



Expressions of Interest (EOI) - Terms of Reference

Driverless Feed Truck

Summary:

Meat & Livestock Australia (MLA) in consultation with the Australian Lot Feeders' Association (ALFA) is seeking Expressions of Interest from organisations with the capability to develop and commission a driverless truck for cattle feeding.

Background:

The Australian feedlot industry has a history of adopting leading-edge technologies that will improve operating efficiency, cattle performance and feedlot profitability. Interest in automation within the feedlot industry is increasing.

MLA has recently commercialised the 'DeliverEase' system through Brisbane based robotics and engineering company Manabotix. The DeliverEase system enables accurate and even discharge of feed into cattle feed bunks. A feed truck driver is however required to steer and negotiate hazards during the delivery route.

The next step to fully automate the cattle feeding process is to implement driverless trucks. Aligned with the Red Meat (2030) strategic initiative of embracing automation and Ag Tech the feedlot industry wishes to continue to explore potential opportunities in this field.

Objectives:

- (1) Develop and commission a driverless automated truck to execute safe feed delivery routes at an Australian feedlot

Process:

The MLA feedlot program project application process has two stages:

Stage 1 – Expressions of Interest: Applicants submit a preliminary application, utilising the MLA Preliminary Application form, addressing the Terms of Reference. Proposals will be scored against the selection criteria set out in this Terms of Reference. Preliminary applications must not exceed four (4) pages. MLA will acknowledge receipt of each application. Applicants will be advised in writing of the success or failure of their preliminary application.

Stage 2 – MLA Request for Tender - Should your preliminary application be successful, MLA will invite you to submit a Request for Tender.

Brief Project Design and Methods

The successful Research Organisation may adopt either of the following approaches to delivering a driverless truck to the feedlot industry

- (1) Development or delivery of stand-alone driverless trucks

- (2) Development of automation retro-fit kits to commercial grade feed trucks currently owned by feedlots i.e. existing capital items at feedlots.

Applicants must ensure the driverless truck design (size and horse power) is compatible with commercial grade Feed Mixer Boxes. Applicants may propose utilisation of Manabotix 'DeliverEase' technology to automate feed discharge, or their own unique technologies to achieve accurate and even distribution.

A commissioning phase of appropriate length must be included in the preliminary application. Once commissioned demonstration at the host site is required for a minimum of a 12 months is required. Appropriate contingency for breakdowns (parts and labour) should be planned in the budget if applicable.

Subcontracts:

The Research Organisation will be the contracted party by MLA for this project. Research organisations may include but not be limited to driverless truck companies, agricultural technology companies, feedlot organisations, or universities.

The research organisation will be required to execute subcontracts that reflect the budget, methodology, intellectual property ownership and legal terms agreed to with MLA. Subcontracts that will be required to be executed include:

- Truck company (if not the primary research organisation)
- Feed mixer box service provider to mount the box to the driverless feed truck
- Manabotix to install DeliverEase system on driverless truck and mixer box if the Research Organisation is not developing their own custom system.
- Host feedlot site
- Engineering and mechanical support as required.

The MLA preliminary application should name potential subcontractors and approximate budget provisions for each subcontractor.

Capital Items:

Trucks, Mixer Boxes will be listed as capital items in MLA's research agreement with the research organisation. These capital items will be depreciated during the duration of the project and offered for sale to Research Organisation at the conclusion of the project. If the research organisation does not wish to purchase depreciated capital they will be sold to the highest bidder in the open market. Subcontracts between the research organisation and other parties must therefore clearly specify these terms.

Timing:

The duration of the project must not exceed 2 years from project initiation to delivery of the revised final report. However, delivery timeline is a selection criterion at both stages of application assessment and speed to delivery of outcomes for commercial industry will be viewed positively.

Budget:

There is no set budget for the total project however, applicants should deliver a fully justified budget to achieve project objectives. Value for money is a selection criterion at both stages of application assessment.

Confidentiality and IP

By submitting an expression of interest the applicant will disclose information in the preliminary application form to MLA's employees, agents, contractors and advisors, for the purposes of this tender process and any legal or MLA policy requirement. Applicants must identify any information that they consider should be protected as confidential information and provide reasons for this.

IP interest for the project will be negotiated with the successful applicant. Applicants should identify any Background IP that is being brought to the project.

Conflict of interest:

Applicants, research teams or subcontractors with any potential conflicts of interest, should thoroughly outline these in this application, including how they propose to manage them, if applicable.

Selection Criteria:

Stage 1 - Expressions of Interest applications will be reviewed by Meat & Livestock Australia, and selection of the successful applicants to qualify for *Stage 2 - MLA Request for Tender* will be based on assessment against the following criteria:

1. Background of Proposed work
2. Outputs, outcomes and impacts of the project
3. Quality of Brief Project Design and Methods to achieve project objectives
4. Quality of Preliminary Budget
5. Value for Money of Preliminary Budget
6. Delivery Timeline

Project Proposal Submissions:

To access the MLA Preliminary application templates (Grain-Fed, Live Export & Goats), go to www.mla.com.au and follow the links to Research and Development, then Funding opportunities and Project Proposal Submissions:

MLA applications must be lodged electronically as Word document to: applications@mla.com.au

Stage 1 MLA Preliminary Applications must be received by 5 pm Queensland time, Friday 28th of February, 2020.

Strict adherence to the time deadline for applications will occur. Applications received past the deadline will not be assessed. Applications not received in the standard MLA application template will not be assessed.

Further Information:

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