Workflow: Improving the Asset

Toolkit 9.1
Capital Projects Planning

target audience

Packhouse owners, packhouse operations managers, industrial and systems engineers.

what it is

Like any industrial, equipment and asset driven business, packhouses and their machinery and systems age and need to be replaced or upgraded. This improvement or change can be for several reasons:

- A competitive imperative for the latest equipment driven by client/market demand.
- Aging or obsolete equipment.
- An improvement in packhouse processes that requires new equipment.
- Improvement of the infrastructure.

While small improvements could be categorised as an operating expense (not capitalised), new installations above a defined threshold, level of complexity, and where the benefit/return and lifespan of the new asset is significant should be viewed as capital projects.

Do doubt, a packhouse will have a list of asset improvement projects they would like to undertake; some of them with short-term or immediate benefits, and others with longer term returns. Capital projects planning includes setting priorities and making trade-offs.

This toolkit lists key considerations regarding capital projects' planning.

why it is important

Although all packhouses essentially do the same thing, using a similar process, and have the same objective, i.e., packing high-quality fruit for successful delivery to market, they differ in the efficiency, productivity, and costs of doing so. The mechanisation, automation, and level of technology systems is evolving steadily, driven by both market demand and by innovation and development per se.

It is important to define what improvements you wish or need to make and decide what should take priority before you can plan the projects themselves.

success factors

- **Clear criteria defining a capital project** – Make a clear distinction between improvements that can be expensed and those projects that are clearly capital projects. New installations above a defined threshold, level of complexity, and where the benefit/return and lifespan of the new asset is significant should be viewed as capital projects.
- **Involve all stakeholders and be comprehensive and inclusive** – Develop a process through which you involve all the important stakeholders in the packhouse to list the improvement projects they deem necessary or beneficial. This process can seem demanding and may result in a very long list, but the benefits of having a comprehensive list which is then carefully considered and prioritised are:
  - Nothing is left out.
  - Dependencies, interdependencies, and risks can be factored into the plan, and a coordinated approach can result in significant time and cost savings.
- **Maintain a market focus** – Keep your eyes clearly focused on the requirements of and benefits to the market. The justification for a capital project will be very clear if it will maintain or improve a competitive capability, be that related to quality, price, or operating cost (margins).
- **A clear objective and/or problem definition** – Ensure that your motivation and underlying business case for undertaking a capital project is clear, including consensus within your team of the problem and how the project will address the problem. This is an important exercise, because the solution is not always the asset, but could be:
  - Improving or changing a process, such as maintenance or operating procedures.
  - Identifying a systemic problem and solution, e.g., higher quality parts, e.g., better ball bearings or a better quality belt.

(See Workflow 13 – Improvement Projects, and in particular Toolkit 13.2 – Identify Key losses and Registering Improvement Projects).

- **Quantifying costs, benefits, and trade-offs** – This can be difficult because one is not comparing the same priority, e.g., a short-term investment may yield immediate results and solve a problem, but a larger infrastructural project may provide much larger longer-term benefit. It is important to apply a systematic approach, which includes qualitative and subjective criteria, and a process that ensures adequate consensus within the business. Whatever the outcome, good or maybe disappointing, the decision makers should be able to stand together in their decision and not fall into "fixing the blame" should the benefits remain unrealised.
- **Prioritising** – Ensure that you have clear criteria for prioritising capital projects, these could include:
  - Funding – The funding available
  - Capacity improvement – Whether this is a short, medium, or long-term requirement and whether it is supported by predictable demand.
  - ROI – Considering both the overall ROI and how quickly the return can be realised.
  - Environmental or regulatory requirements – If meeting such requirements is mandatory, it may push the project to the top of the priority list just to stay in business, without necessarily resulting in a financial gain.

- Operational efficiency and costs – The extent to which the project will affect costs, efficiency and productively. In short, a cost/benefit analysis.
- Risk – Quantifying the risks related to doing and not doing the project.

➢ **Organisational and project management capability** – Assess your organisational capacity and capability to execute a project successfully, i.e., on time, on spec, and on budget. In most cases, large capital projects are one-off events for most organisations, i.e., they have not done a similar project before and are unlikely to do one again soon (within the tenure of the current management team), so experience is possibly not deep enough. This consideration applies both to managing the project yourself and managing a contractor. This is a key risk you have to manage.

execution steps

See the above success factors.

assessment questions

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

1.	Do you have clear criteria for what constitutes a capital project?
2.	Do you have an inclusive process in which all stakeholders have an input and a say in which projects should be considered and which ultimately selected?
3.	Do you have clear, market focused, selection criteria, and a clear problem definition, as a basis for justifying a capital project, i.e., a clear business case?
4.	Do you have a systematic and objective method for prioritising projects?
5.	Do you have the organisational capacity and competence, or access to such skills, to scope and manage the capital project?