 2009

Where: Sydney Fish Market, Bank Street, Pyrmont

General Admission: Free Event

Getting to SFM: Metro Light Rail is the best way of getting to SFM for the festival - hop off at the Sydney Fish Market stop. If driving, normal car park rates will apply.

Sydney Fish Market (SFM) is a short 5 minute stroll from Darling Harbour and a 20 minute walk from Town Hall station.

The 501 bus service departs from the corner of George and Bathurst Streets in the city every half hour and drops customers at the corner of Harris and Pyrmont Bridge Road (3 minutes from SFM). The 443 bus service departs from outside Queen Victoria Building every half hour and drops customers at the corner of Harris and Pyrmont Bridge Road.

Sydney Fish Market is easily accessible by boat. Simply go into Blackwattle Bay. Casual berthing is available on the pontoon wharf for a maximum of two hours.

Held as part of the Sydney International Food Festival, this Sydney Fish Market event is proudly sponsored by Industry & Investment NSW, Huon Aquaculture Group, Fishermen's Wharf Seafood Restaurant, Cleanseas, Christie's Seafoods, Net & Tackle Sales and Fisheries Research & Development Corporation.

For more information and a full program of events visit <http://www.sydneyfishmarket.com.au/>.

OceanWatch Australia Making Waves

As part of its ongoing Tide to Table program, OceanWatch Australia (OWA) has recently launched a new project focused on Sydney's famous Botany Bay region.

Tide to Table, established in 2004, attempts to find real 'on-ground' solutions to improve water quality, rehabilitate fish habitat and help build resilience in the marine environment.

This new Botany Bay initiative will focus on monitoring sites in and around the bay to complement the



An enthusiastic community group display their artwork themed around fish habitat and the environment.

existing 'River Health Project' established by the Georges River Combined Councils Committee. The aim of this project is to collate data with the intention of producing a report card on river health in the area, as well as encourage individuals, groups and government bodies to take ownership of these important resources.

OWA and the Federal Government consider Botany Bay to be an aquatic hot spot with areas of national significance relating to biodiversity and culture. The region's mangrove, saltmarsh and seagrass areas are also vitally important marine ecosystems, containing over 90% of Sydney's estuarine environments.

Tide to Table is also making a splash at Sydney Fish Market (SFM) in November with an art exhibition. *Fishy Tales* will showcase artwork themed around 'fish habitat and the environment'. There will be a large selection of artworks on display including rich fabric tapestries, indigenous community works, paintings, sculptures and selected pieces from the 2009 WetlandCare Australia National Art Competition.

This free exhibition will take place at SFM between 11am - 3pm on Friday, 20 November and Saturday, 21 November 2009.

Tide to Table is supported by the Australian Government's 'Caring for our Country' funding grant.

APPLICATIONS

Another application to the NSW Recreational Fishing Trust for work on the Hastings River around Big Bay has been submitted.

Unfortunately an application to launch a new, nationally focused waterway rehabilitation project called 'King Tide' submitted to Federal Government was unsuccessful under the last round of Caring for our Country. OWA will resubmit this application in early 2010.

For further information about OWA and its projects please contact Simon Rowe, Aquatic Habitat Rehabilitation Program Manager on (02) 9660 2262.

For more information on OceanWatch Australia visit <http://www.oceanwatch.org.au/>.



Sydney Seafood School's newly refurbished auditorium.

Sydney Seafood School Unwraps Its 20th Anniversary Present

Following a 3 month refurbishment, the input of some industry-leading experts, and plenty of blood, sweat and tears by hard-working staff, the Sydney Seafood School (SSS) celebrates its 20th anniversary in November 2009 with a relaunch of its newly upgraded facility and an astounding line-up of classes.

Designed by renowned restaurant architect Michael McCann, the School has received an impressive makeover complete with cutting-edge fit out.

