



## Process Cycle Efficiency (PCE)

Process Cycle Efficiency (PCE) is a metric that indicates the amount of total time across a process that is spent on value-added activities versus non-value-added activities.

It is calculated as:

$$\text{Process Cycle Efficiency} = \text{Value Added Time} / \text{Total Cycle Time}$$

Where:

- Value Added Time = time spent on process steps the customer values
- Total Cycle Time = value added time + non-value added time

A higher PCE is better and indicates:

- Less time wasted on non-value activities
- Smoother flow between process steps
- Less inventory accumulation
- Faster throughput speed

Ways to improve process cycle efficiency include:

- Eliminating non-value added steps
- Reducing wait time between steps
- Preventing rework through quality control
- Balancing capacities between process stages
- Simplifying processes to remove unnecessary complexity
- Automating manual work where possible
- Optimizing layout to improve flow

Tracking PCE provides a metric to gauge process health and efficiency. It quantifies the opportunities to reduce waste and streamline flow.

Improving process cycle efficiency leads to lowered costs through less staff time wasted, reduced inventories, faster throughput, and increased customer responsiveness. It is a key enabler of productivity goals.