

Consistency of Purpose

Connecting Toyota Kata to Strategic Deployment and Obeya Room

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THE SHINGO MODEL



476

4 TEAMS OF GEMBA

MANAGEMENT



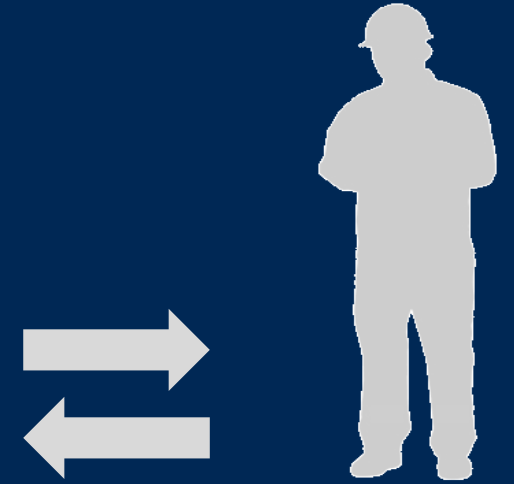
Group Leader
Team Members



VS Coordinator



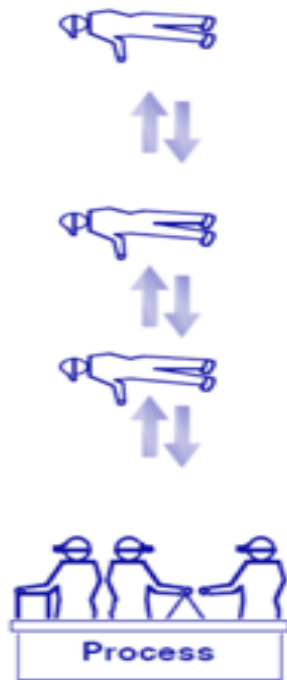
VS Manager



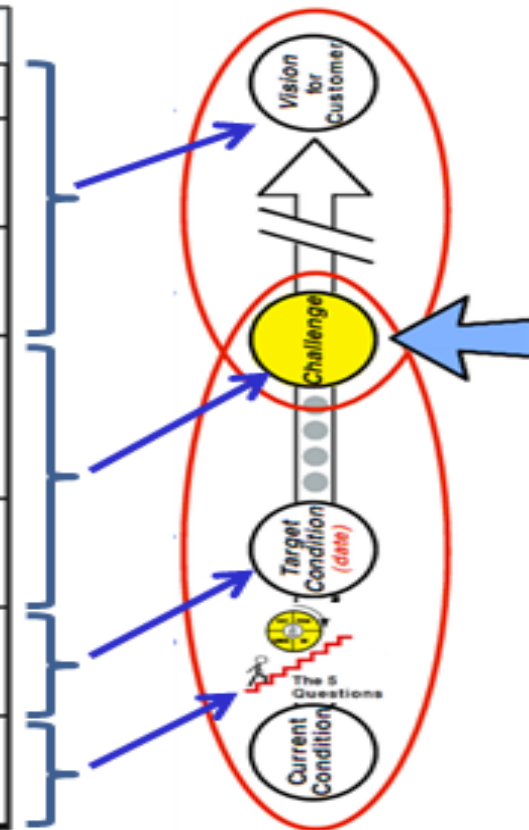
Director



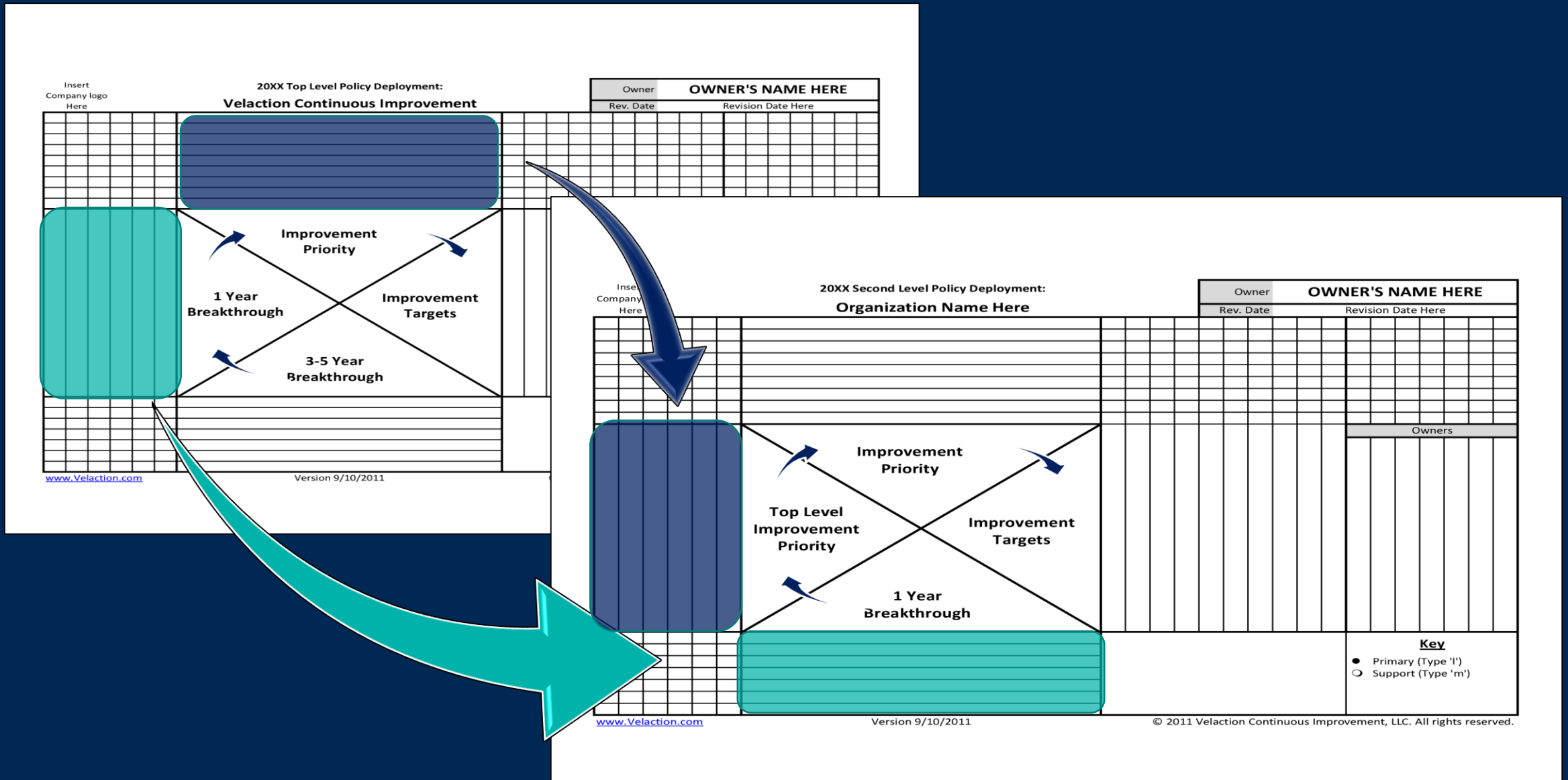
7 LEVELS OF EXPERIMENT



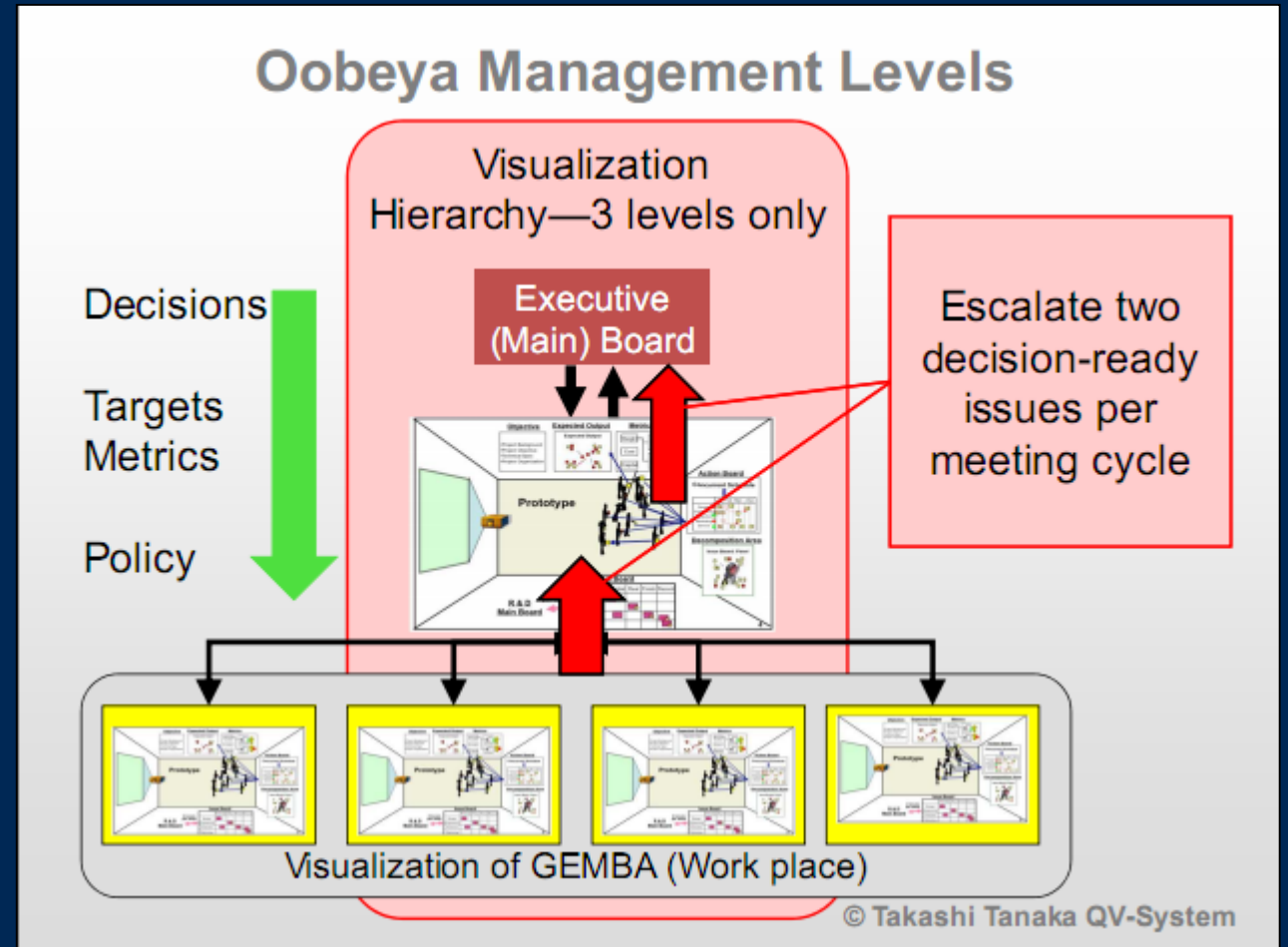
4 Teams		7 Experiments (PDCA)	
1	Hoshin Team (executive) (Directors)	1	5-10 Years
		2	3-5 Years
		3	Annual BT 1-3 Year
2	Tactical Teams (Directors) (VS Managers)	4	First Year initiatives Future State Map VSM
3	Operational teams (VS Managers)	5	(Kata Challenge) 6 months
4	Action Teams (VS Coordonnator) (Grp Leaders)	6	Kata Target Condition 6 weeks
		7	Kata Daily PDCA



HK X-MATRIX LEVEL 1 – LEVEL 2



HOSHIN KANRI – OBEYA ROOM



OBEYA ROOM – HK LEVEL 1 AND LEVEL 2

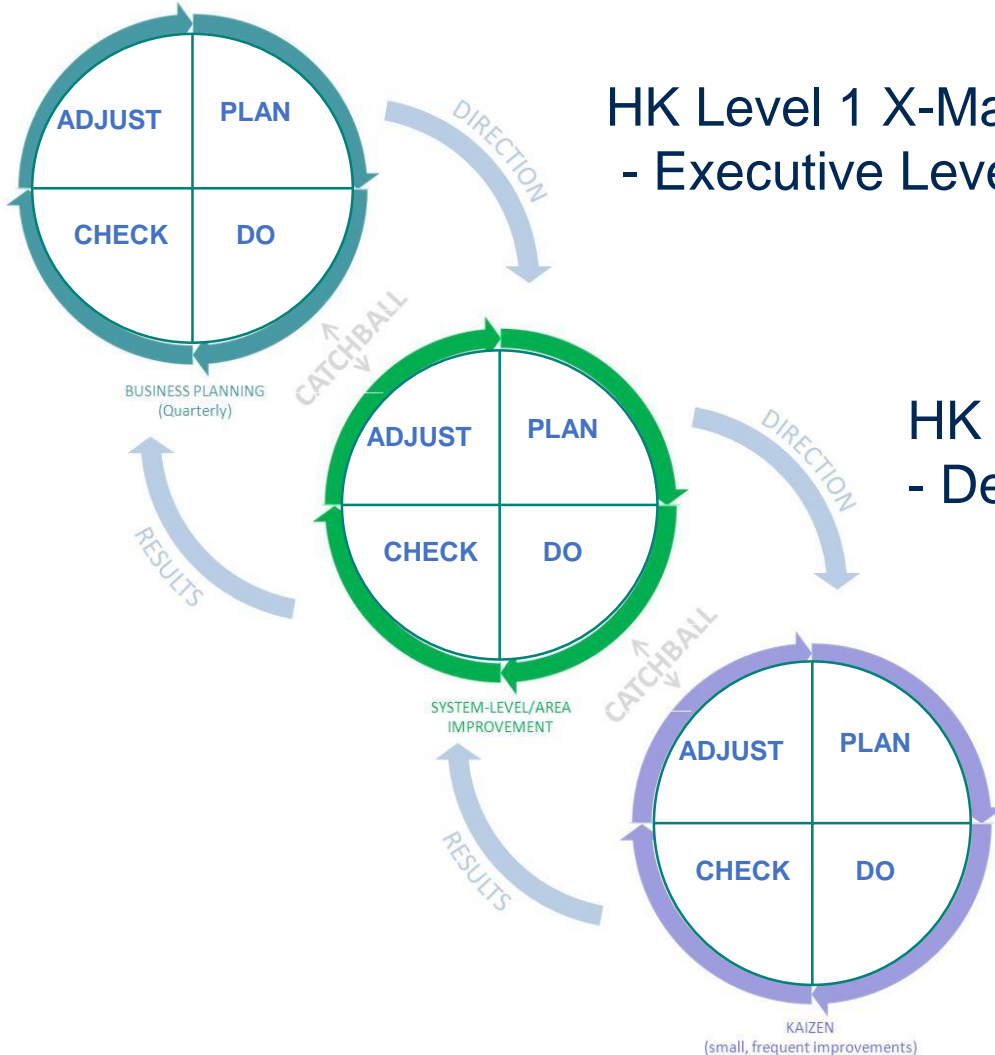
HK Level 1 X-Matrix – Vision
- Executive Level



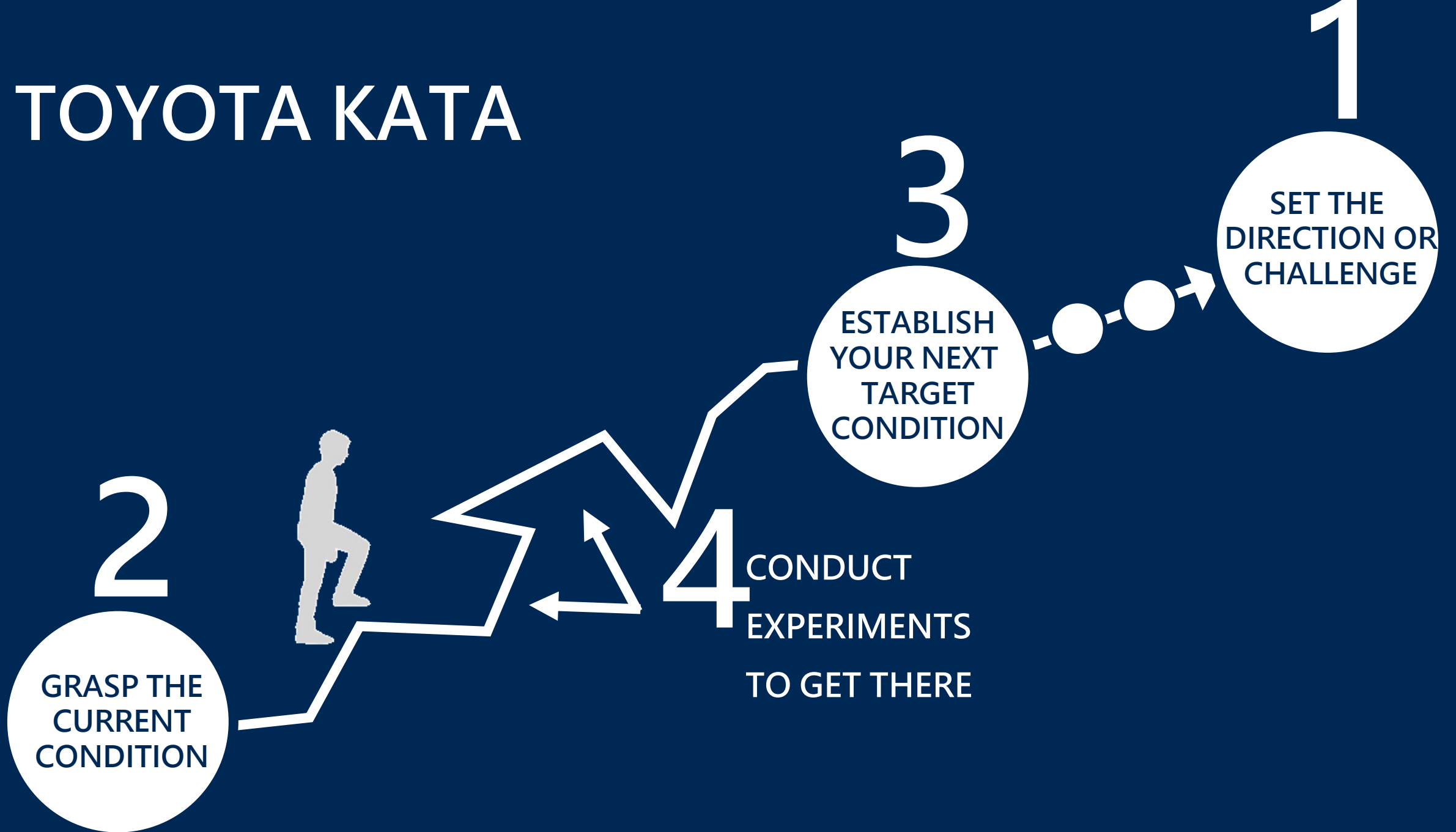
HK Level 2 – X-Matrix – Challenge
- Dept Level



Daily PDCA
– Process Level



TOYOTA KATA



TOYOTA KATA BOARD

Work Cell Post-SMT

Challenge: Wouldn't it be nice if we could improve the overall efficiency by 10% to meet Signapoint's growth strategy?

FUTURE STATE MAP

V51 - Future State VSM - 22-Apr-2011

CURRENT/TARGET CONDITION

Process	Post-SMT	Current Condition	Target Condition	Overarching Breakthrough Challenge
Task Time	5:07	5:05	4:50	
WIP	4:37	4:35	4:21	
# Shifts	2	3	3	
Process steps & sequence	See Block Diagram	Block Diagram		
Batch size		Max 5	Total max 5	
Where WIP accumulates		max 7		
Number of operators		2	2	
% shift cycle time (last step)		+20%	+10%	
Process metrics	See Run Chart	Changeover > 5min	Changeover < 5min	
Setup time	See Show Chart	FPY > 95%	FPY > 95%	
Machine capacity		FVT Below 4:05	FVT Below 3:50	
Calculated # of operators	See Show Chart			
Actual output / shift	See Run Chart	70 signals	80 signals	
Overhead	0 hrs	0 hrs		

The Five Questions

- What is the Target Condition?
- What is the Actual Condition now?
- What Obstacles do you think are preventing you from reaching the target condition? Which "Last" step are you addressing now?
- What is your "Next Step" (your PDCA experiment)? What do you expect?
- What can you do next time you have learned from taking that step?

Reflect on the Last Step Taken

- What was your Last Step?
- What did you expect?
- What actually happened?
- What did you learn?

JIDOKA PROCESS

BLOCK DIAGRAM

RUN CHARTS

PLAN

JIDOKA PULL'S

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Count	50	67	88	29	50

OBSTACLE PARKING LOT

Obstacle Parking Lot

Obstacle	How can you measure that?
ES test fails	1
EA test fails	3
Strong noise	
ES test station down	4
EA test station down	
Wrong signposts	1

PDCA SHEETS

RECORD (Each row = one experiment)

Process	Learner	Coach
What do you expect?		
What happened?		
What we learned		

DO

CHECK

ACT

STANDARDIZED WORK AUDIT

V51 - Post-SMT

OUTCOME METRIC: OUTPUT/SHIFT

PROCESS METRIC: FPY

Date	Shift	ACQ FPY %
Monday	Nights Days Evenings	
Tuesday	Nights Days Evenings	
Wednesday	Nights Days Evenings	
Thursday	Nights Days Evenings	
Friday	Nights Days Evenings	
Week: 38	Total	99%

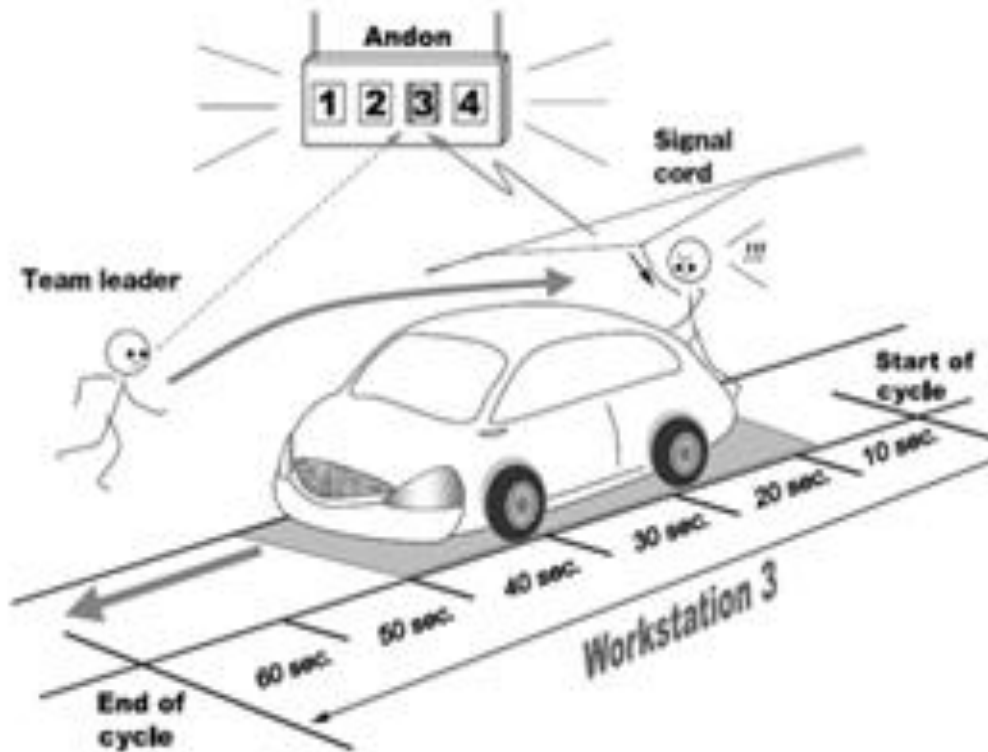
PROCESS METRIC: C/O

Category	Count	Percentage
OK		
Not OK		

HOW DO WE CONNECT EVERY EMPLOYEE TO THE CONTINUOUS IMPROVEMENT STRUCTURE?



JIDOKA – STOP THE LINE PROCESS



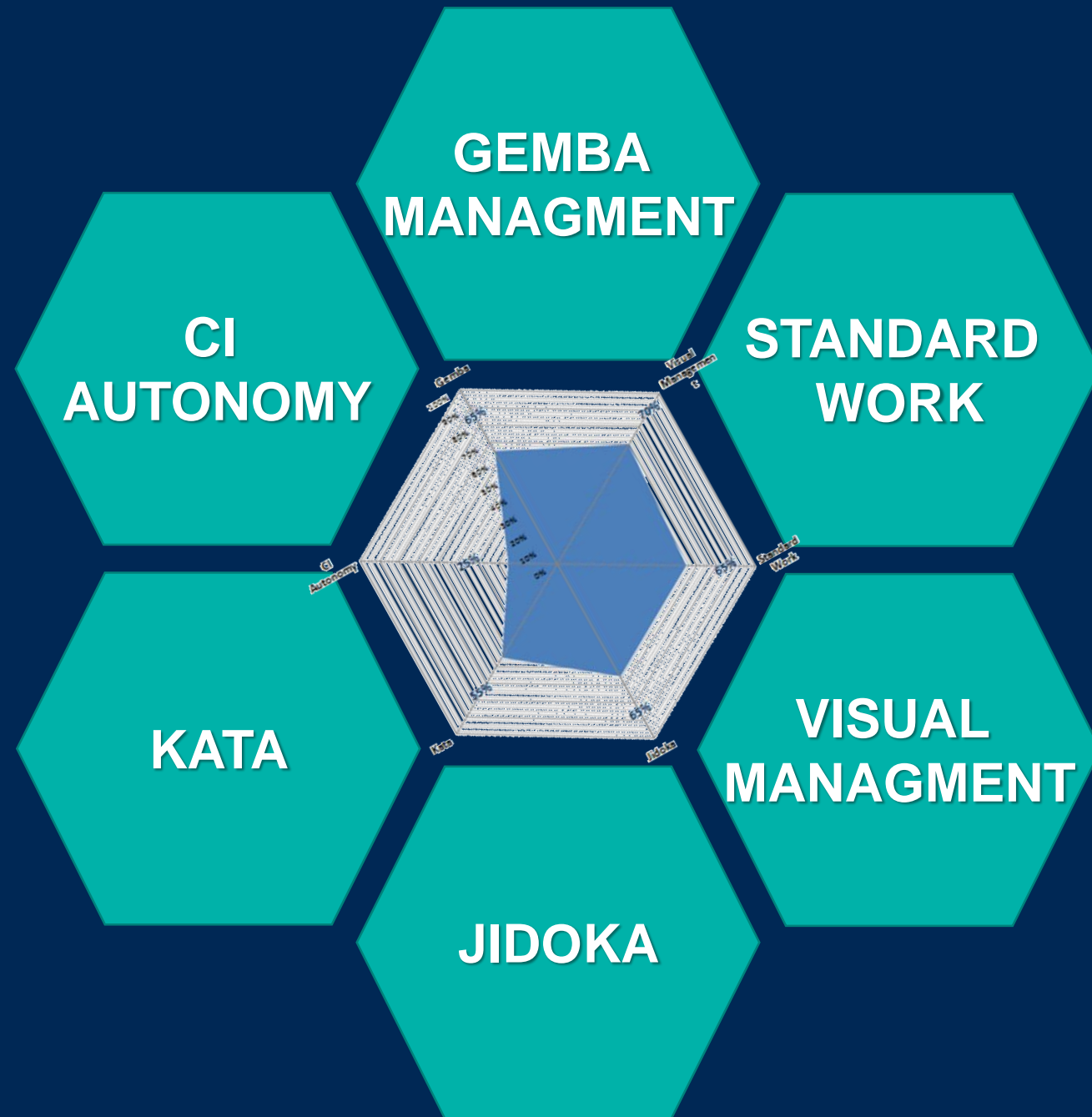
OBSTACLES PARKING LOT – CONNECTION TO KATA

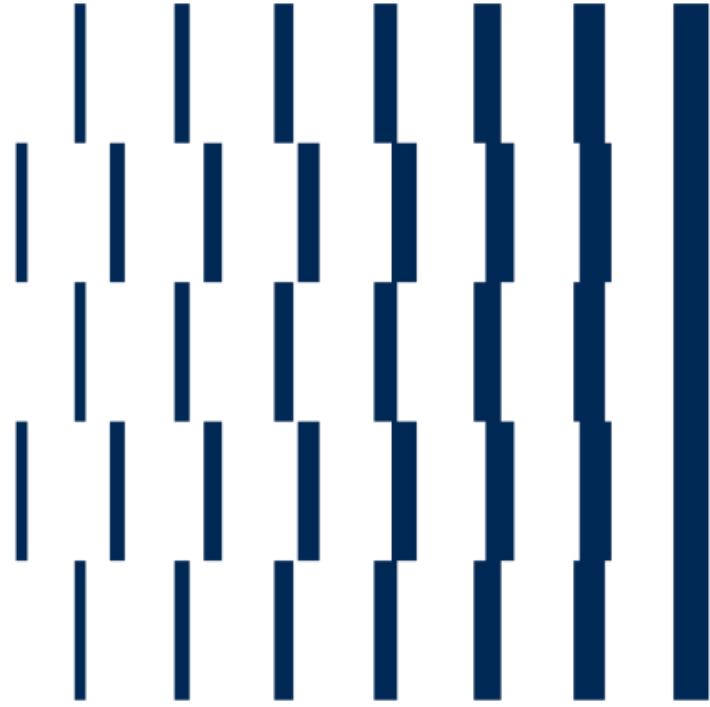
Obstacle	How can you measure that?	
	Week	Month
• <u>Waiting for Wave to cool down</u>		1
• <u>Change overs</u>		13
• <u>GPS test station issues</u>		1
• <u>E3 test station fails</u>	 	4
• <u>E4 test station fails</u>		18
• <u>ICT fails</u>		3
• <u>Damaged E3 chassis</u>	1	9
• <u>2028's solder issues @ wave</u>	1	1
• <u>High variation in cell</u>		8
• <u>Cell work content not balanced</u>		
• <u>Large batch size @ wave</u>		

LEARNER & OPERATORS COMPLETE EXPERIMENT TOGETHER

PDCA CYCLES RECORD <i>(Each row = one experiment)</i>					
Obstacle:		Process:			
		Learner:	Coach:		
Date, step & metric :	What do you expect?	Do a Coaching Cycle	Conduct the Experiment	What happened :	What we learned

6 CRITICAL ELEMENTS





S I G M A
P O I N T