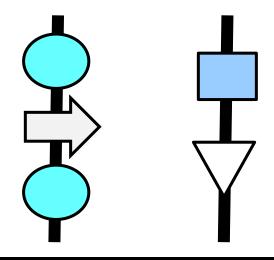
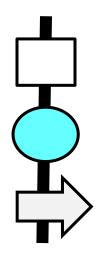
# Continuous Improvement Toolkit

## **Flow Process Chart**



Managing Deciding & Selecting **Planning & Project Management\*** Pros and Cons PDPC Risk Importance-Urgency Mapping **RACI** Matrix Stakeholder Analysis **Break-even** Analysis **RAID** Logs FMEA Cost Benefit Analysis PEST PERT/CPM Activity Diagram Force Field Analysis **Fault Tree Analysis** SWOT **Pugh Matrix Project Charter** Roadmaps Voting Gantt Chart **Decision** Tree Risk Assessment\* TPN Analysis PDCA **Control Planning** Matrix Diagram Gap Analysis OFD Traffic Light Assessment Kaizen **Prioritization Matrix** Hoshin Kanri Kano Analysis How-How Diagram **KPIs** Lean Measures Paired Comparison Tree Diagram\*\* Critical-to Tree Standard work **Identifying &** Capability Indices OEE Cause and Effect Matrix Pareto Analysis Simulation TPM Implementing RTY MSA Descriptive Statistics Confidence Intervals Understanding Mistake Proofing Solutions\*\*\* Cost of Quality **Cause & Effect** Probability **Distributions** ANOVA Pull Systems JIT Ergonomics Design of Experiments Work Balancing **Reliability Analysis** Graphical Analysis Hypothesis Testing Automation Regression Bottleneck Analysis Visual Management Scatter Plot Correlation Understanding **Run Charts** Multi-vari Charts Flow Performance 5 Whys Chi-Square Test 5S **Control Charts** Value Analysis **Relationship Mapping**\* Benchmarking Fishbone Diagram SMED Waste Analysis Sampling TRIZ\*\*\* Process Redesign Focus groups Brainstorming Time Value Map Analogy Interviews SCAMPER\*\*\* IDEF0 Photography Nominal Group Technique SIPOC Value Stream Mapping Mind Mapping\* **Check Sheets** Questionnaires Affinity Diagram Attribute Analysis Measles Charts Flow Process Chart Process Mapping Visioning Flowcharting Service Blueprints Lateral Thinking Data Critical Incident Technique Collection Creating Ideas\*\* **Designing & Analyzing Processes** Observations

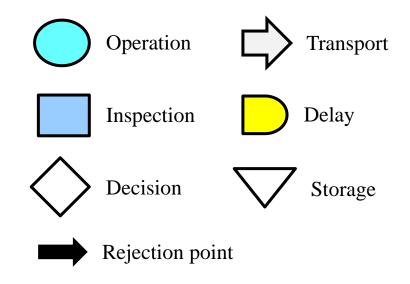
- □ The Flow Process Chat is a symbolic representation that illustrates the sequence of actions within a process.
- □ It is commonly used when analyzing the steps in a process to help identify and eliminate waste.
- □ It records the steps of a process along a vertical line.
- It is used to show the steps of a process using symbols along with text.



- A useful feature of the Flow Process Chart is that it can be drawn up as the process is happening.
- □ This will allow getting an accurate description of the process.
- By watching and recording, a person for example can follow a part, noting how and when it is produced, moved, checked and stored.
- □ This ensures that what actually happens gets recorded.
- Later when analyzing the process, some steps become obvious candidates for improvement, such as long delays and non value adding activities.

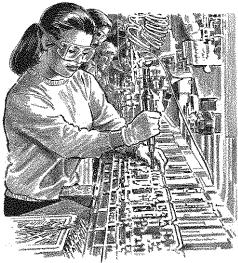
#### **Common Symbols:**

- **Operation:** Produce or process something.
- **Storage:** Storing materials or other items.
- **Transport:** Movement of people, materials or other items.
- Delay: Idle time of people, material or machinery.
- Inspection: Checking of items to ensure correct quality or quantity.

