Continuous Improvement Toolkit
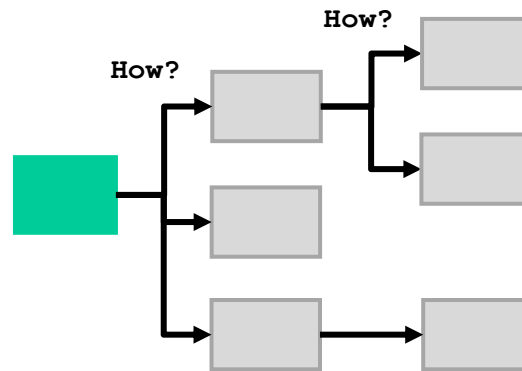
How-How Diagram

Managing Risk

PDPC

FMEA   RAID Logs

Fault Tree Analysis

Risk Assessment*

Decision Tree

Traffic Light Assessment

Deciding & Selecting

Pros and Cons

Break-even Analysis

Importance-Urgency Mapping

Cost Benefit Analysis

Force Field Analysis

Voting   Pugh Matrix   SWOT

QFD   Matrix Diagram   TPN Analysis

Kano Analysis   Prioritization Matrix

Critical-to Tree   Paired Comparison

Cause and Effect Matrix   Pareto Analysis

Planning & Project Management*

RACI Matrix   Stakeholder Analysis

PEST   PERT/CPM   Activity Diagram

Roadmaps   Project Charter   Gantt Chart

PDCA   Control Planning   Gap Analysis

Hoshin Kanri   Kaizen

Tree Diagram**   Standard work

How-How Diagram

Understanding Performance

Lean Measures   KPIs

OEE   Capability Indices

MSA   RTY   Descriptive Statistics

Cost of Quality

Reliability Analysis   Graphical Analysis

Run Charts

Control Charts

Benchmarking

Sampling

Understanding Cause & Effect

Confidence Intervals

Probability Distributions   ANOVA

Hypothesis Testing

Scatter Plot   Correlation

5 Whys   Chi-Square Test

Fishbone Diagram

# Identifying & Implementing Solutions***

Simulation   TPM

Mistake Proofing

Pull Systems   JIT   Ergonomics

Work Balancing   Automation

Bottleneck Analysis   Visual Management

Flow   5S

Value Analysis

Waste Analysis   SMED

Design of Experiments

Regression

Multi-vari Charts

Relationship Mapping*

Data Collection

Focus groups   Interviews

Photography   Check Sheets

Measles Charts

Questionnaires

Critical Incident Technique

Observations

Creating Ideas**

Brainstorming   Analogy   TRIZ***   SCAMPER***

Nominal Group Technique   Mind Mapping*

Affinity Diagram   Attribute Analysis

Lateral Thinking   Visioning

Designing & Analyzing Processes

Time Value Map   Process Redesign

IDEF0   Value Stream Mapping   SIPOC

Flow Process Chart   Process Mapping

Flowcharting   Service Blueprints

Continuous Improvement Toolkit . www.citoolkit.com

- How-How Diagram

❑ Once you have discovered why a problem occurs, you must then find a solution which will permanently fix the cause.

❑ 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.

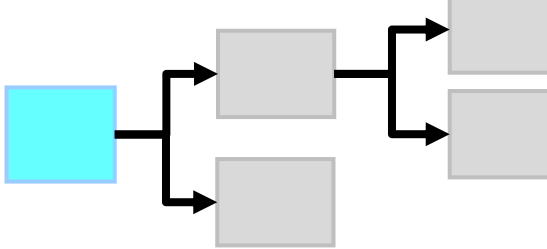❑ These low hanging fruit may be quick wins or larger projects that may involve capital expenditure.
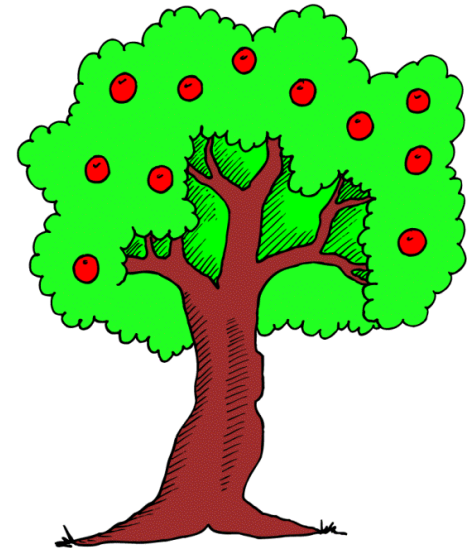
- How-How Diagram

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

❑ **Other examples may include:**
   - Modify a procedure.
   - Train employees.
   - Improve management reports.
   - Error proof a process.
   - Change workplace layout.
   - Infrastructure initiatives.

- How-How Diagram

- ❑ 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.

- How-How Diagram

Approach:

❑ 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 option.