The School's hands-on kitchen now features custom-made, stainless steel cooking islands containing state-of-the-art Fisher & Paykel Izone appliances. The 'CookSurface' is a frameless rectangular black glass cook top with three gas burners that rise and retract as needed. The 'CoolDrawer' is the world's first multi-temperature fridge drawer and includes a choice of five specifically-designed temperatures for storing various foods chilled or frozen. The 'VentSurface' features the first intuitive sensor extraction system that automatically activates to extract smoke and steam as soon as cooking commences.

Beefeater Barbecues have also come to the 20th Anniversary party, providing five built-in 5-burner gas barbecues for the School's most popular class, Seafood Barbecue. German company Hettich have supplied their full extension InnoTech drawers, complete with sensys hinges and heavy duty runners, all with soft close dampening, to ensure cabinets open and close smoothly and silently.

Meanwhile, in the demonstration kitchen, the overhead mirror above the bench has been replaced by cameras and four 46" Sharp High Definition LCD television screens, providing an uninterrupted view of all the action on the cooking bench.

Accompanying the School's exciting new technology are some breathtaking artistic features. From the stunning sandstone feature wall at the entrance, through the Icelandic fish leather lining the auditorium, to the wild 'blackboard graffiti' of artist Joy Godley on the hands-on kitchen walls. Rich oak wood panelling, a Madagascan limestone bench-top full of gorgeous fossils, sleek stainless steel and lots of glass complete the stunning transformation of what was already one of Australia's premier cooking schools.

"We're very excited about offering our guests a beautiful new School equipped with the latest equipment," said Roberta Muir, Sydney Seafood School Manager.

"We're feeling pretty spoiled and can't wait to share our new school with the public. Grab a program, book a class and be among the first to see the beautiful new Sydney Seafood School."

It's great to celebrate a special birthday with good friends, and Sydney Seafood School seems to have plenty of friends who want to share in the celebrations. The 20th anniversary program which runs from November to February reads like a role call of Australian culinary royalty. Industry heavyweights such as David Thompson, Cheong Liew, Tetsuya Wakuda, Neil Perry, Janni Kyritsis, Justin North, Lauren Murdoch, Matthew Moran, Guillaume Brahimi, Peter Gilmore, Christine Manfield, Peter Kuruvita, Peter Doyle, Mark Best and Mark Jensen will all make their way down to the School over the next 4 months to conduct classes in celebration of the School's 20 years of service.

Sydney Seafood School held its first class on 31 October, 1989 (Microwaving with Seafood, 4 x 2 hour classes over 4 weeks for \$60). It was a purpose built teaching facility with a mission to show Sydneysiders how easy it is to prepare a wide variety of seafood species at home, thus generating demand for lesser known species of seafood. Over 12,000 people now attend the School each year to enjoy classes such as Seafood Barbecue, Thai, Salt & Pepper Prawns, Tapas, Paella, Chilli Crab and Quick'n' Delicious.

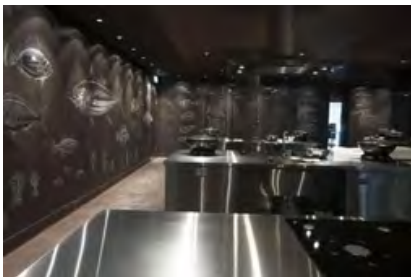
For further information on upcoming Sydney Seafood School classes or to make a booking visit <http://www.sydneyfishmarket.com.au/> or call (02) 9004 1111.

Gift certificates are also available for any dollar-value, valid for 12 months, and can be ordered and printed immediately from <http://www.sydneyfishmarket.com.au/> or ordered over the phone and sent in the post.

Market Pride® - Serving It Up

The Market Pride® team have been busy hitting the promotion trail over the month of September, showcasing Sydney Fish Market's range of premium, value-added seafood products to members of the seafood and food service industries as well as the general public.

Market Pride® has been featured and tasted at various events in September, including Fine Food



Fish art and fantastic new appliances and benchtops are featured in the School's hands-on kitchen.



One of the first classes held at the newly refurbished Sydney Seafood School.