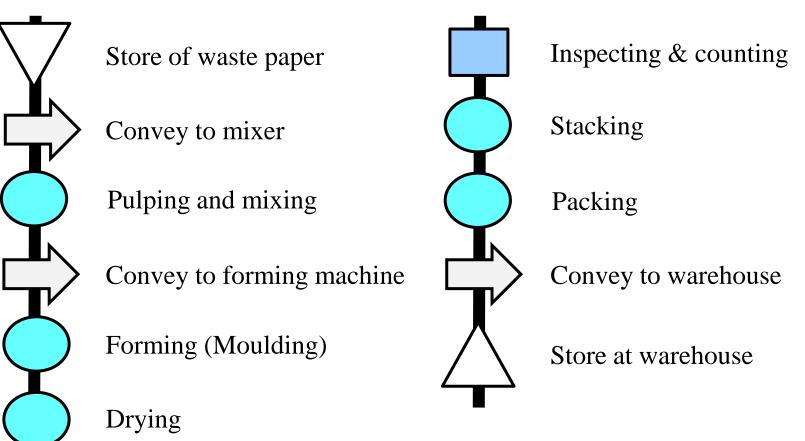


#### **Three Types:**

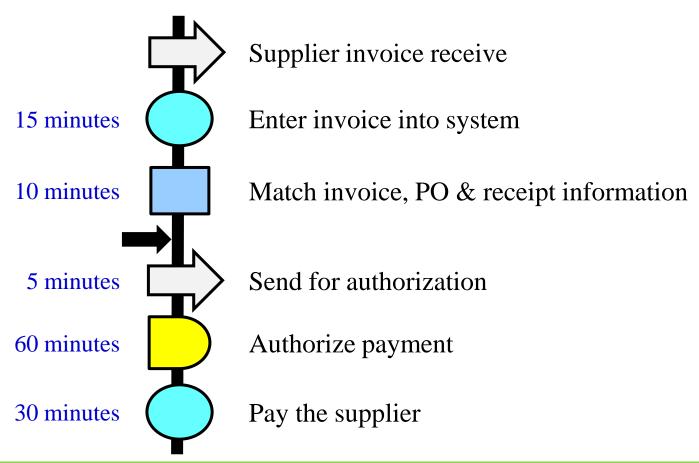
- □ A man-type chart which shows the actions of a person.
- □ A material-type chart which shows what happens to a product or item.
- □ An equipment-type chart which shows how a tool or other piece of equipment is used.



**Example** – Egg Trays Production:



**Example** – Supplier Invoice Processing:



**Example** – How to Improve the Biscuit Production Process?

Mix put into molder

**Biscuits molding** 

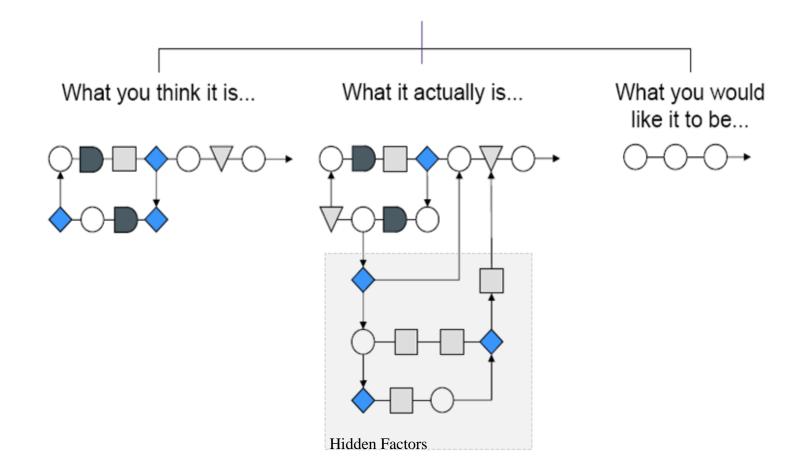
Biscuits to oven

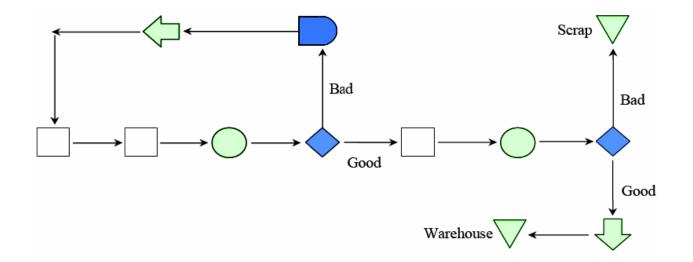
Baking biscuits

Cooling

Biscuits to inspection line

Inspection for misshapes Staking for packaging Wrapping Put into shipping boxes Store at warehouse





## An outsider? Walk the process and understand it