❑ When you have completed the analysis, prioritize then select the key and applicable solutions to implement.
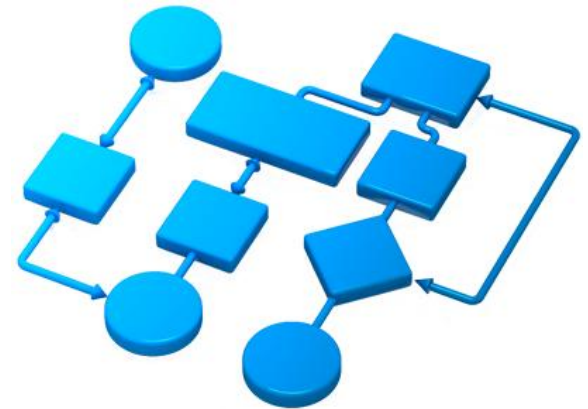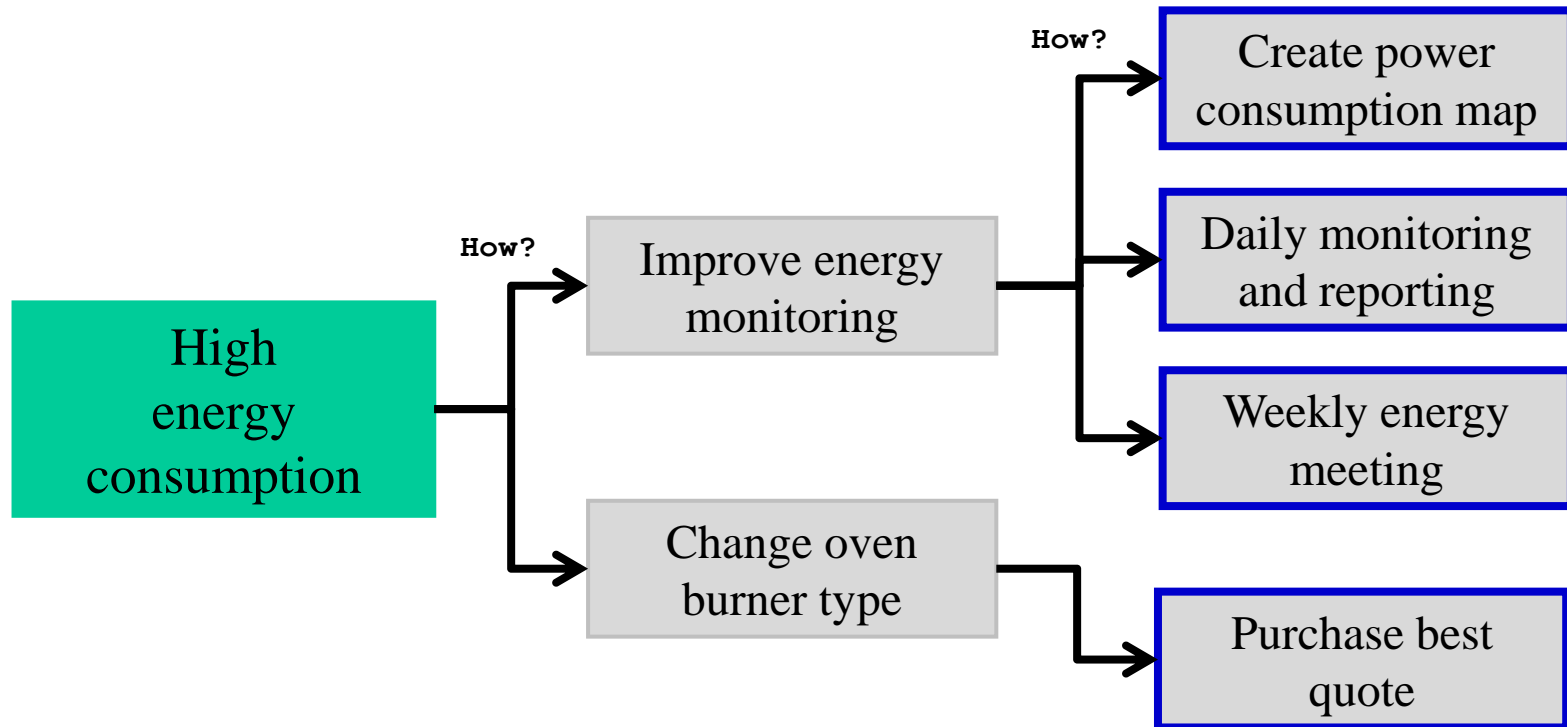
- How-How Diagram

Tips:

❑ 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.
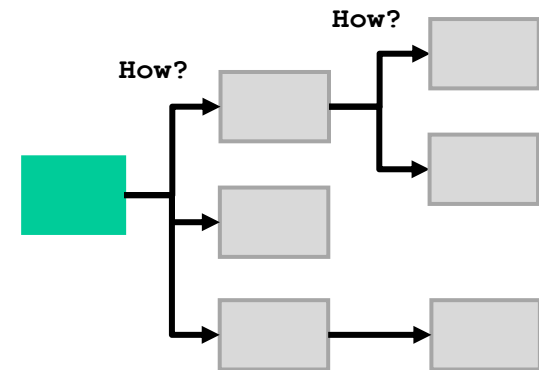
- How-How Diagram

Example:

- How-How Diagram

Example: