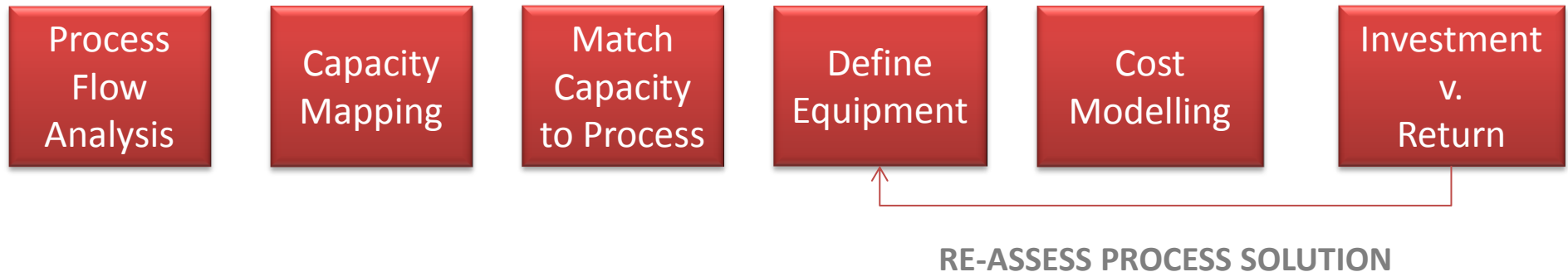




# EQUIPMENT & PROCESS SELECTION

# Choosing the Right Process and Equipment for Your Product

**Equipment & process selection** can be time consuming and difficult. The process is driven by a number of key factors and in order to understand your requirements and deliver them effectively it is advisable to go through the following steps:



# Process Flow Analysis

## Understanding your product range

The only way to understand your product range is by carrying out Value Stream Mapping. This allows the efficient assessment of process flows and the clear identification of the right processes.

## Let process drive equipment selection, not the other way round..

Map the process without worrying about equipment, let the optimum process drive the equipment selection. A large amount of technology in the current industry wasn't around 10 years ago. Demand drives innovation.

## Use the process to drive the building blocks.



# Steps to a successful capacity plan

- Accurate forecasting of sales
- Understand seasonality
- Drive into daily plans and customer ordering habits
- Design around peak day
- Use recipes to explode into intermediate and raw material requirements
- Understand units of measure
- Shift patterns options

**Use the capacity plan to drive equipment scale, investment and efficiency.**



# Match Capacity to Process

**Developing and Rationalising your facility requirements**  
– key considerations to aid efficiency.

- Are there some process steps so small that the parent product should be designed out of the portfolio?  
E.G: one type of vegetable that is frozen leads to the installation of an expensive cold store investment or 1 pasta product that necessitates a sheet pasta cooker?
- Highlight synergies where products with slightly different profiles may be aligned to give a more efficient process and equipment scale
- Understanding the size of each building block allows equipment specification to progress and outline layout design to begin
- Are some elements oversized based on the capacity assumptions?  
Could purchasing power drive more deliveries and JIT production?
- Are some processes required but the prepared intermediate could be procured at lower cost?



**Understand where your added value is maximised.**

# Define Equipment / Cost Modelling / Investment v. Return

Equipment specification will only be reached with effective process and capacity mapping. Initially, budgets may be generated by defining equipment, modelling this into the cost plan and measuring the investment versus return for different equipment. The following should be assessed:

- Automation versus flexibility
- High speed production versus balance of labour and shift patterns
- Awareness of trigger points in capital investment – when does a bucket and spade solution become a Rolls Royce solution

**All of the above allows a manufacturer to manage cost and mitigate risk until a product is established. Sometime co-packing may be the right solution for certain products!**



# Identifying a Clear Requirement for Suppliers

A complete definition of your requirement will enable effective communication with potential suppliers.

Creating a clearly defined URS (User Requirement Specification) minimises confusion between the purchaser and supplier, driving true bids that eliminate hidden costs.

This step requires focus and detail in order to aid clarity. A good URS should be brief, simply worded and useful for the intended purpose.



**Protolan work closely with our clients to deliver efficient food manufacturing.**

**Contact to discuss how we can assist you to identify the right process and equipment for your product.**



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