

Enabling a Problem Solving Culture: Observations from Toyota and Beyond



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CCI

Demystifying Lean: Three Observations

1. When it works Lean is a Culture
2. The People are absolutely the key
3. The Leader's Role is to engage and then enable

It's not important what you call it:

- **Process Improvement**
- **Continuous Improvement**
- **World Class Practices**
- **Or Lean**

We are all trying to accomplish two basic things:

- **Figure out how to make our operations, units and processes work as they are supposed or need to**
- **And constantly looking for improvements to make them work better and better**

What is this thing called LEAN ...as it comes from Toyota?



“LEAN is a set of concepts, principles and tools used to create and deliver the ***most Value*** from the ***Customers’ perspective*** while consuming the ***fewest resources*** by fully utilizing ***the skills and knowledge*** of those who do the work.”

Observation 1:

When Lean works it's a culture

...a culture of problem solving
for continuous improvement

Lean is ultimately Problem Solving

*...by the people working in an
operation as part of their jobs*

What about all that other stuff?

- 4/5/6 S
- Single-Piece Flow
- Level Production (Heijunka)
- Built-in Quality (Jidoka)
- Standardized Work
- Supermarkets
- Cells
- Kanban

They are solutions Toyota developed and perfected (through continuous improvement) to solve the problems of creating flow, reducing lead time and eliminating waste in their operations

Lean is Problem Solving

In pursuit of two business Goals:

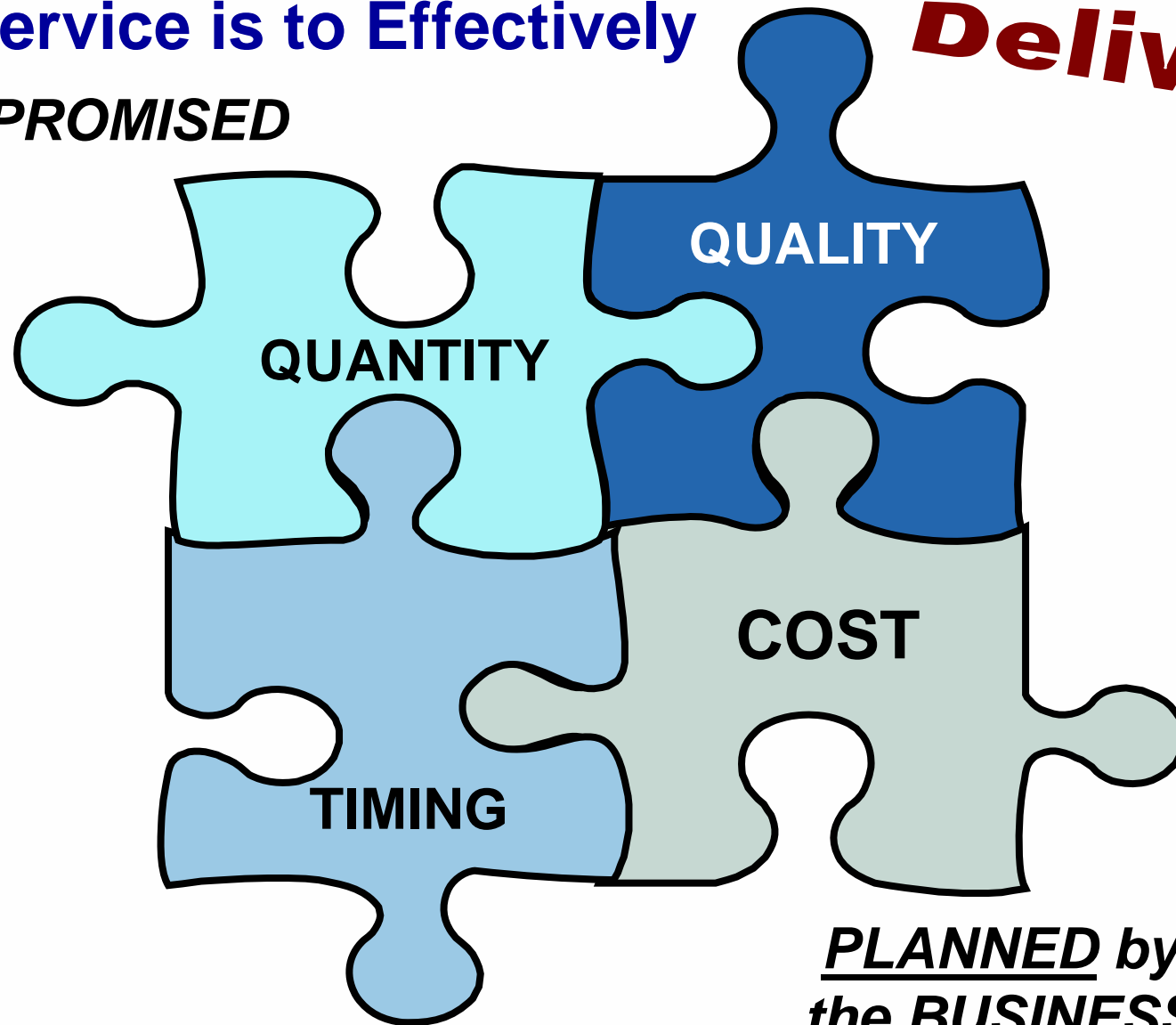
1. **Effectiveness** in delivery of value to the customer (what was promised, when, where, in the quantity and the quality promised)
2. The greatest **Efficiency** possible in the delivery of that value for the benefit of both the customer and the business

Start from VALUE to the Customer

The idea is that what we provide the Customer, whether external or internal, whether we are providing a product or a service, should be **WHAT the Customer Needs and Values** and meets his or her requirements...

