

Detailed Information for Fishers Submitting an Expression of Interest

for an opportunity to obtain on-board prawn processing equipment at 50% cost as part of a research project

Please consider this information carefully and use the attached Expression of Interest form to make your submission. A separate Expression of Interest form is needed for each vessel.

Questions should be directed to the Project Manager:

Dr Janet Howieson

Email: J. Howieson@curtin.edu.au

Mobile: 0423 840 957

Introduction

This research project was developed by the Australian Council of Prawn Fisheries, Curtin University, the Queensland Department of Agriculture and Fisheries and the Fisheries R&D Corporation, all of whom are participants in the *Fight Food Waste Cooperative Research Centre (CRC)*.

The goal of the project is to reduce waste in the prawn fishing industry by improving on-board processing and packaging.

Detailed industry consultation identified priorities/ opportunities for on-board processing improvements. Five innovative processing equipment designs were subsequently identified as being suitable for installation on prawn trawlers.

The CRC project is now looking for prawn fishers to co-invest in the installation and evaluation of this equipment on commercial prawn trawlers.

It is anticipated that one or more of each of the innovations will be installed on separate vessels, depending on the level of interest. Efforts will be made to test the innovations in a range of fisheries and vessel types.

Depending on the number and location of respondents, briefing sessions for each innovation with the designer may be held at convenient time(s) and place (s).

The innovations, with informed but approximate costs, are shown in Table 1, below.

Detailed descriptions of each innovation can be provided on request to the Project Manager.

Table 1: List of Machine Innovations

Machine Innovation	Supplier	Approximate machine cost (AUD Ex GST)
1. Dipping tank reconfiguration in >20m vessels to enhance dipping time and cold Chain Management During High Volume Harvest <i>Design complete, ready for manufacture once specifications on selected vessel are known.</i>	Austral Fisheries and Cashcor Engineering	\$55,000
2. Automated weighing, packaging system for a range of carton sizes. <i>Existing land-based machine, has now been modified for on-board use and undergone sea trials in Denmark.</i>	KM Fish Machinery, Denmark	\$200,000
3. Digital scales with grading software for faster manual grading on vessels less than 14m. <i>Existing land based machines. And/or sorting tray/hybrid hopper</i>	Peter Bullock Consulting + supplier, eg Marel.	\$9,000-\$20,000 \$20,000 - \$40,000
4. Automated twin roller grader* and modified catching tray for vessels longer than 14m. <i>Design complete based on improvement to existing roller graders. Manufactured to order once specs of selected vessel are known. And/or sorting tray/hybrid hopper modification</i>	Peter Bullock Consulting + manufacturer	\$50,000-\$64,000 \$5,000 - \$40,000
5. Automated separation of fish bycatch from prawns. <i>Existing machine in use on trawlers in Europe to be modified for Australia.</i>	KM Fish Machinery, Denmark	\$58,000

* A larger (4 roller), more expensive version of this design, suited to vessels over 20m, was developed but has not been included in the project.

Equipment Evaluation On-board

Vessel operators must agree to provide sufficient information to the CRC to enable each piece of equipment to be assessed for efficiency, effectiveness and return on investment. Examples may include shot size, number of crew on-board, prawn size grades, packaging used, power usage, packing time, etc

Financial details

It is important to note that while the costs shown in the table above are based on quotes from manufacturers, they are still approximate. Actual costs will depend on the extent of modifications needed to each machine to suit the selected vessel, exchange rate and any import duties.

The CRC project will pay half the capital purchase price and the cost of shipping, packing, insurance of the machines (including those shipped to Australia).

Vessel owners must pay the other half of the capital cost, plus the cost of installing the machine on their vessel.

Vessel owners will need to pay their share of the purchase price to the CRC project in full before the machine is ordered*. This amount is redeemable if the project does not proceed.

Ownership and Intellectual property.

The CRC project will own the machine during the evaluation period*. The vessel owner will assume full ownership and responsibility for the machine as soon as the evaluation is complete, expected to be after the first fishing trip.

If the machine is found to be unsatisfactory and the vessel owner has no further use for it, the CRC project will work with the vessel owner and the manufacturer to find a buyer for the machine, with the proceeds being shared equally. If a buyer cannot be found, disposal of the machine will be the responsibility of the CRC project, once it has been removed from the vessel by its operator*.

Intellectual property generated during the project remains the property of the CRC project and will be publicly available unless specifically identified as being confidential.

