



CXO 2018

Lean Thinking for Singapore

John Shook
Lean Global Network

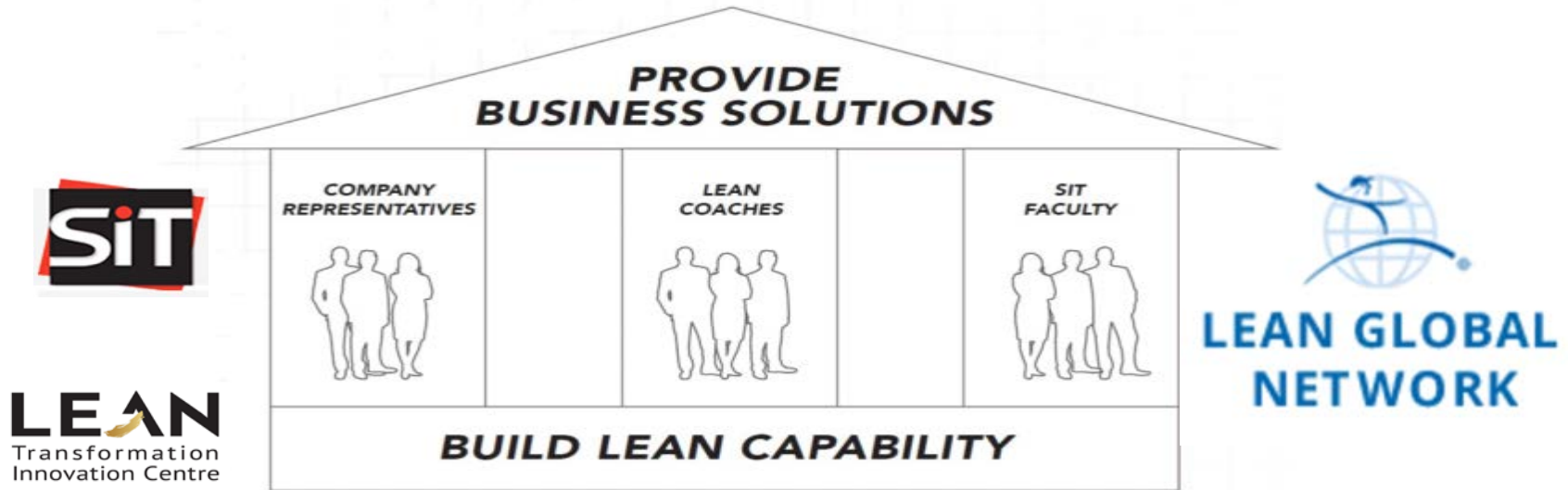
LGN Institutes & Partners (April 2018)



Making things better by advancing lean thinking and practice throughout the world.