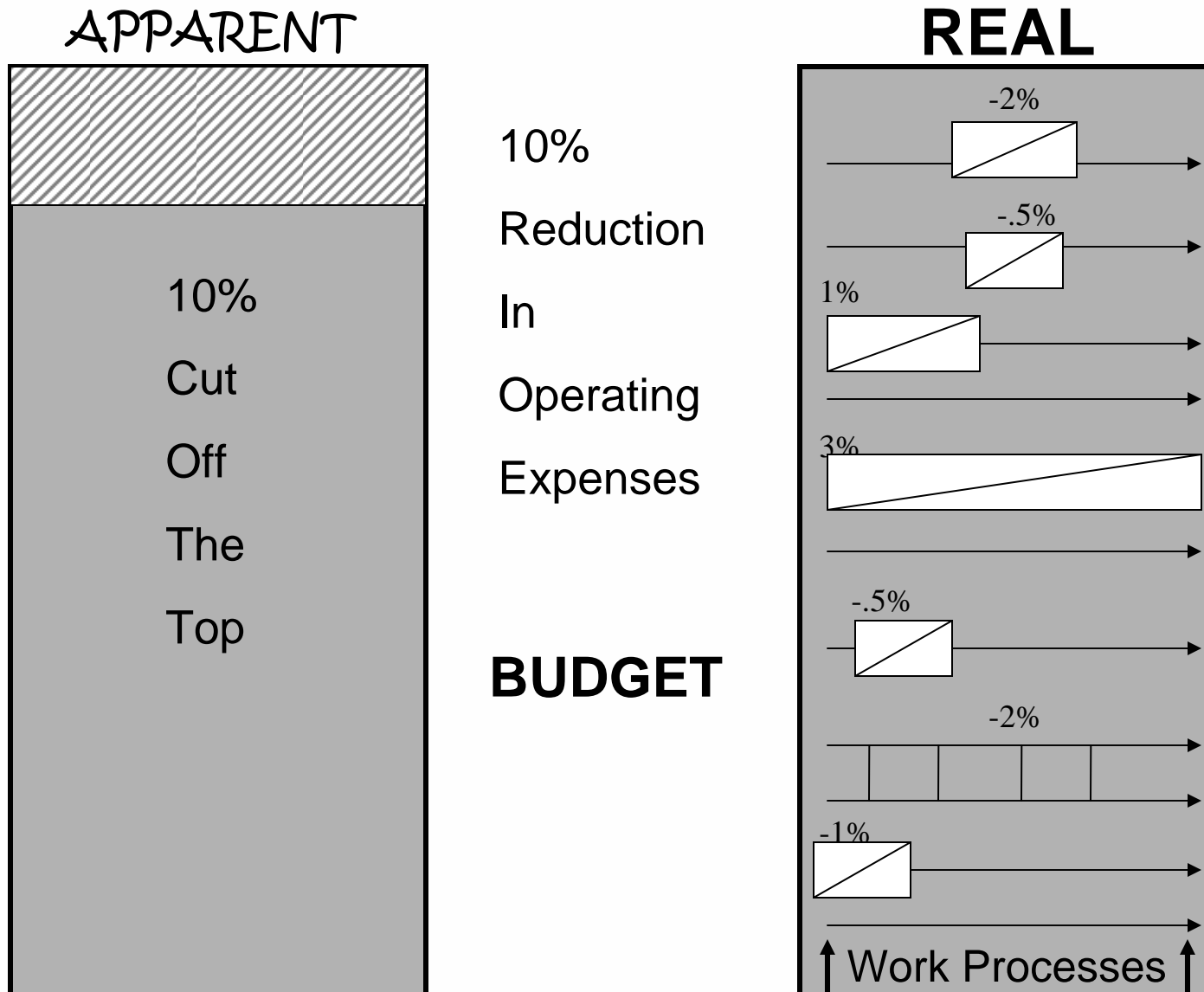
...which means he or she can get on with his or her work or business without interference or unnecessary delay

The Purpose of a Work Process in a operation
or service is to Effectively **Deliver**
the PROMISED



