

## Producer Demonstration Sites (PDS)

### Monitoring, Evaluation and Reporting (MER) Guidelines

#### I. What is MER?

Monitoring, Evaluation and Reporting (MER) has been clearly summarised in the following way<sup>1</sup>:

*The process of Monitoring, Evaluation and Reporting (MER) is a key part of project management, accountability and reporting on the impact of the research, development, extension and adoption and, of course, practice change. MLA has developed a Monitoring and Evaluation Framework to guide the collection and reporting of data from PDS projects so as to inform and assist MLA in assessing the value of its investments, to more effectively report outcomes and benefits back to its stakeholders, and to continually improve the management of the PDS projects.*

*This brief guide is directed towards project leaders who are overseeing/managing MLA funded PDS projects. It has resulted from extensive trialling of the concepts in MLA and elsewhere and will continue to be modified based on new needs and experience gained through its implementation.*

#### II. Why is MER important?

As noted above, unless you have a very clear MER plan to guide the collection and reporting of data from PDS projects, and that plan is successfully implemented, it will be very difficult to determine whether the project has been beneficial; whether people directly and indirectly involved have obtained value from it; whether further benefits may accrue to the industry over time; and generally whether it has been a good investment by MLA on behalf of its levy payers (and thus to be able to report outcomes and benefits back to its stakeholders).

#### III. Key factors of MER

The MER framework developed by QualDATA for MLA is based on some simple yet important factors/questions which seek to obtain the necessary information to allow the project to be easily, yet comprehensively evaluated. Evaluation requires an understanding of processes used, producer engagement that occurred, practice change observed / measured and impact. These key factors are:

- a. **What did we do?** Simply describe all the inputs to and outputs from the project e.g.
  - Project processes – plans and steering committee notes
  - \$ invested – and from where they came
  - Number of participants – direct (core participants - involved in demonstration sites) and indirect (observer - part of a broader group or attending field days etc)

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<sup>1</sup> Jeff Coutts and Gordon Stone of QualDATA

- Trial /demonstration data obtained – to demonstrate what we did
  - Products and information documents produced and communicated
- b. How well did we do it?** Measure whether anyone has changed their knowledge and awareness about the issue or their skills to influence it:
- Surveys of participants (those who are directly involved (core participants) and those that are indirectly involved (observers)) before and after the project/event to assess changes to Knowledge, Attitudes, Skills and perceived value in relation to the solution that is being demonstrated for producer consideration and possible adoption.
- c. Has it changed what people do (have they adopted different practices)?** By participating in the project (or observing it) have people changed what they are doing?
- Have people made specific changes (adopted new practices / technologies) as a result of the project? If changes were made, what was the adoption scale (i.e. whole farm/business, partial)? Survey of core participants to benchmark the targeted practices and performance metrics before and after the demonstration. The purpose of the survey is to enable quantitative demonstration of practice change and improved performance outcomes.
  - Will people be more likely to change practices in the future (intentions or aspirations)?
- d. Is anyone better off? Are there any key lessons/learnings for other projects?**
- Have people actually benefitted from the project and by how much?
  - What are the costs and benefits from making these changes for individuals?
  - Are more people likely to benefit in the future (core and observer participants)?
  - What have we learnt that we expected?
  - What have we learnt that we didn't expect?
  - Are there any lessons for others/projects?
- f. Is the industry better off?**
- How might the broader industry benefit from the project? Who else might the practice change apply to (e.g. would others in the region be likely to adopt it?)
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  - Has this been communicated?

#### IV. MER – step by step

To develop a monitoring, evaluation and reporting (MER) plan, the following six simple stages are proposed:

**a. What is your objective or Key Result Area (KRA)**

To start, you will need to define what it is you plan to achieve *within the life of your project*. Describe clearly what the Objective or Key Result Area (KRA) of the project is seeking to achieve. Think about the objective from the perspective of changing a practice in your enterprise. Such objectives should be described in SMART terms

S – Specific

M – Measurable

A – Achievable

R – Relevant

T – Time-based

An example may be:

*By (project end), the project will have demonstrated (outputs) new packages and calculator tools with (demographics) 20 producers to better link (practices) pasture dry matter measurements to decisions on optimum stocking rate –to improve (outcomes) the production of (species) beef per ha (indicative 15% increase) – applicable to 50% of the beef industry in state/area.*

