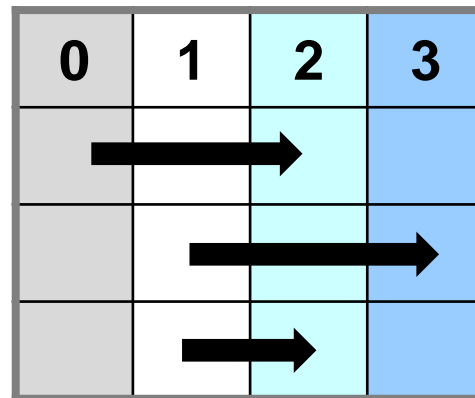


# Continuous Improvement Toolkit

## Improvement Roadmaps



## Managing Risk

PDPC  
FMEA RAID Logs  
Fault Tree Analysis  
Risk Assessment\*

## Deciding & Selecting

Pros and Cons  
Break-even Analysis  
Force Field Analysis  
Decision Tree  
QFD  
Kano Analysis  
Critical-to Tree  
Cause and Effect Matrix  
Confidence Intervals  
Probability Distributions  
Graphical Analysis  
Run Charts  
Control Charts  
Sampling  
Brainstorming  
Analogy  
Nominal Group Technique  
Affinity Diagram  
Attribute Analysis  
Lateral Thinking  
Visioning

## Planning & Project Management\*

Importance-Urgency Mapping  
Cost Benefit Analysis  
Pugh Matrix  
Voting  
TPN Analysis  
Prioritization Matrix  
Paired Comparison  
Pareto Analysis  
ANOVA  
Hypothesis Testing  
Scatter Plot  
Correlation  
5 Whys  
Chi-Square Test  
Fishbone Diagram  
TRIZ\*\*\*  
SCAMPER\*\*\*  
Mind Mapping\*  
Flowcharting

Roadmaps

RACI Matrix  
Stakeholder Analysis  
PEST  
PERT/CPM  
Activity Diagram  
Project Charter  
Gantt Chart  
PDCA  
Control Planning  
Gap Analysis  
Hoshin Kanri  
Kaizen  
How-How Diagram  
Standard work  
Simulation  
TPM  
Mistake Proofing  
Pull Systems  
JIT  
Ergonomics  
Work Balancing  
Automation  
Bottleneck Analysis  
Visual Management  
Flow  
Value Analysis  
5S  
Waste Analysis  
SMED  
Time Value Map  
Process Redesign  
IDEF0  
Value Stream Mapping  
SIPOC  
Flow Process Chart  
Process Mapping  
Service Blueprints

## Understanding Performance

Benchmarking  
Focus groups  
Photography  
Observations  
Data Collection

## Understanding Cause & Effect

Design of Experiments  
Regression  
Multi-vari Charts  
Relationship Mapping\*

## Identifying & Implementing Solutions\*\*\*

Tree Diagram\*\*  
Standard work  
Mistake Proofing  
Pull Systems  
JIT  
Ergonomics  
Work Balancing  
Automation  
Bottleneck Analysis  
Visual Management  
Flow  
Value Analysis  
5S  
Waste Analysis  
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Value Stream Mapping  
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Flow Process Chart  
Process Mapping  
Service Blueprints