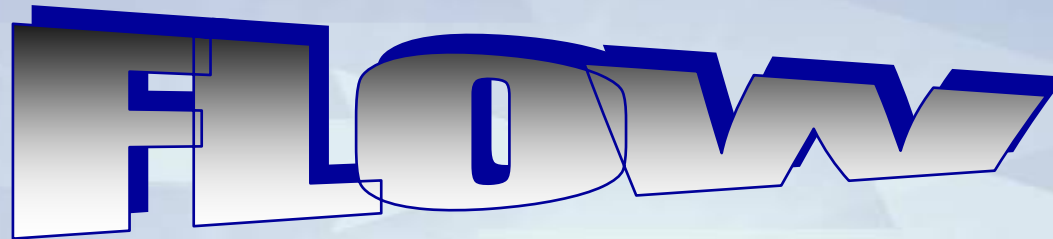
PLANNED by
the **BUSINESS**

EFFICIENCY



How to Assure Delivery that satisfies the Customer...and benefits the business

Focus on



FLOW

- **as much as possible,**
- **as continuously as possible**
- **and with as much first-time quality as possible**

What Does It Take To *FLOW* Work and Be More EFFICIENT in IT?

Taiichi Ohno, founder of TPS, described Toyota's approach very succinctly:

All we are doing is looking at the time line from the moment the customer gives us an order to the point when we collect the cash. And we are reducing the time line by removing the non-value added WASTES. (Ohno, 1988)

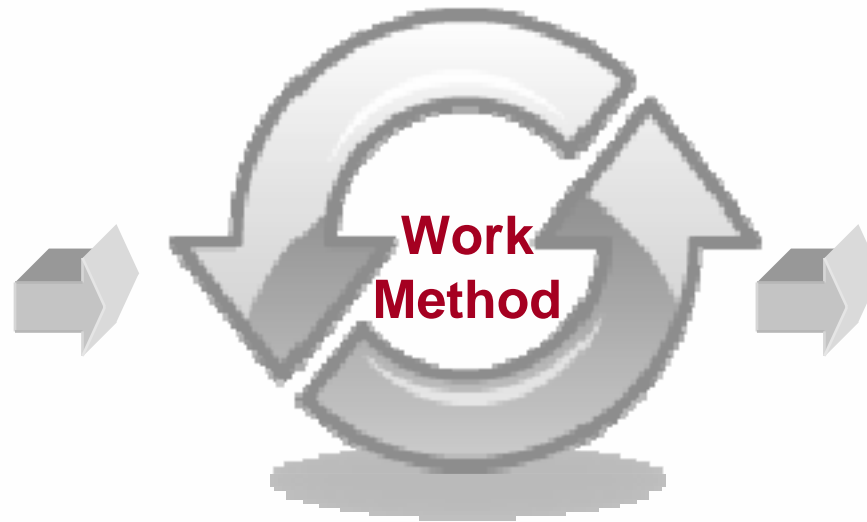
WASTE
in MOST
Work
Processes
looks like...

- Lots of Inventory Sitting around
- Missing **INFORMATION**
- Out-dated Specifications
- Missed Deliveries (timing & quantity)
- Delays in Deliveries
- **Quality “Spills”**
- Redoing/ Reworking/ Correcting
- Requirements Changes
- Missed **HANDOFFS**
- Waiting for Input, Feedback, Approval
- Sitting in Queue or Inbox
- Interruptions
- Expediting