The Market Pride® team at Fine Food Sydney.

Sydney, the Better Choice Seafood Expo and the 2009 Club Food & Beverage Summit. At each of these events, attendees have been given the opportunity to sample the Market Pride® range, including Mediterranean Seafood Hot Pot, Fish Stock, Seafood Laksa, Seafood Chowder - New England Style, Silver Warehouse & Atlantic Salmon Fish Cakes, Atlantic Salmon & Silver Warehouse Sausages and Szechuan Pepper & Salt Squid.

Fine Food Sydney, Australia's largest food service, retail and hospitality trade show, was held between 7 - 10 September at the Exhibition and Convention Centre, Darling Harbour. Over 1,000 exhibitors were on site to showcase their products, filling all six halls of the complex, with Market Pride® front and centre to greet the 25,000 industry visitors who attended the event.

Market Pride's presence at the trade show signalled the brand's launch into the Food Service category. Providing the perfect forum to showcase the range to an important market, Market Pride® was given a further promotional boost when it was announced as a finalist in the 'Best New Food Product for Food Service' category for its Silver Warehouse & Atlantic Salmon Fish Cakes in the Fine Food Awards.

Also taking place during the month of September was the 2009 Club Food & Beverage Summit. Attended by more than 120 delegates from major clubs and pubs around Australia, the event brought together a unique panel of experts who hosted educational and professional development sessions covering a wide range of topics relevant to food and beverage management. Market Pride® secured the opportunity to prepare a nine course seafood meal for delegates, with Business Manager Michelle Christoe delivering a presentation on the innovative development of SFM's new range and how it can be implemented into the menus of pubs and clubs.

On the back of the success at Fine Food Sydney and the 2009 Club Food & Beverage Summit, Market Pride® headed to Wollongong on Tuesday, 29 September for the Better Choice Fisheries Seafood Expo. As one of 22 exhibitors, Market Pride® showcased its product range amongst other industry leading organisations from around Australia and overseas. A mix of representatives from the retail and food service industries were on hand to sample Market Pride's Seafood Laksa, Silver Warehouse & Atlantic Salmon Fish Cakes and Atlantic Salmon & Silver Warehouse Sausages, with overwhelmingly positive feedback received.

Earlier in the month, Michelle Christoe and Mark Boulter, SFM's Quality, Safety & Environment Manager were given the opportunity to speak to delegates from across Australia at a Seafood Services Australia network meeting held at Sydney Fish Market. The topic of discussion was the processes involved in the product and market development of value-added seafood products. Serving Market Pride® Seafood Chowder - New England Style as an entrée followed by Silver Warehouse & Atlantic Fish Cakes as a main, the products were extremely well received by members of industry.

"These events have proven to be a great opportunity to meet key buyers, industry stakeholders and executive chefs to showcase Market Pride®," said Michelle Christoe, Market Pride® Business Manager. "They've allowed us to further build awareness of the Market Pride® range and provided an opportunity for the team to talk one-on-one with industry as well as build relationships with potential buyers."

Market Pride® is available in select retail outlets throughout New South Wales, Queensland and Victoria. The range has also recently become available in selected Harris Farm, IGA & Thomas Dux Supermarkets. For a full list of retail outlets where Market Pride® can be found, visit <http://www.marketpride.com.au/>.



The *Empower II* project focuses on improving value to each sector of the seafood industry.

New 3 Year Project to Empower Industry

Fisheries Research and Development Corporation (FRDC) are once again supporting industry with funding for a new three year project with the aim of gathering Research, Development & Extension (RD&E) ideas from seafood and fishing industry stakeholders on a regional and national scale.

A trial project undertaken in 2007/08 and funded by FRDC, titled "Empowering stakeholders to initiate and advance R&D projects in the seafood industry" highlighted the need for investment in new RD&E initiatives driven by industry stakeholders which best meet their specific needs. The project sought to determine grass-roots R&D needs (at the industry, company or association level) and match them with relevant service providers and potential funding sources.