LGN and SIT LTIC Partnership

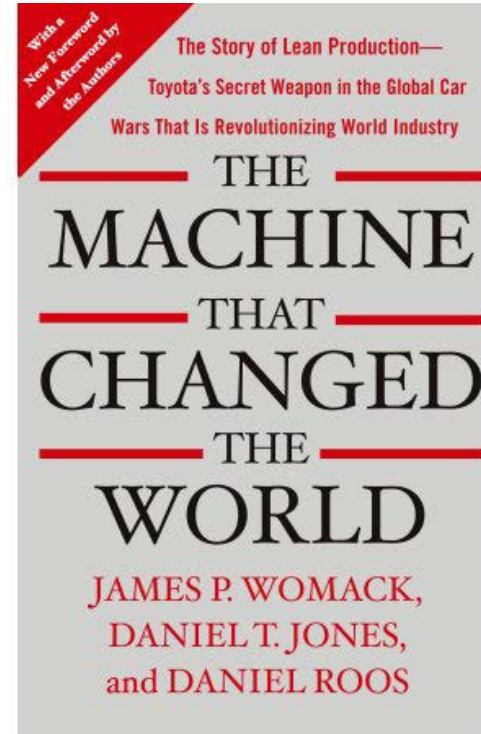


Lean Production Was Named 30 Years Ago

MIT Sloan
Management Review

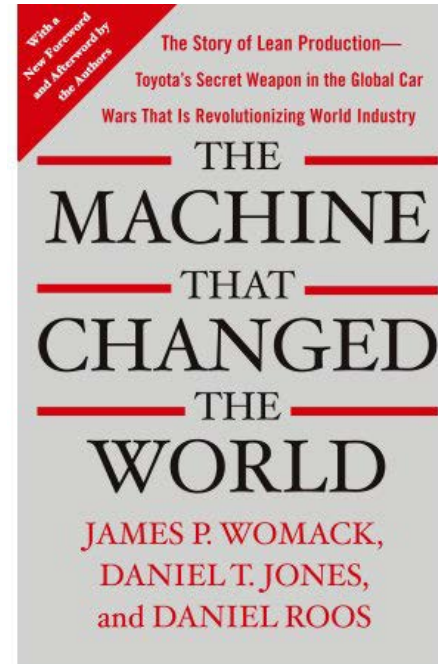
*The Triumph of
Lean Production*

Krafcik
1988

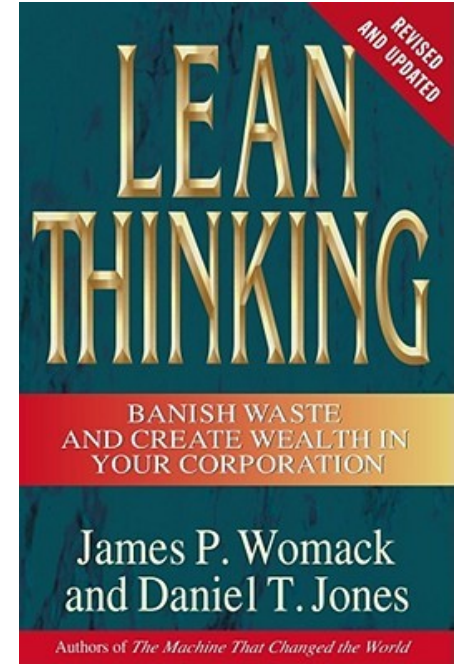
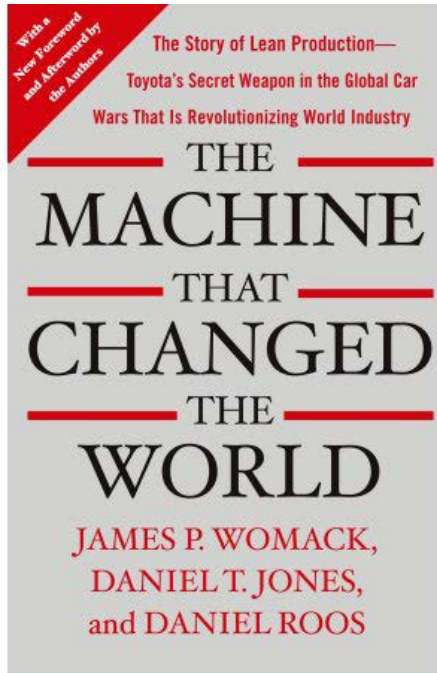


Interlocked Management Innovations

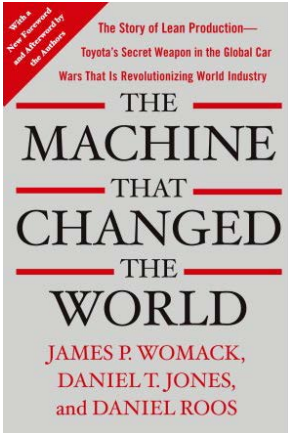
- Product and process development
- Supplier management
- Customer management
- Fulfillment, order through production to delivery
- General management



