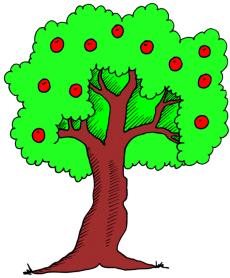


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The Continuous Improvement Map

Managing	Decid	ing & Selecting	Plann	ing & Project Management*
Risk PDPC	Decision Balance She	et Importance-Urgen	cy Mapping <u>Da</u>	aily Planning PERT/CPM
FMEA RAID Log*	Force Field Analysis	Cost Benefit Analy	sis <u>MOST</u>	RACI Matrix Activity Networks
Risk Assessment*	Break-even Analysis	Voting TPN Analys	sis <u>SWOT</u> A	Analysis Stakeholder Analysis
Fault Tree Analysis	ecision Tree Pick Cha	art Four Field Matri	x Project Cha	arter Improvement Roadmaps
Traffic Light Assessment	Critical-to Tree QFE	D Portfolio Matrix	PDCA	A Policy Deployment Gantt Charts
Lean Measures Kar	no Analysis Matrix Diagra	m Paired Comparison	DMAIC Kaize	en Events Control Planning
Bottleneck Analysis** C	ost of Quality* Pugh Matrix		A3 Thinking	Standard work Document control
OE Process Yield	E <u>KPIs</u> Pareto Ana		lerstanding	Cross Training Implementing
	scriptive Statistics ANOV		ise & Effect	Value Analysis Solutions**
Pr Gap Analysis*	robability Distributions Hy	pothesis Testing Desi	gn of Experiment	Mistake Proofing Ergonomics
Histo	ograms & Boxplots Multi	vari Studies Confide	nce Intervals Sir	mulation TPM Automation
Reliability Analysis Understanding	aphical Analysis Scatter	Plots Correlation	Regression	Pull Flow Just in Time
Performance MSA	Run Charts 5 Whys	Root Cause Analysis	Data Snooping	Visual Management 5S
Benchmarking** Co	ontrol Charts Fishbo	ne Diagram Tree Diagr	am* SIPOC*	Waste Analysis Quick Changeover
Data collection planner* Sampling Morphological Analysis How-How Diagram** Process Redesign Time Value Map				
Check Sheets Interview	_{vs} Brainstorming SCA	MPER** Attribute Ana	al <mark>ysis Spaghetti</mark>	Diagram Value Stream Mapping
Questionnaires Focus	Groups Affinity Diagram	Relationship Mapp	oing* Flow Pro	ocess Charts Service Blueprints
Data	Mind Mapping	g* Lateral Thinking	Flowcharting	IDEF0 Process Mapping
Collection Observ	Suggestion system	ns Creating Ideas	Design	ning & Analyzing Processes

- Once you have discovered why a problem occurs, you then need to find a permanent solution to the problem.
- In many cases, you don't even need to analyze the root causes of a problem.
- □ You just need to solve the problem right away.
- These low hanging fruits may be quick wins or larger projects that may involve capital expenditure.





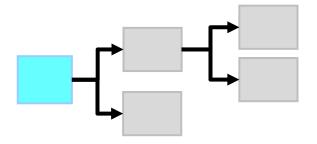
For example, after reviewing a process, you may have identified non-value added activities that you want to reduce or eliminate.

Other examples:

- Modify a procedure.
- Train employees.
- Improve management reports.
- Error proof a process.
- Change workplace layout.
- Infrastructure initiatives.



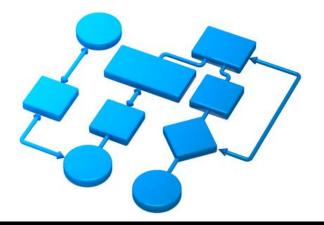
- How-How Diagram is used when seeking a practical solution to a problem.
- It works by repeatedly asking: 'How can this be solved?'.



- It provides an effective structure for organizing and sequencing possible options as well as the rewards and risks associated with each option.
- At each stage, there might be multiple answers to the 'How' questions, and the result is a hierarchical tree-structure.

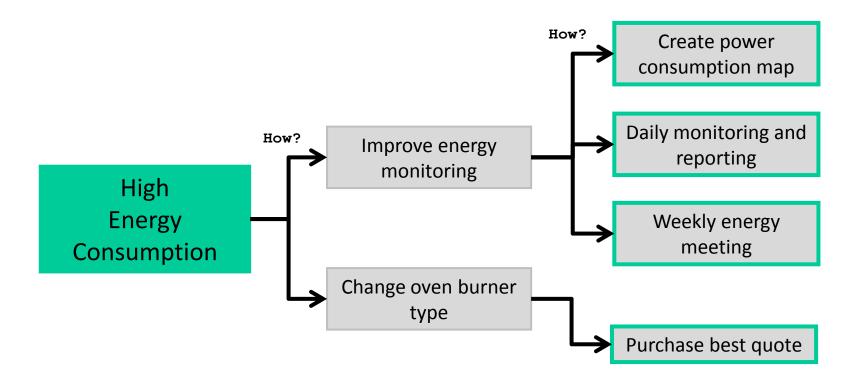
Drawing the Diagram:

- □ State the problem clearly then write it on a post-it card.
- □ Place it to the left of a large work area on the wall.
- □ Ask 'How can this problem be solved?'.
- Let the team write their answers on a post-it, then stick them up.
- □ Repeat this sequence of breaking down the problem once more.
- Keep asking "How" until you have no more answers or until you are satisfied with the improvement ideas.
- Prioritize then select the key and applicable solutions to implement.

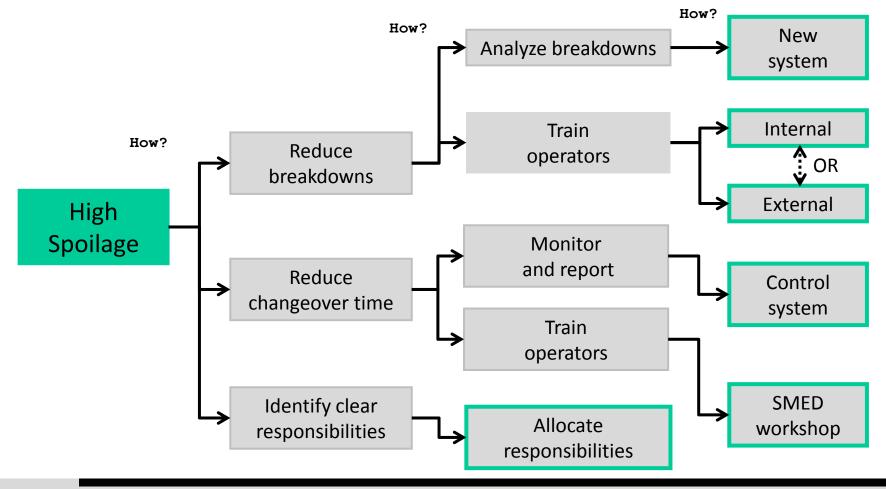




Example – Reduce the Amount of Energy:



Example – Identify Ways to Reduce Spoilage:



Further Information:

- It is similar to the 5 Why's but a different question is asked (an adaptation of the root cause analysis).
- It is especially useful when creating or exploring a plan of action.
- It helps to break down the solution into more explicit elements.
- It shows a range of possible solutions all in one place.