INPUTS

Man
Machine
Material

PROCESSES

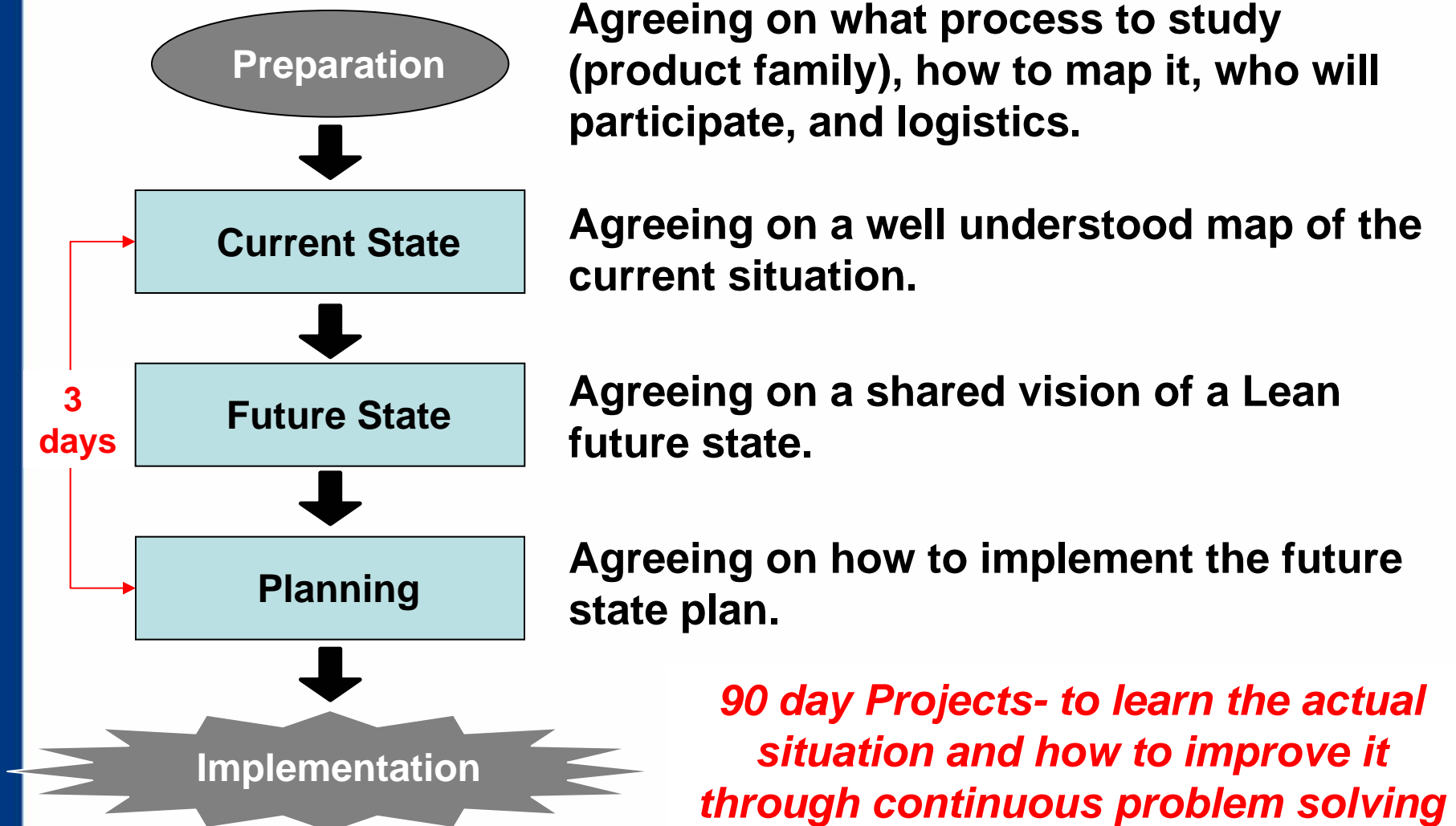


OUTPUTS

Product or
Service
*of Value
to the
Customer*

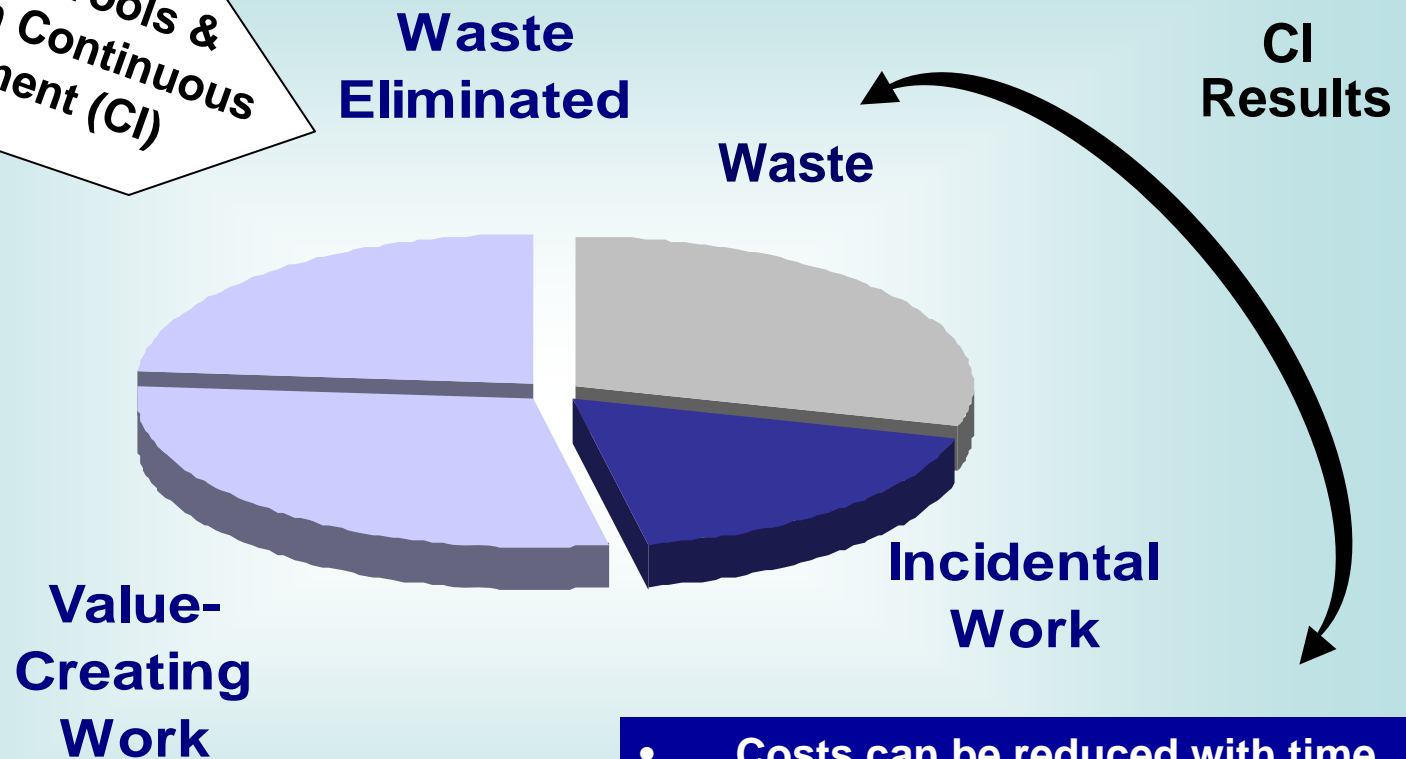
*The focus of a TOYOTA Operation is to increase
EFFECTIVENESS and **EFFICIENCY**
of Work Method by eliminating Waste while
maintaining delivery of CUSTOMER VALUE*

Applying the Value Stream Mapping Tool



Increasing Value to the Company with Lean by Working on the WORK

Apply Lean Tools &
Principles in Continuous
Improvement (CI)



- Costs can be reduced with time & resources saved
- Time & resources saved can be used as increased capacity

Observation 2:

The People who do the work are
the key to success with Lean

... if you let them help with the
problem solving

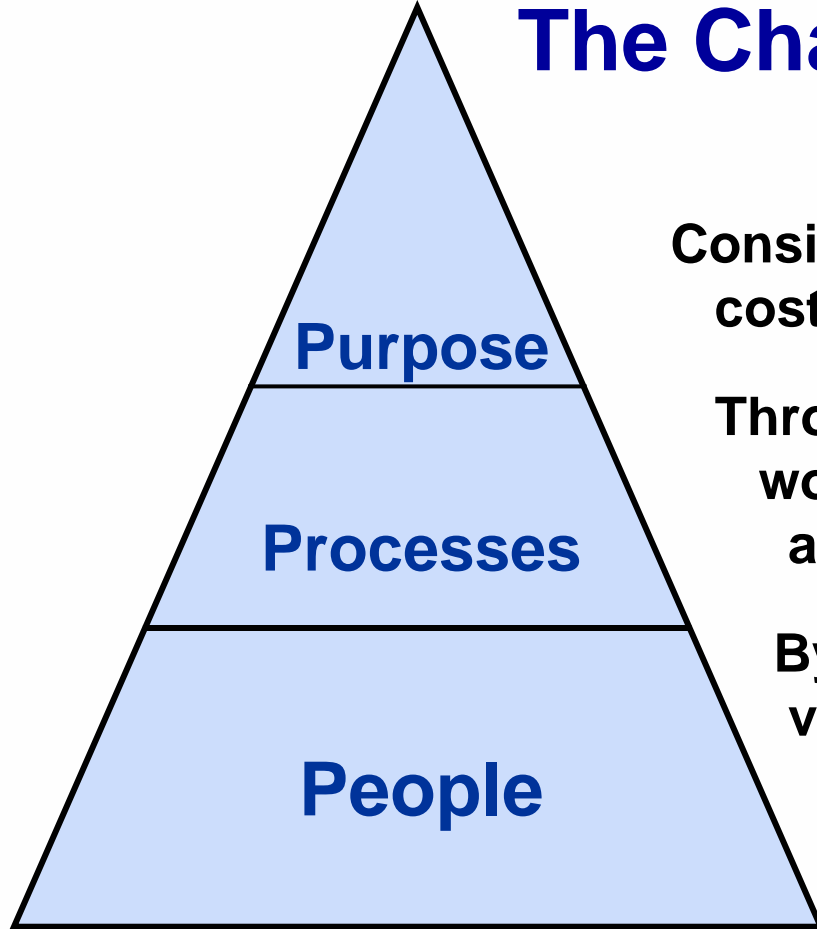
Lean Thinking: The Five-Step Approach Recommended by Womack and Jones, 1996

1. Find a ***SENSEI***
2. Find (become) a Change Agent
3. Seize or create a crisis
4. Pick an area and an aim and get started
5. Map your value streams

*From Lean Thinking
Simon & Schuster, 1996*

Just Do It!...yourself

The Challenge of Lean, 2006



Consistently provide value to customers cost-effectively in order to prosper.

Through the primary value-creating work flows for design, make, and ship, and the streams that support them.

By engaging employees who do the value creating work (including those in the support processes) in continuous problem solving to sustain and improve the processes.

Defining purpose & establishing processes while aligning people in an integrated business system is the central task of management in Lean

Jim Womack, 2007

“The strength of the Toyota Production System is the way it develops people.

That is why I say the “T” in TPS stands for “**Thinking**” as well as “Toyota.”