Sparking a Movement

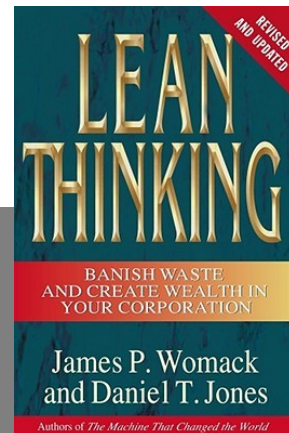


Lean Thinking & Practice



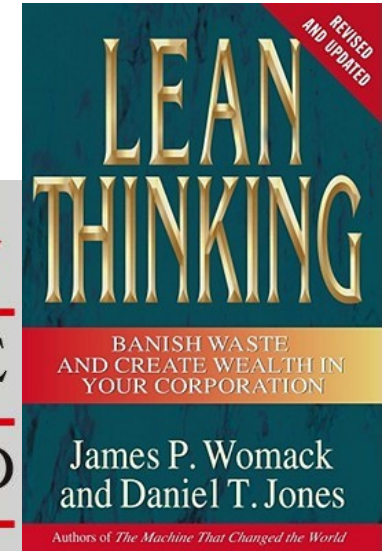
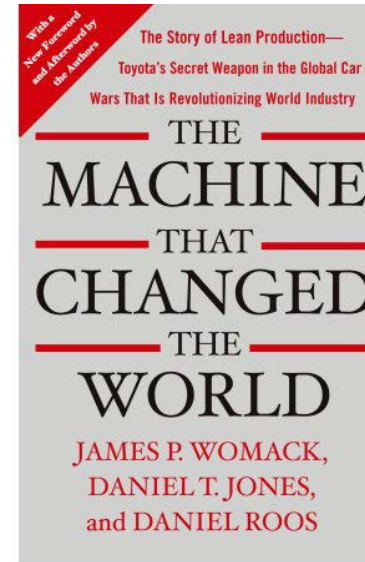
**Make work flow from end to end
and each value creating step to the next**

**by eliminating waste and shortening the lead time
through the never-ending efforts and creativity
of people solving problems and continually improving
their work at every level**

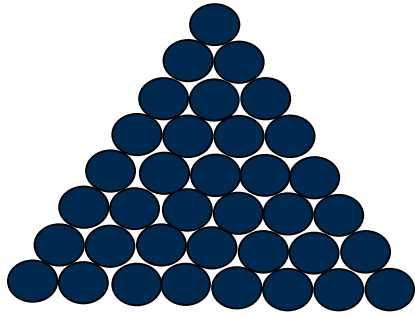


Since “Machine” and Lean Thinking

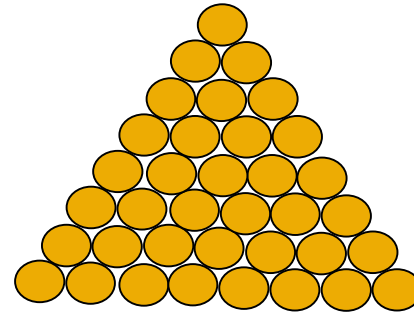
- Global Auto Industry
- Discrete Manufacturing
- Process Industries
- Healthcare
- Service Sectors
- Construction
- Knowledge Work



Transforming an Organization – How?



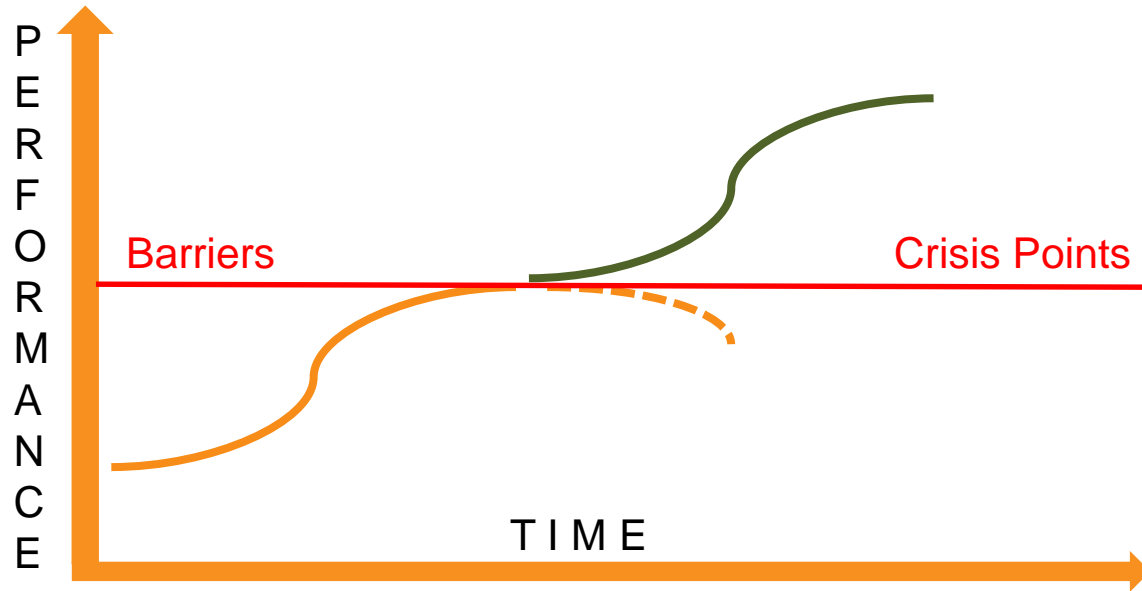
**FROM TODAY'S
AS-IS**



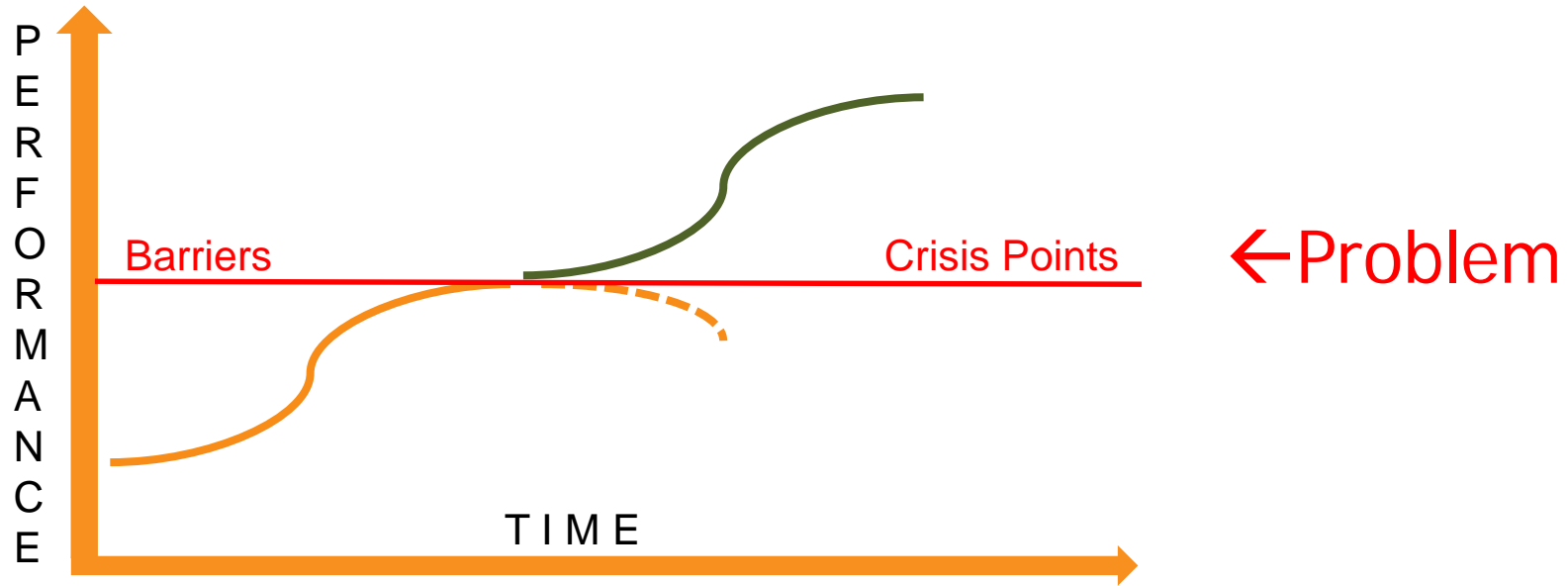
**TO TOMORROW'S
SHOULD-BE**

**From Van Harrison, Pd.D
University of Michigan
Michigan Medicine**

As simple as it may sound, it's not easy to transform