The project proved an overwhelming success in generating industry-focused RD&E, leading to 35 projects being developed. Sixteen of these projects, worth over \$1.3 million, were successfully funded.

The new project, *Empowering Industry II*, aims to act as a mechanism to deliver a similar service to the broader seafood and fishing industry on an ongoing basis. The focus is on improving 'value' to the seafood industry by taking into account each sector's needs, including characteristics such as efficiency, profitability and performance as well as social aspects such as enjoyment, wellbeing, amenity and cultural needs.

The first stage of the project involves gathering individuals' ideas through a series of regional meetings held around Australia. Industry members are invited to share their thoughts and ideas on how to improve their operations, and those of industry as a whole. These ideas will lead to the development of national and regional industry-focused RD&E needs. In partnership with industry, projects can then be developed which link these needs to suitable RD&E service providers, utilising a range of potential funding sources.

The project, led by Co-Investigators Ian Knuckey of *Fishwell Consulting* and Chris Calogeras of *C-AID Consultants*, will be executed in 5 stages as follows:

1. Engaging with industry
2. Identification of national and regional industry RD&E priorities
3. Identifying and grouping industry RD&E priorities
4. Transparent process to link potential projects to service providers
5. Model for developing and managing industry focused RD&E

A broad network of people will be used to access grass roots RD&E ideas and assist in project development. This network will be derived from a range of industry groups, including graduates from the National Seafood Industry Leadership Program (NSILP) and the Australian Rural Leadership Program (ARLP), SeaNet Officers, FishCare Volunteers, and members of the Women's Industry Network Seafood Community (WINSC).

"This project provides a fantastic opportunity for Industry members, from all along the supply chain, to develop projects that address their needs and help shape future RD&E in the fishing and seafood industry," said Chris Calogeras, Industry Consultant and *Empowering Industry II* Project Co-Investigator.

Having already been held in Darwin, Perth and Tasmania, further workshops as part of the *Empower II* project are proposed for Victoria (5 - 6 November), Queensland (23 - 25 November), New South Wales (25 - 27 November) and South Australia (7 - 10 December).

For further information on this project, visit www.fishwell.com.au/Empowering/empoweringindustry.aspx or contact Ian Knuckey at Fishwell Consultants on (03) 5258 4399 or fishwell@datafast.net.au.



Empowering recreational fishing industry Research, Development and Extension

Recfishwest is pleased to be involved with and to support the "Empowering fishing industry research, development and extension" (RD&E) project by Fishwell Consulting.

Recfishwest received a briefing on the project and provided feedback at a meeting with Dr Ian Knuckey of Fishwell Consulting and Chris Calogeras of C-AID Consultants on 30 September 2009

Chris has kindly supplied copies of the presentation slides and the feedback sheet for use by recreational fishermen to feed their ideas into the research, development and extension project.

Information sought to help with the development of the projects includes

- What is your type or field of recreational fishing,
- What could be done to increase the 'value' to you of your fishing experience,
- How this would improve your experience, and
- What type of help do you think you need to make this happen.

More details are in [Summary, workshop timetable and contact details](#) ³ (1,028 kilobyte PDF file)

[Recreational fishing ideas feedback sheet](#) ⁴ (46 kilobyte PDF file)

and the following links:-

[Explanatory slides from Empowering Industry RD&E workshop](#) ⁵ (3,019 kilobyte PDF file)

[Empowering Industry website](#) ⁶  ⁷ (link opens in a new window)

[Empowering Industry RD&E Project Summary](#) ⁸  ⁷ (link opens in a new window)

[Project Development and Linking Process - Empowering II](#) ⁹  ⁷ (link opens in a new window)

[Project Outcomes - Empowering I](#) ¹⁰  ⁷ (link opens in a new window)

[Fishwell Consulting website](#) ¹¹  ⁷ (link opens in a new window)

[C-AID Consultants website](#) ¹²  ⁷ (link opens in a new window)

This page prepared on 9 October 2009.