**See KM Fish Machinery's trial offer on Prototype 5 (Automated separation of fish bycatch from prawns) that affects payment and ownership.*

Communication and Extension

The vessel operator must allow other prawn fishers to observe the machine at reasonable times.

The operator and the CRC project may disclose information about the operation and performance of the machine to other prawn fishers, and any such communication materials prepared for distribution will be shared with the other party prior to distribution.

Letter of Agreement

Each company that has an Expression of Interest accepted will need to sign a Letter of Agreement with the CRC project, that sets out the commitments of both parties.

The Letter will include performance specifications for the installed machine that have been agreed between the parties and evaluation criteria.

The Vessel Selection Process

An independently chaired expert panel will assess all the expressions of interest. The panel will be comprised of an independent chair, the Project Manager, an independent third party with knowledge of prawn fishing vessels and the relevant design innovation consultants and another member from the project team. The ACPF will not be involved in the selection committee/process to avoid any perceived conflicts of interest.

The criteria for selection of vessels are reflected in the information requested in the Expression of Interest form. The panel will endeavour to install as many machines as the funds allow on a range of vessel types and fisheries.

Selection criteria include:

- The suitability of the deck arrangements and other technical aspects of your vessel
- The availability of skilled staff to operate the machine.
- Your willingness to share information about the installation with other prawn fishers.
- The likelihood that the innovation will reduce waste and increase efficiency in your business.
- The potential value to you of improvements resulting from the installation.

The panel may wish to interview the vessel operator and visit one or more vessels before making final decisions.

Ongoing Support

Once a vessel has been selected for an innovation, the supplier will prepare a technical standard, and design for the new system on the specified vessel. The documentation will be sufficiently detailed to enable construction of the new system on a commercial trawler.

The Supplier will also be available in person or remotely, to assist with implementation and to provide operator guidelines and a preventative maintenance manual.

Submission of Expressions of Interest.

These should be prepared using the attached form and sent to the Project Manager, Dr Janet Howieson, J.Howieson@curtin.edu.au

Closing Date

The closing date for submission of EOIs is 31 October 2021

Expression of Interest

Please note, there may be features of your vessel that impact on whether the installation is feasible. These include factors such as electrical power capacity, space, existing hopper design, load limits, and availability of skilled staff. It may be necessary for the design engineer to visit your vessel to determine these factors before the selection panel makes a final decision.

Business name and ABN:

Contact Person and Contact Details:

Which innovations are you interested in? (Provide a number(s) from the table on page 2. If more than one, please specify your order of preference.)

Vessel name:

Vessel length:

Vessel Age:

(the newer the better)

Times and port at which the vessel is available for inspection and installation:

Name, contact details and qualifications / experience of the person who will be responsible for the installation and operation of the machine at sea:

Please review the specifications provided in the detailed descriptions of each machine before answering the following questions:-

- Are there physical characteristics of the vessel's deck arrangement (including any modification of aligned equipment) that need to be considered for the installation of the machine?
- Does the vessel have sufficient load capacity for your preferred machine?
- Does the vessel have sufficient power capacity for your preferred machine?

Fishery and species caught:

Detailed Information for Fishers Submitting an Expression of Interest

What benefits do you hope to gain from trialling machinery as part of this project? Eg reduced waste (both on your vessel and through the supply chain) through less 'soft and broken', reduced crew time (sorting & separating bycatch), improved financial return through better grading, less reprocessing costs etc

Is there any other information you would like to provide in support of your expression of interest?

Please tick each box below to indicate you agree with each of the conditions listed.

I agree to allow other prawn fishers to observe the innovation with appropriate forward notice at a reasonable time when the vessel is in port	
I agree to pay fifty percent of the capital purchase price, shipping, insurance, etc to the CRC before the innovation is ordered.	
I agree to providing information needed to evaluate the effectiveness and efficiency of the innovation	
I agree to pay installation costs	
I understand I will need to sign a Letter of Agreement to participate in this project.	

Timeline target dates:

Call for Expressions of Interest (8 Oct)

Briefing sessions to discuss each innovation with interested industry and circulation of more detailed design to those interested (By 21 Oct)

Final date for EOIs (31 Oct)

Assessment panel meets, inspects vessels (if needed), announces decision (6 Nov -> 21 Nov)

Discussions with successful applicants on costs, technical details, final machine / vessel specifications and timing of installations (30 Nov)

Successful applicants sign Letter of Agreement² with FFW CRC (6th Dec)

Last date for successful applicants to make payment of 50% of costs to FFW CRC (15th Dec)

Orders placed for innovation machines (18 Dec)