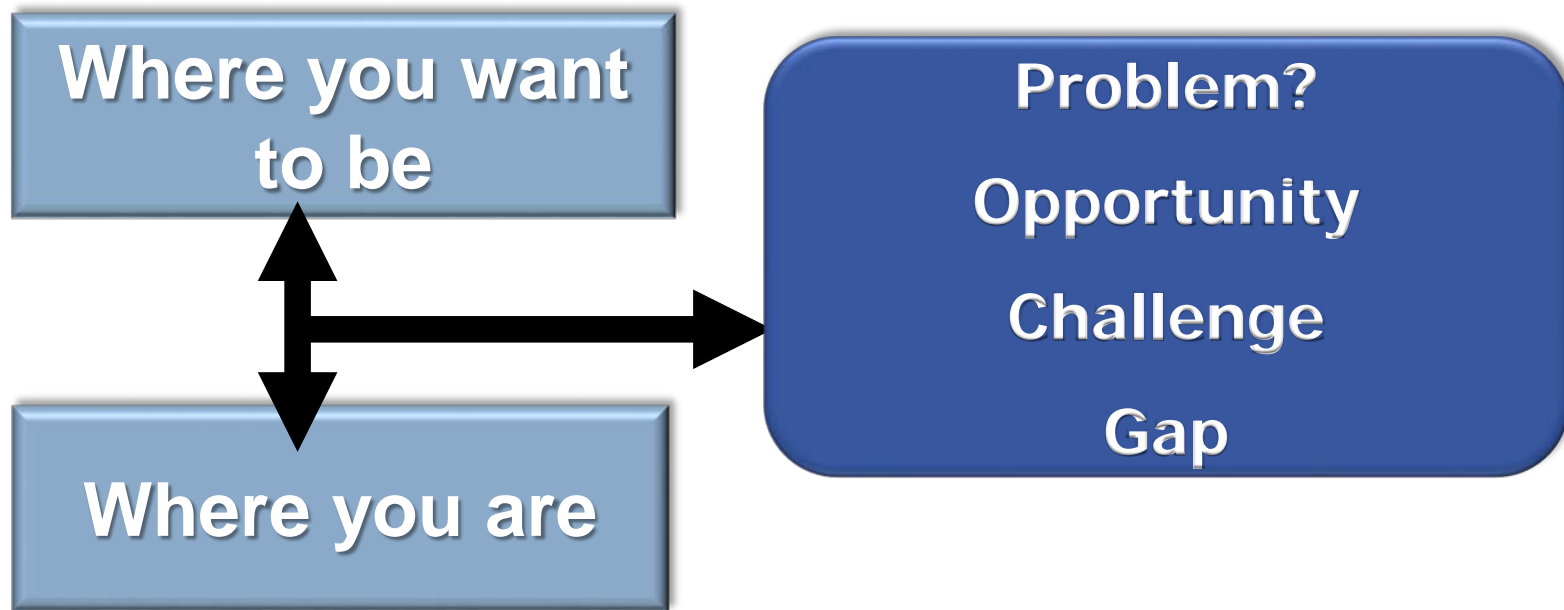


As simple as it may sound, it's not easy to transform

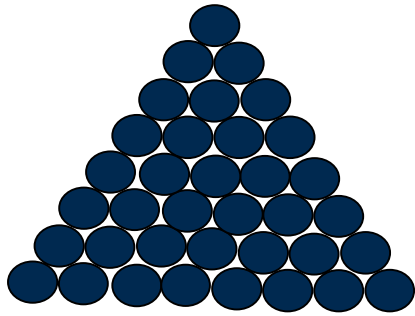




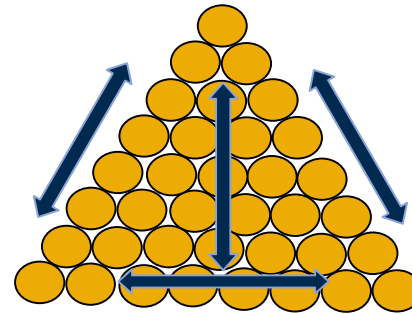
What is Your Problem?



Transforming Your Organization – How?



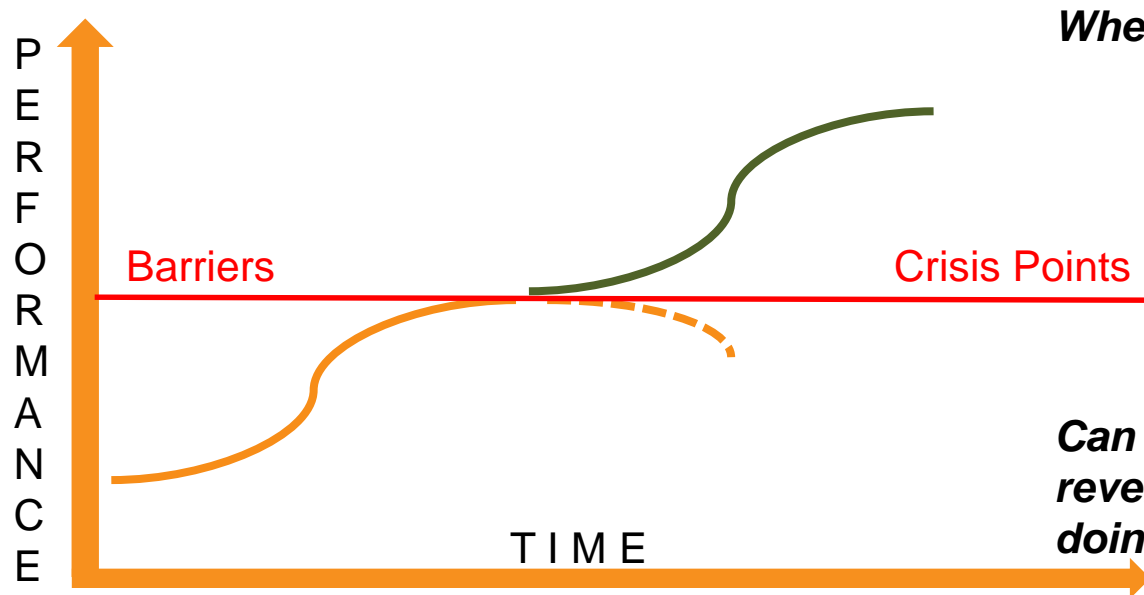
**FROM TODAY'S
AS-IS CONDITION...**



**TO TOMORROW'S
SHOULD-BE**

**From Van Harrison, Pd.D
University of Michigan
Michigan Medicine**

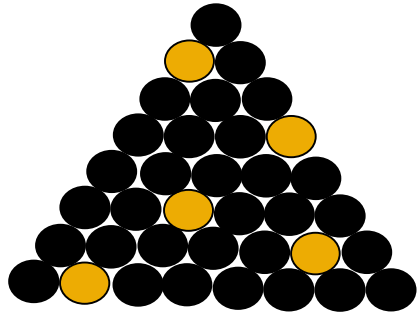
As difficult as it may sound, it's not impossible to transform



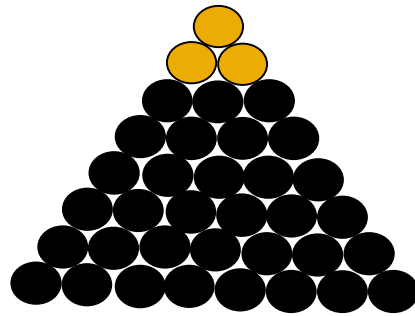
*Where is your organization...
upward trend?
stuck on the line?
going backward?*

*Can you break through or
reverse a backward slide by
doing what you are doing?*

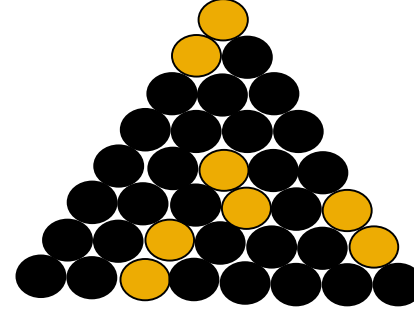
Transforming Strategies...