Links on this webpage

1. <http://www.recfishwest.org.au/WhatsNew.htm>
2. <http://www.recfishwest.org.au/Search.htm>
3. <http://www.recfishwest.org.au/EmpoweringIndustryOnePage.pdf>

What's New

What's new on this site since you last looked?

See [What's New](#) ¹ for the full list of changes or [Search](#) ² for words or phrases

4. <http://www.recfishwest.org.au/EmpowerIdeaSheetRecreational.pdf>
5. <http://www.recfishwest.org.au/EmpoweringIndustryWorkshop.pdf>
6. <http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>
7. mhtml:file://C:\Documents and Settings\User\Desktop\Empowering recreational fishing research, development and extension.mht!http://www.recfishwest.org.au/NewWindowIcon.jpg
8. http://www.fishwell.com.au/app_cmslib/media/lib/0909/m2241_v1_empowering_ii_project_summary_pdf.pdf
9. http://www.fishwell.com.au/app_cmslib/media/lib/0909/m2198_v1_empowering_ii_linking_projects_pdf.pdf
10. http://www.fishwell.com.au/app_cmslib/media/lib/0909/m2417_v1_empoweringindustryiprojectoucomes.pdf
11. <http://www.fishwell.com.au/default.aspx>
12. <http://www.c-aid.com.au/>

Recfishwest

Western Australian Recreational
and Sportfishing Council Inc.

Trading as ***Recfishwest***

ABN 77 922 817 608

PO Box 34,

North Beach,

Western Australia, 6920

Tel (08) 9246 3366

Fax (08) 9246 5955

recfish@recfishwest.org.au

More information: Chris Calogeras, C-AID Consultants, 0401 692 601, info@c-aid.com.au;
Ian Knuckey, Fishwell Consulting, 0408 581 599, fishwell@datafast.net.au

'Grassroots' ideas harvested in RD&E mission

The success of a pilot program to gather 'grassroots' research and development ideas has led to a new project, which aims to both broaden the initial work and create an ongoing means for industry to address its research, development and extension (RD&E) needs.

The FRDC-funded 'Empowering Industry' project follows on from a project (FRDC 2007/304) run during 2007 and 2008, which saw Ian Knuckey, Paul McShane and Chris Calogeras meet with industry people from across Australia, discover their 'grassroots' R&D needs, and match them with an expanded base of service providers and funding sources. The pilot was successful in generating a wide range of industry-focused R&D, with 16 projects, worth more than \$1.3 million, supported.

Chris Calogeras says that based on that success, and with encouragement from industry, developing a mechanism to deliver a similar service to the broader seafood and fishing industry on an ongoing basis was deemed a model worth developing.

With that in mind, the FRDC supported the project's next stage – 'Empowering Industry RD&E: Developing an industry-driven RD&E model for the Australian fishing and seafood industry – partnerships to improve efficiency, profitability and performance' (2009/300).

Ian Knuckey says the project's aims are simple: to gather RD&E ideas from across all industry sectors, develop project partnerships between industry, link them with the most suitable RD&E providers and explore a range of funding sources beyond the FRDC. Importantly, the RD&E focus is on improving 'value' to industry, taking into account varying individual and sectoral needs, including efficiency, profitability and performance, as well as other characteristics, such as social aspects, enjoyment, wellbeing, amenity and cultural needs. To achieve this, the project will:

- re-engage with all sectors of industry;
- identify national and regional industry RD&E needs;

- identify and group industry RD&E priorities;
- build a transparent process to link potential projects to service providers and funders; and
- build a model for developing and managing industry-focused RD&E.