**b. What business driver(s) (outcome) are you focussing on in the project?**

Identify (refer to the application form) precisely what business driver(s) your project will seek to address. Some examples (key MLA metrics) may include:

Performance Metrics	
<b>Productivity</b> (select at least one metric)	Production efficiency (kg LWT / ha) or (kg LWT / ha /100mm rainfall)
	Animal production efficiency (kg LWT /DSE or AE or LSU) or (kg LWT / DSE / 100mm rainfall)
	Pasture productivity (kg DM/ ha) or (kg DM / ha / 100mm rainfall)
	Stocking rate (DSE or AE or LSU / ha)
	Reproductive efficiency (kid, lamb or calf survival % or marking % or weaning %)
	Labour efficiency (DSE or LSU or AE / FTE))
	Mortality rate (%)
	Other, please list .....
<b>Profitability</b> (select at least one metric)	
Whole farm indicators	Return on capital (%)
	Operating profit (\$)
Enterprise Indicators	Cost of Production (\$/ kg LWT)
	Gross Margin (\$ / ha)
	Gross Margin (\$ / DSE or LSU or AE)
	Other, please list.....
<b>Environmental</b>	
	Ground cover (%)
	Whole farm biodiversity
	Tonnes / ha reduction in soil loss
	Other, please list .....

**c. What metrics will you capture to demonstrate success?**

Identify what metrics (measurements) may be available from your project. These will need to be measured before your project commences (e.g. baseline) and at the end so as to assess change. Examples include:

- Number of producers involved in demonstration sites (mandatory)
- Number of producers observing demonstration sites (mandatory)
- Number of head of livestock involved (mandatory)
- Area (ha) involved (mandatory)
- Project steering committee decisions and notes
- Costs of inputs for project (inputs, labour) (mandatory)
- Outcomes from demonstration sites (e.g. reproduction rate, weaning rate) (mandatory)
- Benefits from outcomes (e.g. \$ value of increased weight gain) (mandatory)
- Knowledge/attitudes/skills of core and observer participants before and after project (mandatory)
- Producer practice (relevant to the topic/project) before and after project (mandatory)

- Measure of economic and productivity performance metrics before and after the project (mandatory)
- Field days held – examples of engagement
- Media events/outputs
- Forecasted potential impacts well after the project (e.g. 12 months after completion of the project)

**d. How will you capture/measure these metrics?**

Identify what measurement systems or approaches you will employ to capture the information required for the MER e.g.

- Records of inputs
- Steering committee notes regarding decisions
- Narratives from producers directly involved in the project and specific case studies on the value or impact from their involvement in the PDS
- Surveys – pre and post the project for core participants and observers (mandatory)
- Simple benefit cost analyses
- Media monitoring
- Surveys some considerable time after the project (including secondary impact examination (e.g. producers who have changed practices the following year or the amount of a particular product used 2 years after the trial). Such surveys are the responsibility of MLA, not the project.

**e. Compilation and reporting**

Ensure you keep a good record of all the information you are capturing and include it in Milestone reports at every opportunity. The MLA reporting templates will ensure consistency of data reporting.

**f. Keep it simple!**

The art to a good MER is keeping everything as simple as possible. This will ensure you capture the information you absolutely need at minimum cost and do so in a form that can allow clear evaluation of the project and reporting of its outcomes to stakeholders.

## V. An example MER plan

The following is a simple worked example of a generalised MER for a PDS project. It is provided for guidance purposes only.

**KRA:** *By June 2017, in 10 extensively managed cattle enterprises in northern Australia, demonstrate and quantify the value of a single clostridial vaccination of either 5in1 or 7in1 vaccine to reduced mortality in young cattle*