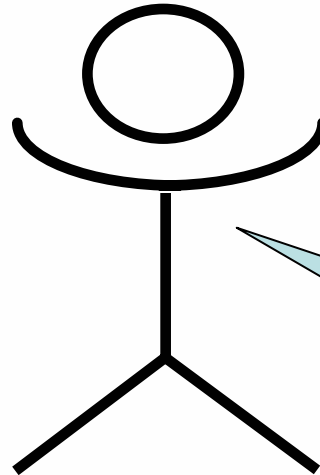
Developing people is the starting point for *monozukuri* (making things of value) at Toyota.”

Teruyuki Minoura
Senior Managing
Director, Toyota

The Thinking Production System

Best Quality - Lowest Cost - Shortest Lead Time
Best Safety - Highest Morale

Continuous
Process
Improvement



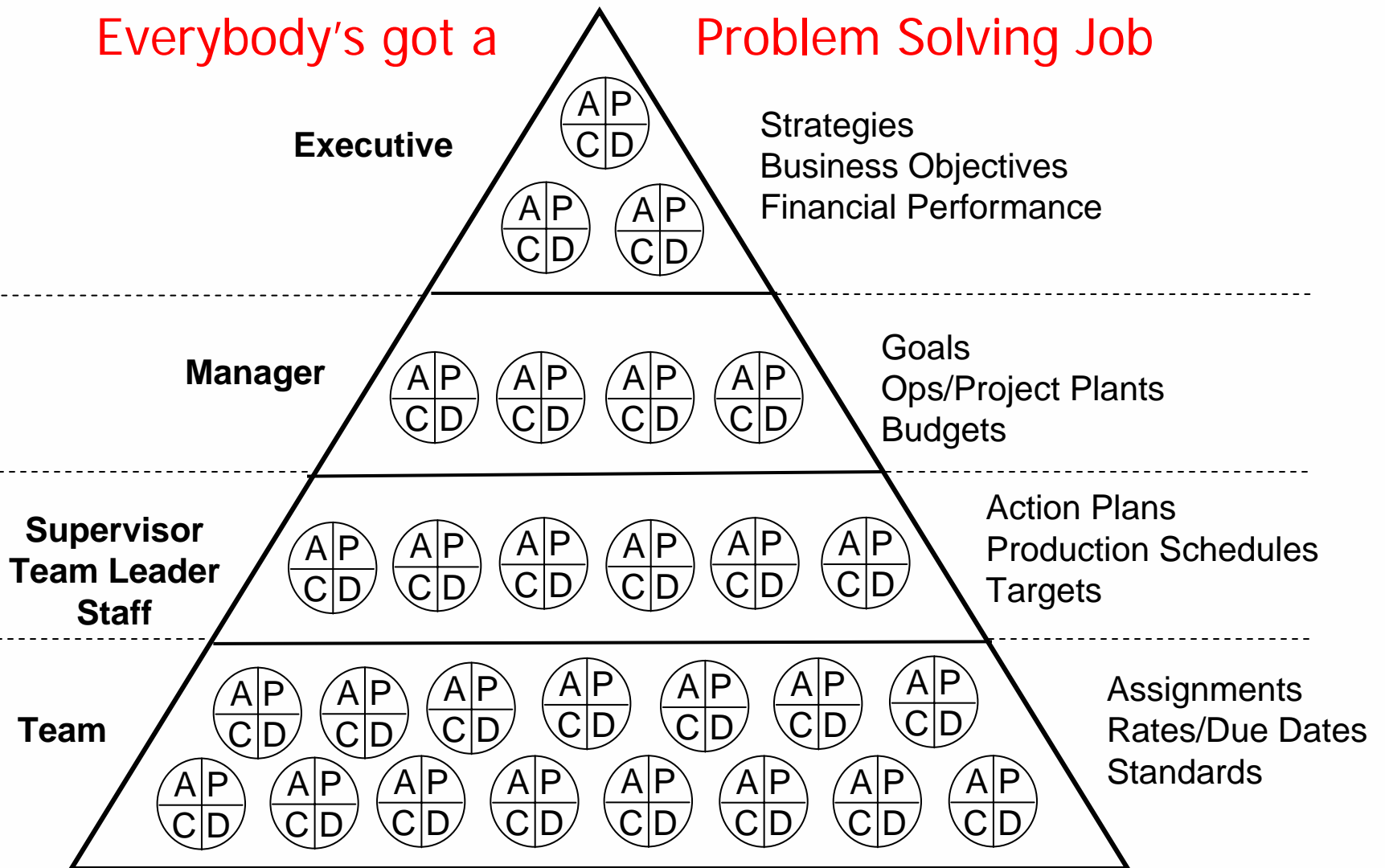
Respect
for
People

Getting people
to think and
take initiative is
the key!

PDCA Problem Solving/Learning Cycles

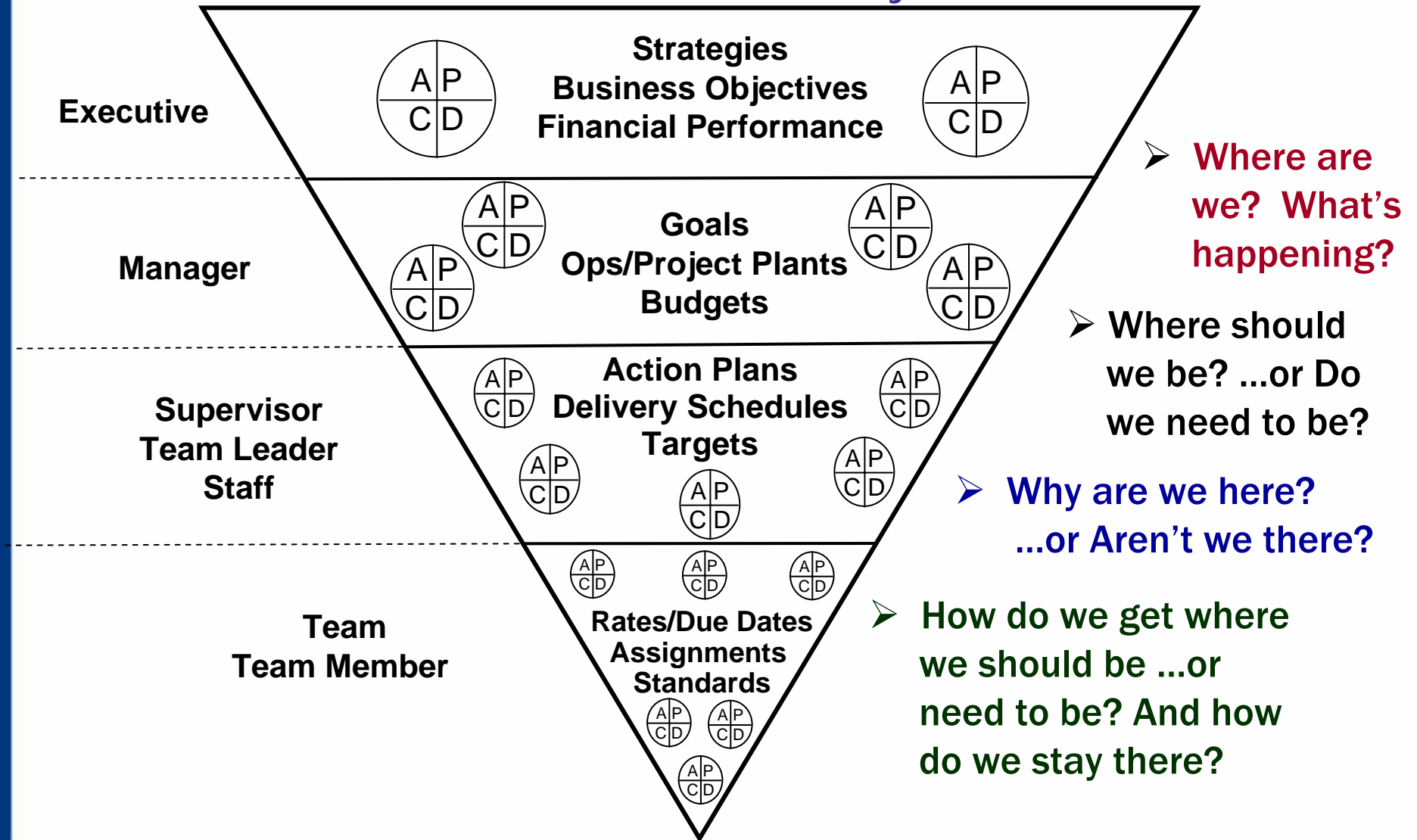
Problem Solving by Level

Everybody's got a **Problem Solving Job**



Problem Solving by Level

The QUESTIONS Are Basically the Same



Who are the Real Experts?

- A team of specialists collected data for 6 months
- They wanted to learn why operators processing scanned documents opened & closed many files immediately
- Extensive analysis of their data did not reveal the reason
- The operators participated in a value stream improvement workshop and mapped their process
- They identified the sequence of the files coming to their stations as a major delay in their work
- To process documents they need the guidelines on an adjacent screen
- When a file was a different type they had to find and load different guidelines
- They recommended grouping documents by type and sending similar ones in sequence
- Their average processing time improved by 27%

What does Toyota mean by *Respect for People?*

RESPECT for their:

- Desire to contribute their time and effort in value-added ways
- Willingness to take responsibility and work for the best for the business
- Ability to think and solve problems within the scope of their work

And why is this a big deal for Toyota?

Discretionary Effort

“ You hire my time and are due a full day and a good effort. You can define my responsibilities, program my activities and evaluate my performance. You can control what you see. But I can decide how far I go beyond that and for what.”

Observation 3:

The Lean leader's role is to
Engage and Enable the people
who do the work

...and coach and develop
their problem solving thinking

What does motivate people to work for the common good ?

- Money?
- Recognition?
- Power?

I would like to suggest:

Based on my personal experience and observations in Toyota I believe that what is most engaging and motivating for an employee is having meaningful responsibility.

From my personal experience:

- Before Toyota – a manager with a staff and a budget and an office
- In Toyota – for the first 7 years, none of those things but a greater sense of responsibility

Upon reflection, I think...

at the fundamental level what is engaging and motivating about role and responsibility in Toyota is that whoever you are, wherever you are, you are expected to be a Problem Solver.

Back to the original question:

How do you engage employees
...and keep them motivated?

**Give them responsibility
...and don't take it away.**



So what does this have
to do with Leadership?



Let's try an experiment

The Traditional Model of Coaching

1. Specify the performance discrepancy.
2. Get agreement a problem exists.
3. Give feedback.
4. Ask for solutions; provide suggestions.
5. Agree on next steps and follow up.

“Focus on the problem, not the person.”

But who is the Problem Solver here?

Mr. Cho's Description of Coaching

- ❖ Give him or her the job as their own.
- ❖ Let them think; let them try.
- ❖ Help him or her see.
- ❖ Force reflection.

**Coaching for Development
through the Job**

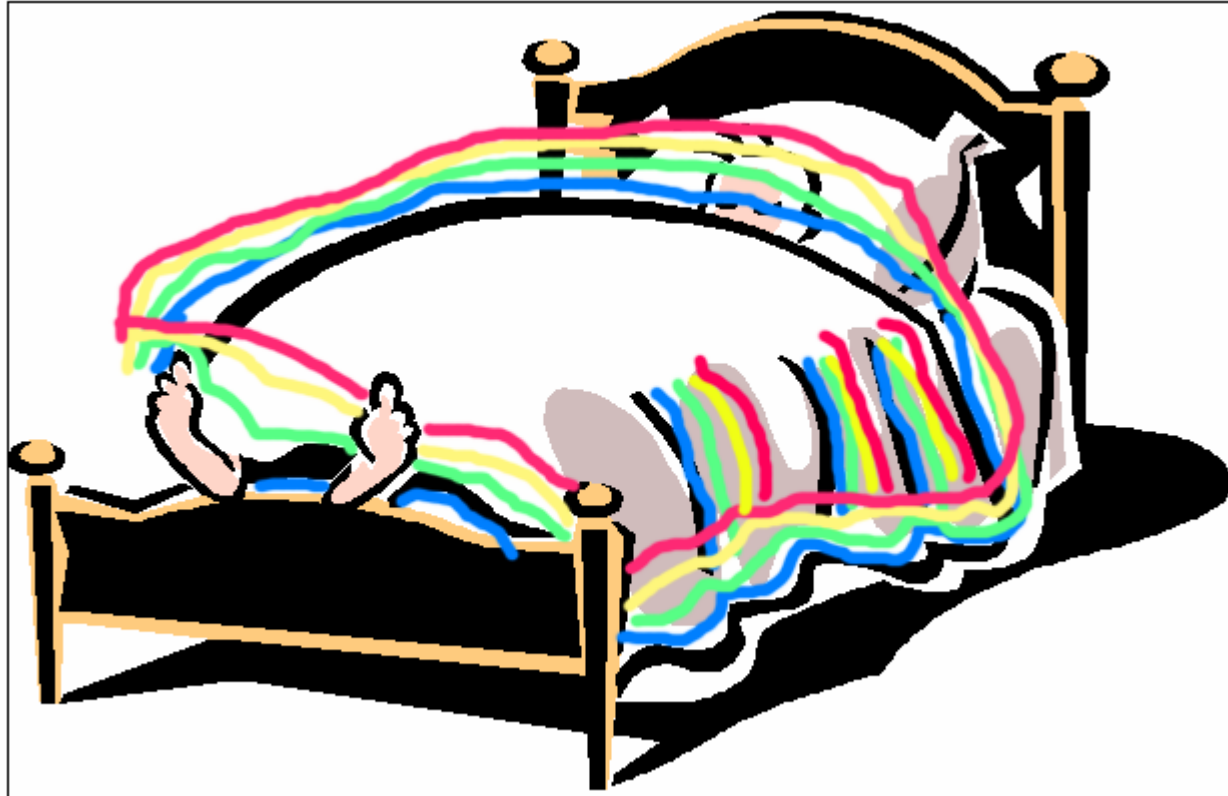
Leadership for Lean Thinking at Toyota

- ❑ Leaders in Toyota seldom say “Yes” or “NO” (*at first*)
- ❑ They usually simply ask “Why?”the “Five Why’s” in reverse:
 - “Why is that happening?”
 - “Why do you think that?”
 - “Why do you propose that?”
- ❑ The person with the Responsibility has the “burden of proof” to **demonstrate why** a proposed action is **necessary**.

If “managing” is about thinking...

...then “leading” is about
getting other people to think.

Lean is NOT a blanket solution



The Impact of Lean: Reasonable Expectations

- **Do Not Expect: Immediate, direct bottom line results**
 - **Waste reduction leads to process improvement**
 - **which leads to performance improvement**
 - **which can then lead to cost reduction**

167 improvements = 18 hours saved = \$450k

LEAN is not a management strategy

It's a way of achieving a management strategy.