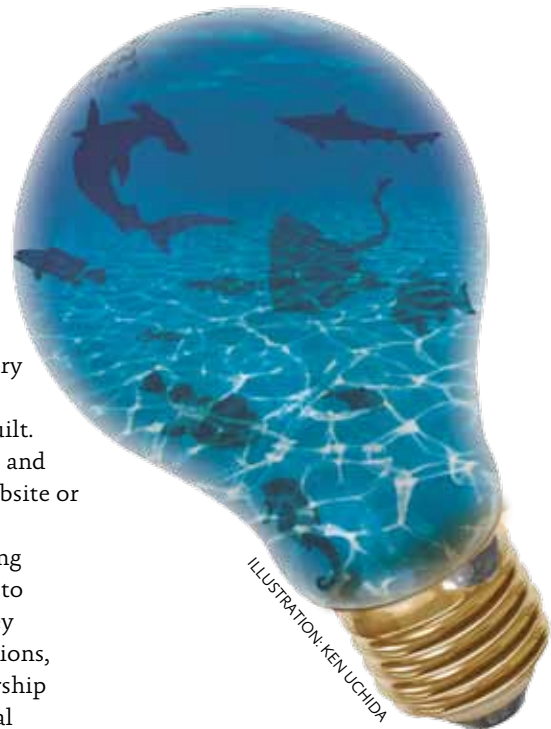
A web-based system to link industry needs with research providers and potential funding sources has been built. The idea is to capture grassroots ideas and put them into the system – via the website or by faxing in a simple one-page form.

The project also aims to use existing networks to find industry facilitators to spread the word and gather ideas. They include people from industry associations, the National Seafood Industry Leadership Program (NSILP), the Australian Rural Leadership Program (ARLP), SeaNet, FishCare, indigenous ranger groups and the Women's Industry Network Seafood Community (WINSO). "We hope these people will become part of a larger group of 'disciples' who will spread the message and act as a conduit for industry-focused RD&E," Chris Calogeras says.

Ian Knuckey says that following 50 meetings across the country during 2009, about 200 industry concepts, with noticeable synergies, have been identified across sectors and jurisdictions. A number of sector, region or individual concepts have also been identified.

The next step is to run themed workshops, which will bring similar RD&E ideas together, discussed and specific RD&E projects developed. These workshops will begin in March (see www.empoweringindustry.com for more details).

Chris Calogeras says reducing fresh water use is a topic that has already been raised by nearly all processors that he and Ian Knuckey have met. "Reducing water use in processing operations is just one of the RD&E needs raised by industry, but one that if successfully addressed, would have important and immediate effects – economically and environmentally," he says. **F**



If you have an RD&E idea that would add value to your business or the seafood/fishing industry, please contact the Empowering Industry project team.

Contact: www.empoweringindustry.com

KEY POINTS

- The empowering industry pilot project (FRDC 2007/304) exceeded expectations. It was successful in generating a wide range of industry-focused R&D, with 16 projects, worth more than \$1.3 million, supported through a range of funding providers.
- Based on that success, and with encouragement from industry, the original team is developing a mechanism to deliver a similar service to the broader seafood and fishing industry on an ongoing basis.
- The FRDC has supported this next stage, 'Empowering Industry RD&E: Developing an industry-driven RD&E model for the Australian fishing and seafood industry – partnerships to improve efficiency, profitability and performance' (FRDC 2009/300).

Empowering Industry R, D & E Workshop

Strengthening Membership Communication and Support in Peak Industry Bodies in the Australian Fishing and Seafood Industry

Tuesday 13th April 2010. 12.00 – 4.30 pm
Boardroom @ the Sebel Albert Park, Melbourne, Victoria

The Fisheries Research and Development Corporation (FRDC) have funded the 'Empowering Industry' project, to assist in increasing industry driven research, development and extension (RD&E) in the fishing and seafood industry¹. As part of this project a series of workshops have been planned to help address key concerns that have been identified by grass roots fishing and seafood industry people. During our meetings with industry over the past years, maintaining lines of communication and improving the connection between peak, or representative, bodies and their members has repeatedly been raised as one of importance by all sectors in the fishing and seafood industry.

To assist in addressing this issue, the Empowering Industry project, is hosting a "Themed Workshop" to scope RD&E projects that can help peak or representative bodies, involved in the fishing and seafood industry, to improve the lines of communication between themselves and their constituents (i.e. two way communication - bottom up and top down). Participants in the workshop come from a wide range of the Australian fishing and seafood Industry.