### Key business driver (metric being examined):

- Mortality rate as measured between marking and weaning

Evaluation level <sup>[1]</sup>	Generic Performance Measures	Project Performance Measures <i>(Please fill in and delete example)</i>	Evaluation Methods <i>(Please fill in and delete example)</i>
<b>Inputs – What did we do?</b> <i>Describe the planned and expected inputs involved in your project, including funds, resources, development &amp; projects structures</i>	<ul style="list-style-type: none"> <li>• Number of core producers involved in demonstration sites &amp; their demographics</li> <li>• Number of producers observing demonstration sites &amp; their demographics</li> <li>• Number of head of livestock involved</li> <li>• Area (ha) involved</li> <li>• Project steering committee decisions and notes</li> <li>• Investments (\$'s) from MLA and other parties (cash and in-kind contributions) and what was purchased – professional time, project inputs</li> </ul>	<ul style="list-style-type: none"> <li>• 10 on-farm demonstrations sites representing 10,000 head of cattle</li> <li>• 50 observers covering 40,000 head of cattle</li> <li>• Funds: \$25k p.a. from MLA used for professional fees, travel and field days</li> <li>• Funds: \$50kp.a. in kind contributed to vaccines and professional time</li> <li>• Project manager appointed</li> <li>• Steering committee appointed and meeting twice a year</li> </ul>	<ul style="list-style-type: none"> <li>○ Good records of all project plans and activities</li> <li>○ Project steering committee notes</li> </ul>

<sup>[1]</sup> Note: The headings in column 1 are also listed in the PDS Final Report template.

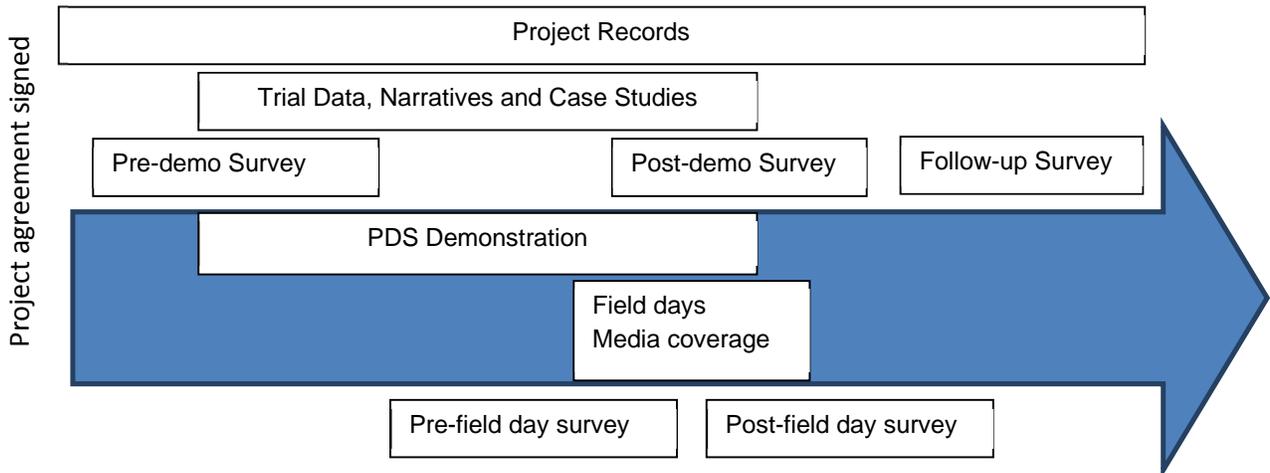
<p><b>Outputs - What did we do?</b> <i>Describe the outputs planned/expected from your project, including engagement activities &amp; products from demonstration sites</i></p>	<ul style="list-style-type: none"> <li>• Outputs from demonstration sites (new knowledge &amp; data) (e.g. reproduction rate, weaning rate, mortality rate, gender, management methods, cost of vaccine, extra labour and cost of production)</li> <li>• Field days held, demographics collected, and M&amp;E conducted</li> <li>• Media events/outputs</li> </ul>	<ul style="list-style-type: none"> <li>• New knowledge &amp; data from the 10 demonstration sites</li> <li>• Annual Field day targeting 50 producers representing 40,000 head of cattle</li> <li>• New information package developed on the value of vaccination</li> <li>• Extension and communication activities e.g. 3 field days held</li> <li>• 5 media releases</li> </ul>	<ul style="list-style-type: none"> <li>○ Data from demonstration sites in milestone reports</li> <li>○ Compilation of media activities</li> <li>○ Copies of information package developed</li> </ul>
<p><b>Changes in knowledge, attitudes and skills - How well did we do it?</b> <i>Describe the changes in KASA that you are planning to achieve.</i></p>	<ul style="list-style-type: none"> <li>• Change in knowledge/attitudes/skills of <b>core and observer</b> participants before and after project/activity</li> <li>• Experience of producers involved in the PDS – extent to which they found the project/ activity useful or of value.</li> <li>• What was most helpful in supporting capacity change?</li> </ul>	<ul style="list-style-type: none"> <li>• X% of <b>core</b> producers have greater knowledge of the value of vaccinations and other animal management practices</li> <li>• Y% of core producers have increased their skills and confidence in animal husbandry practices</li> <li>• Y% of <b>observer</b> producers have greater knowledge of the value of vaccinations and other animal management practices</li> <li>• Key findings</li> </ul>	<ul style="list-style-type: none"> <li>○ Narratives and Case Studies from people involved in the PDS<sup>2</sup></li> <li>○ Pre project surveys – (baseline) and post project survey</li> <li>○ Post event survey/feedback sheets (e.g. field day) that assess changes</li> </ul>
<p><b>Practice changes – Has it changed what people do?</b> <i>Describe the practice changes that you are expecting to achieve by the end of your project</i></p>	<ul style="list-style-type: none"> <li>• Producer (core &amp; observer) practice (relevant to the topic/project) before and after project</li> <li>• The extent of practice change adoption (# of cattle) and where</li> <li>• Influence the project had on practice change achieved</li> </ul>	<ul style="list-style-type: none"> <li>• 10 core participating producers representing 10,000 head, adopt single shot clostridial vaccination</li> <li>• 50 additional producers (totalling 40,000 head) intend to adopt single shot clostridial vaccination as a result of interacting through the PDS via field days</li> </ul>	<ul style="list-style-type: none"> <li>○ Baseline surveys (practice change and impact) – as above</li> </ul>

