Workflow: Improvement Projects

Toolkit 13.3
Managing Focused Improvement Projects or Project Management

target audience

Leadership team, strategic partner, supervisors, and contractors.

what it is

According to the Project Management Institute (PMI), project management can be defined as "the application of knowledge, skills and techniques to execute projects effectively and efficiently." Within the context of all organisational improvement projects, project management is the sum-total of all activities to execute the project, as intended, on time, and within budget. To execute any project correctly, it is important to actively manage the following elements:

- **Project Objectives** – Project objectives serve to translate business goals into specific objectives that implementation of the project must accomplish. Objectives should be either quantifiable or otherwise objectively assessed and may include:
  - Safety risk reduction.
  - Decrease in operational cost.
  - Improvements in productivity, yield, product quality, etc.
  - Infrastructure and systems improvement which could be of a capital nature.
  - All projects fulfilled and completed on schedule and within budget.
  - Prioritizing the objectives is important for decision making, since at times they may conflict (e.g., project speed vs. project cost).
- **Project Schedule** – The project schedule details the key activities and deadlines the project implementation must meet. Each activity needs a start and end date, a responsible owner, and list of other resources involved. The interdependencies among activities (i.e., must finish activity A to start activity B) should be noted as well. A Gantt chart could be a useful tool in developing a project schedule. Refer to Ganntt Chart example.
- **Project Cost** – Consider linking expenditures to the project schedule to help manage costs. It is essential to develop an accurate project cost estimate.
- **Project Team** – The nature of the project will drive team selection but there are two roles that should exist on every project team:

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- Project sponsor or champion – The sponsor's overall responsibility is the successful outcome of the project. The sponsor provides the business context, remove barriers, and helps provide guidance and resources to the project team.
- Project Facilitator/Manager – The project manager has overall responsibility for project execution, oversight, and control. Refer to Toolkit 13.2 – Identify Key Losses and Register Improvement Projects.

Once the project is underway, the project manager holds periodic, routine reviews of progress with the project team and farm management. If the project is not meeting objectives, the project team determines the appropriate actions to take to get it back on track. It is useful to develop a risk management plan up front (i.e., at the time the project is chartered) along with the project schedule, which can be used to anticipate and avoid problems or identify action plans that can be implemented quickly and effectively if the project review uncovers them.

why it is important

Formal project management moves an idea into a plan (with a budget), and then into action and results.

Effective project management will minimize disruptions to routine operations whilst ensuring focus on the objectives of the initiative. A good management process ensures efficient and effective use of people and non-people resources.

Improvement projects are initiated from a formal loss and waste exercise and will, if executed following the project management principles listed above, make a direct contribution to the profitability of the organisation. Refer to Toolkit 13.2 – Identify Key Losses and Improvement Opportunities.

Poor project management will lead to missed deadlines, disruptions to existing plant operations, poor morale, and cost overruns. Without a periodic, routine review of the project's progress, problems in execution will not be anticipated or identified until too late in the process to avoid or manage them.

success factors

- **Project Selection** – There should be clear guidelines for the selection of projects. Guidelines should be based on the benefits that the company is expected to get in return for resources required to run the project. For example, CI improvement project selection should be based on expected net benefits (e.g., savings) over the shortest possible implementation period.
- **Clear Project Objectives** – Clarify the project objectives and resources with the leadership team to get their commitment and understanding as an initial step. For bigger projects it will make sense to allocate a sponsor from the leadership team.
- **Project Funding and Budgeting** – Often farmers know what improvements and projects they need to complete but are limited by a lack of capital or funding. There is not easy way around this, and even government grants and loans can come with onerous conditions. However, the more professionally you manage your farm, the stronger your management best

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practice is, and the greater your ability to attract funding will be. Ensure that every project is properly funded and budgeted for.

- **Project Charter** – Start the project with a kick-off session with the team to define the project objectives, timelines, and the roles and responsibilities of everyone involved. All projects should lead with a formal project charter that defines the problem being addressed, or the improvement being implemented, the project team members, project milestones, and expected outcomes upon completion. Refer to Toolkit 13.2 – Identify Key Losses and Improvement Opportunities.
- **Establish a Review Process** – The frequency of the review will be determined by the project requirements. It is essential that all decisions be documented and screened for operational impact.
- **Establish a Stage-gated Process** – Stage gated processes ensure that all key activities at each phase of the project are completed in a timely and sequential manner before moving to the next phase. Before moving to the next stage, the project team reviews the status with the project sponsor. In the case of capital projects, stage gates might look as follows:
  - Planning phase
    - Stage 1: Pre-project planning and preparation
    - Stage 2: Project approval
  - Execution phase
    - Stage 3: Project design and procurement
    - Stage 4: Project execution and start-up
    - Stage 5: Post-project assessment
- **Continuous Improvement Projects** – Continuous improvement projects may choose to adapt the six sigma problem solving methodology, known as DMAIC, to stage gate improvement projects. Refer to Toolkit 12.2 – Structured Problem Solving.
  - **Define** – Ensures that the true picture of the opportunity or problem is understood, documented, and agreed to by the organization. The define step often takes place at the time that the project charter is put into place.
  - **Measure** – An often-overlooked step, the objective is to ensure that the measurement system and/or data used to justify or determine the success of the project is sound. If the measurements are inaccurate or non-repeatable, then the entire basis of the project may be in question.
  - **Analyse** – Uses data and a structured process (Process mapping, 5W1H, 5WHY analysis, fault tree analysis, design of experiments, etc.) to develop possible solutions and study their impact. For some projects, the possible solutions may be extremely limited or obvious. For others, it may be necessary to do a "proof of concept" experiment before moving forward with the improve step.
  - **Improve** – Refers to taking action to execute the improvements in the operation.
  - **Control** – Puts in place the training, procedures, and audits to make sure that project is fully understood and owned by the organization. This is the final "hand off" from the project team to the shift-based teams. This is also the stage where the organization validates that the improvements have achieved the desired outcomes (e.g., cost savings, productivity improvement, risk reduction, etc.).

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- **Make Project Progress Transparent** – Employees at all levels are frequently interested in the status of improvement projects in their area but are often left feeling frustrated because they cannot easily determine the status of those projects. Consider how to best communicate the status of improvement projects and build that activity into the project schedule.

execution steps

The project management execution steps are:

1. Develop guidelines for project proposals and selection at different organisational levels. For example, projects that will improve a safety situation should be given priority.
2. Align on a standard, stage gated project management process to ensure that all projects are executed in a disciplined manner and that decisions about resourcing and timing of projects are made at the appropriate time.
3. Appoint project sponsors and project managers that will identify project teams.
4. Ensure all projects have a formal project charter, which should include:
   a) Description and objectives of the project.
   b) List of project team members and stakeholders.
   c) Project plan with deliverables and deadlines.
   d) Project feedback and reporting templates.
   e) Project risks and mitigation steps.
   f) Estimated project cost and expected ROI.
5. Formally review projects after completion to identify opportunities for improvement and learning.

assessment questions

Please Note: There is no minimum / maximum amount of questions you can add

1.	Is project management accepted as an essential tool by management?
2.	Are there guidelines for project identification, e.g., through a L&W exercise?
3.	Are there guidelines for project selection?
4.	Are project sponsors and facilitators formally assigned?
5.	Are projects documented in a charter?
6.	Are projects monitored to ensure progress and mitigate risks?
7.	Are completed projects reviewed for learnings and improvement?

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resources

1.	Ganntt Chart example

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