To help focus the workshop we are lucky enough to have Sally Branson, who has extensive experience and skills working in the media, public affairs management, communication and relationship building. Some of her roles have included working as a media affairs specialist for the US Consulate General, communication officer for the Murray Catch Management Authority and as a Regional Liaison Officer for the Victorian Leader of the Opposition.

As a preliminary agenda we plan to have discussion and sessions around the following issues;

- Outline the Empowering Industry Process
- Gain an understanding of the current status of communication in industry bodies
- Identify existing communication processes and their levels of success
- Identify communication requirements
- Identify ideas that may help address the problems
- Make use of communication expertise to outline potential solutions
- Development/scope a project(s) that could improve 2-way communication in the industry.

We look forward to your participation in the workshop. If you have any further queries on workshop logistics please contact Tanya Hughes on 03 90127683 or Ian or Chris.

Regards

Ian and Chris

Ian Knuckey	Fishwell Consulting	Tel: 0408 581 599	Email: fishwell@datafast.net.au
Chris Calogeras	C-AID Consultants	Tel: 0401692601	Email: info@c-aid.com.au

¹ (<http://www.fishwell.com.au/Empowering/empoweringindustry.aspx>. for more details on (FRDC project # 2009/300). 'Empowering Industry RD&E: Developing an Industry driven RD&E model for the Australian fishing and seafood Industry - partnerships to improve efficiency, profitability and performance'



Following the organisational review commissioned by WAFIC in 2013 and the subsequent recommendations flowing from that review the WAFIC Board has chartered a new course for the organisation. This includes a most important narrowing of focus and relinquishing some roles previously undertaken.

Much of this has to do with the need for WAFIC to ensure that whatever it does it does well and, in a highly professional manner. That is not possible when we try to achieve many things and spread our limited resources across the ground too thinly.

The Board has decided that the focus of WAFIC will be on the following key areas: resource access; community acceptance (social licence to operate); and communications including key stakeholder engagement.

To achieve this the Board has approved a restructure of the organisation (see CEO memo 12 March) and this has seen the following changes. The Research Development and Extension (R, D & E) Unit has been disbanded: the two positions within that unit have been made redundant; and the WAFIC R, D & E sub-committee dissolved until further notice.

As a result of these changes WAFIC no longer has a direct or hands-on involvement with R, D & E projects, i.e., we will not be doing the research work. We will however still be the funnel for R, D & E ideas and needs to ensure that these do get considered and included in R, D & E planning processes and consideration by research providers and managers.

To achieve this we recommend that R, D & E ideas and initiatives are provided to WAFIC through a number of options including: the Annual Management Meetings run by WAFIC's Industry Consultation Unit; your Sector Peak Body; via email to reception@wafic.org.au; and the Fisheries Research and Development Corporation (FRDC) funded Empowering Industry website (www.empoweringindustry.com). The WA Fisheries Research Advisory Body will continue to provide advice to the FRDC on priorities identified through the above channels and other avenues.

As one of the priority recommendations from the 2013 review, WAFIC has engaged an Operations Manager to fulfill the important task of managing the internal processes within the organisation. Stage 2 of the restructure will see the addition of a Communications Officer to implement a newly adopted Communications Plan. This position will also have carriage of oil and gas issues impacting on fisheries and a range of other roles including the national harmonization of commercial vessel safety requirements, biosecurity, etc.

Finally, the Board has approved the establishment of the Annual Industry Forum. This will be held around October each year and will coincide with the AGM however it will provide an opportunity for WAFIC to invite guest speakers on issues of a topical nature to provide an opportunity for our members/stakeholders to raise issues of importance to them and to gain insight into matters of interest. It is our expectation that the AIF will grow into a flagship event over time.

For points on clarification please contact our CEO John Harrison: ceo@wafic.org.au or 94327701.

Regards

Arno Verboon
Chairman