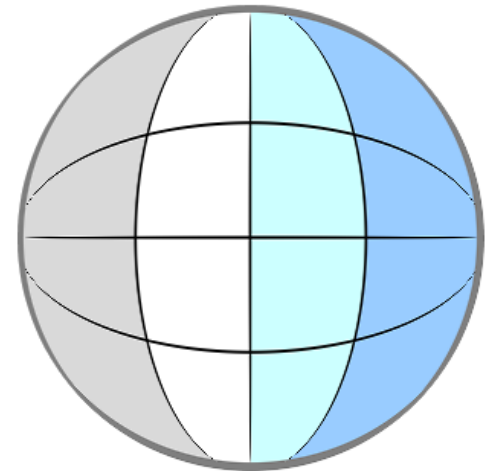
## Creating Ideas\*\*

## Designing & Analyzing Processes

# - Improvement Roadmaps

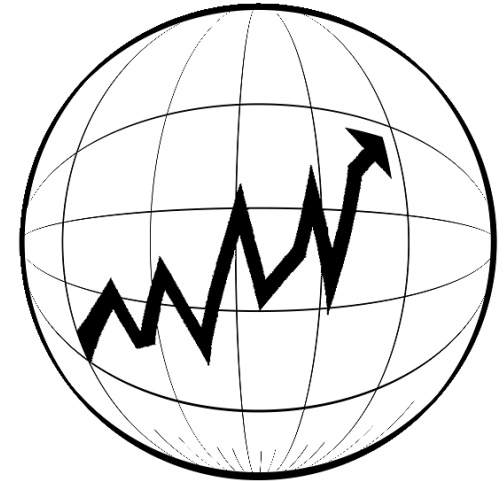
- ❑ Our long-term project management and process improvement can be very complicated.
- ❑ We can drive with no fixed destination or time constraints.
- ❑ We need to know and understand where we are now, and then find the fastest and simplest way to achieve our targets.

*A map can always help to  
find our way!*



# - Improvement Roadmaps

- ❑ **An Improvement Roadmap** is a simple mechanism for achieving improvements.
- ❑ It is a document that will guide us through the implementation process of a long-term goal or project.
- ❑ It illustrates the best possible routes to get to where we want to go
- ❑ It will indicate if we are in the correct way at the right time.
- ❑ It will give the team a good overview of the actual situation of the implementation, making sure that all are moving forward toward obtaining excellence.



# - Improvement Roadmaps

**A good improvement roadmap should answer:**

- ❑ Where we are now?
- ❑ Where we want to be?
- ❑ What is the time needed to reach our goals?
- ❑ What performance indicators are needed to assess the progress against the established goals and milestones?



# - Improvement Roadmaps

Improvement Goals	Where we are now	Where we want to be in ...	Where we want to be in ...	Where we want to be in ...	Measurables

*Measurables are those indicators that allow you to actually assess your progress against your milestones.*

# - Improvement Roadmaps

- ❑ **An action plan** per goal is needed to break down big goals into smaller and workable activities.
  
- ❑ **A good action plan:**
  - Outlines all activities and their order.
  - Outlines time periods.
  - Outlines responsibilities.
  - Highlights any particular needs, issues or obstacles to overcome.
  - Identifies where to focus efforts for greater impact.

	May			Jun			Jul		
	1-10	11-20	21-30	1-10	11-20	21-30	1-10	11-20	21-30
Activity 1	█	█							
Activity 2	█	█	█	█					
Activity 3			█	█					
Activity 4				█	█	█	█		
Activity 5							█	█	
Activity 6								█	█
Activity 7									█

# - Improvement Roadmaps

## Example:

Improvement Goals	Where we are now	Where we want to be in 6 months	Where we want to be in 12 months	Where we want to be in 18 months	Where we want to be in 24 months	Measurables
Spoilage reduction	Spoilage rate is too high (>8%)	Defect awareness program to all	Breakdown analysis system in place	Spoilage rate less than 5%	Spoilage rate less than 4%	Spoilage rate
Internal Audit development	Internal audit is not effective enough	Current audit practices reviewed and improved	Audit system covers all functional areas	Audit score above 80%	Audit score above 90%	Audit score
5S improvement	Poor workplace organization & conditions	5S awareness program to all	5S procedures & practices in place	5S audit score above 75%	5S audit score above 85%	5S audit score



# - Improvement Roadmaps

## Example:

Improvement Goals	Where we are now	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Measurables
Spoilage reduction	Spoilage rate is too high (>8%)	Conduct defect awareness program to all		Develop and implement a breakdown analysis system		Spoilage rate
Internal Audit development	Internal audit is not effective enough	Review and improve the current audit practices				Audit score
5S improvement	Poor workplace organization & conditions	Conduct 5S awareness program to all				5S audit score