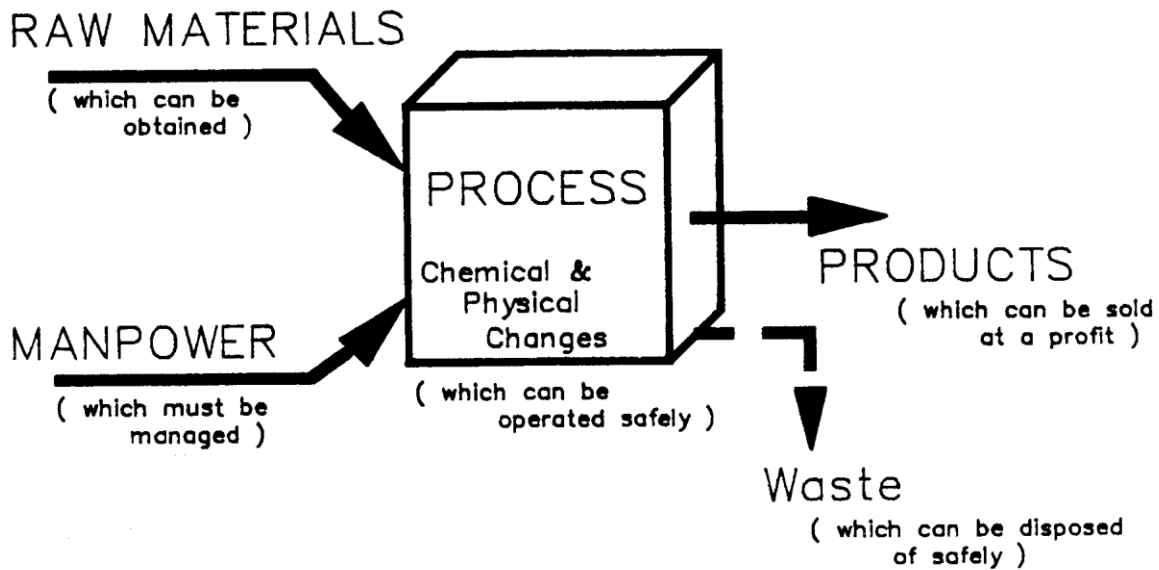


OBJECTIVE of CHEMICAL ENGINEERING:

Convert raw materials & labor into products



Overall ECONOMIC Goal:

Maximization of Profits with Minimization of Risks.

Raw Material Costs

+ Processing Costs, including payoff of plant investment

= **Product Manufacturing Cost**

then hopefully :

Product Sales Price

— Product Manufacturing Cost

— Selling and Administrative Costs

= **Profit**

In general, we want this profit to be greater than the interest we could earn by safely investing the money in a bank savings account or securities.

The engineer plays a key role in maximizing profits over the current interest rate and minimizing the risk of process or plant failure.

Economic terminology, symbols, and nomenclature used in business & engineering economics differ according to their use by: Process Engineers, Economists, Accountants. Every company or organization uses slightly different terminology definitions for similar concepts. Despite these differences, the economic goal is the same.

A word to the wise :

Accountants in the chemical industry should be helpful allies of the engineer in preparing economic estimates. You might as well seek their help and advice since they will review your figures not only for arithmetic, but also for accuracy in assumptions made, before your proposals are reviewed and decided upon by top management.

Whether or not you are with a large or small company, do not become discouraged if some of your proposals are not accepted. Your requests will be competing for limited funds which may be better applied to proposals with greater estimated profits or lesser estimated profits that have less risk. An essential factor is how well you communicate your proposals and convince management to implement your recommendations.