



Quick Changeover

? What is It

Quick Changeover, also known as **Single Minute Exchange of Die (SMED)** aims to reduce costly inventories and improve efficiency. As lean production depends on small lot sizes, small lot sizes **depend** on quick changeovers.

🕒 When

- To support **small batches** production improving customer demand.
- To **improve OEE** and reduce **inventory** levels.
- Used in the **Improvement** phase of the **DMAIC**.

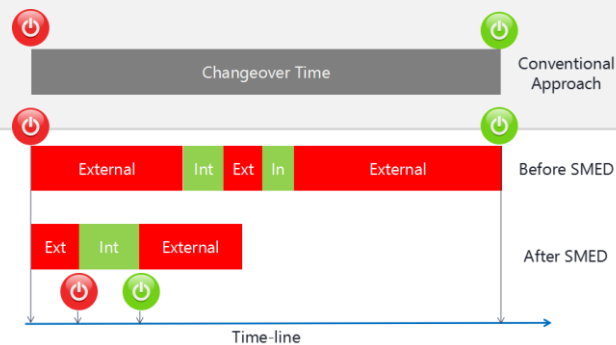
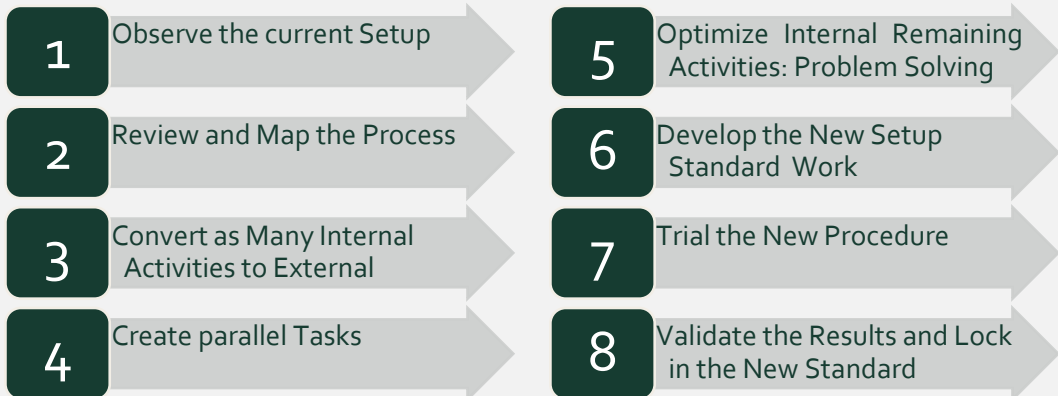
🎯 Goals

- Reduce the need for **Forecasting**.
- Reduce costly **inventories**.
- To support **small batches** production improving **customer service**.

📝 How

An internal activity:
One that is conducted whilst the machine is stopped.

An external activity:
One that is conducted whilst the machine is running.



🔑 Hints

- 1 All setup work is combined. There is no distinction between internal and external work.
- 2 External setup and internal setup are identified and separated.
- 3 Work that was previously included in the internal setup is transferred to external setup.
- 4 Relentless and continuous improvement of all work elements within the internal and external setup (Kaizen).

📄 Example

PathStone Group SMED PROCESS WORKSHEET

Process: Carbonation process Responsibility: Tony Lopez Page: 1 of 1
 Department: Ceramic plate line Prepared by: Ernest Young Date: 6/30/22
 Core Team: Matwe Path, Steven Rion, Zaida Perez Rev: 2

Work Station	Process Flow	Activity	Cycle Time (min)	Before Improvement			Action Step	Comments
				Internal	External	Parallel		
Bagger	Prep	Prepare product on table	4	x			Reduce	Make too long
Set up scale	set up	Set up tare weights, verify lecture and lights	6	x			Reduce	
Test sample	set up	Test first run samples			x		N/A	
Verify final product	QA					x	Eliminate	
Line clearance	QA	Check list and QA tech call		x			Reduce	
Approve and signature	QA	QA takes to supervisor for approval			x		Eliminate	supervisors need to sign, not always around