<sup>2</sup> Narratives and case studies will be captured using a simple proforma/template (see PDS Narratives and Case Studies Guidelines). They will gather data and experiences from the people directly or closely involved in the PDS. This information will help to further define the value or impact from their involvement in the PDS.

<p><b>Benefits – Is anyone better off?</b> <i>Describe the benefits that you are expecting to achieve as a result of the project</i></p>	<ul style="list-style-type: none"> <li>• Benefits from outcomes (e.g. \$ value of decreased mortality rate compared to baseline)</li> <li>• Costs to achieve outcomes (e.g. increased inputs, labour)</li> <li>• Benefit Cost and Sensitivity analyses at the business level</li> <li>• What are the unintended/unexpected benefits or consequences?</li> <li>• Project learnings, barriers / enablers to adoption</li> </ul>	<ul style="list-style-type: none"> <li>• 10 core participating producers representing 10,000 head, adopt single shot clostridial vaccination resulting in a reduced weaner mortality of 3%</li> <li>• Enterprise productivity improves by x%</li> <li>• Improved understanding of what the main barriers and enablers to adoption of these techniques may be</li> </ul>	<ul style="list-style-type: none"> <li>○ Data from demonstration sites</li> <li>○ Benefit Cost Analysis (BCA) at enterprise level</li> <li>○ Longer term surveys and data capture on impacts (e.g. reseller information)</li> </ul>
<p><b>General observations / outcomes – Is the industry better off?</b></p>	<ul style="list-style-type: none"> <li>• Potential impacts (practice change &amp; productivity) at the end of the project and well after the project has concluded (e.g. 2 years later) for the broader target audience</li> <li>• BCA of broader industry impact (productivity, profitability, environmental &amp; social)</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Single shot vaccination adopted by x producers by 20xx</li> <li>• Single shot vaccination is relevant to x% of industry, and if adopted by the target audience has the potential to deliver industry benefits of \$xm p.a. and reduce industry mortality rates by 3%</li> <li>• This project will assist MLA in reducing the cost of endemic disease and improve animal welfare</li> </ul>	<ul style="list-style-type: none"> <li>○ Surveys of key personnel at the completion of project, and in one or two years' time</li> <li>○ Extrapolation of BCA results to relevant part of the industry</li> </ul>

## VI. Chronology of PDS data collection

This flow chart provides a clear time-based illustration of key timings for data-collection during a project.



### Notes:

- Pre-demonstration surveys would be to establish baseline measures of knowledge, skill, attitudes and practices in relation to the issue in question e.g. Do producers already vaccinate and if so why and if not why not?; What is the biggest impediment to changing practices?
- Post-demonstration surveys will assess if the trial has made any difference to knowledge, skill, attitudes and practices in relation to the issue in question.
- Similar to pre- and post- field day surveys
- Follow-up surveys would occur at least 6 months (most likely 12 to 24 months) after completion of the PDS and would help determine the changes made on-farms as a result of participating to the PDS and their benefits. The surveys may be formal – or from 3rd parties – for example sales of vaccines.