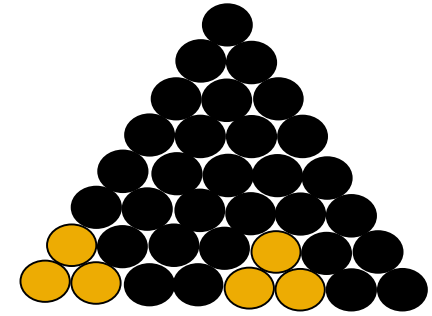
Individuals



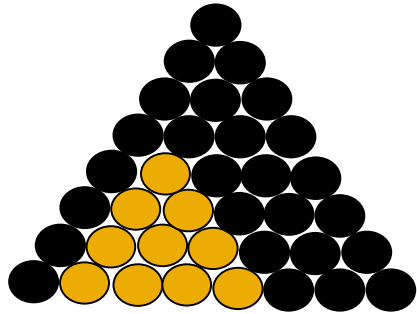
Top Leaders



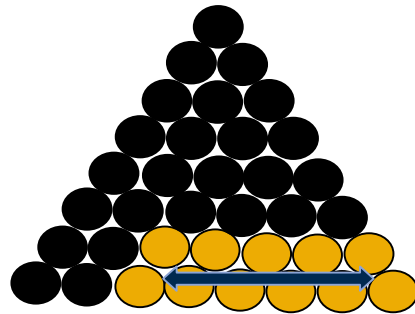
Supervisors-Mentors



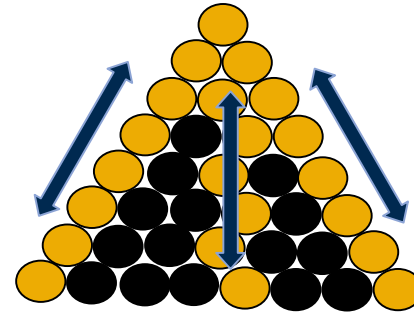
Work Groups



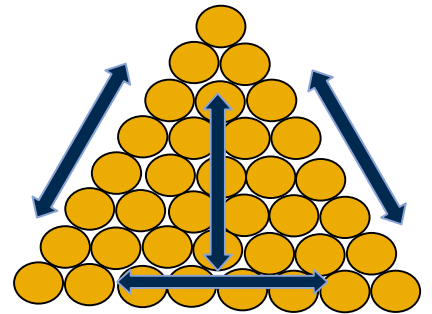
Departments/
Units



Across Units

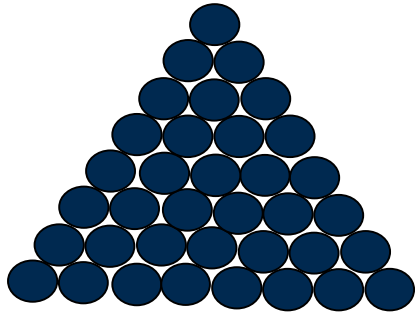


Strategy Deployment

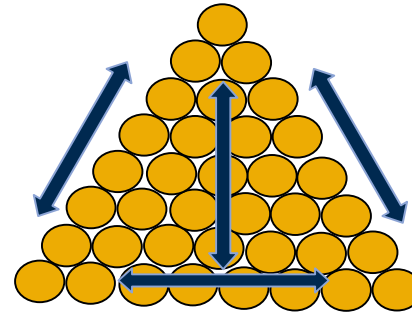


Transformed
Organization

But first...What is Your “Should-be”?



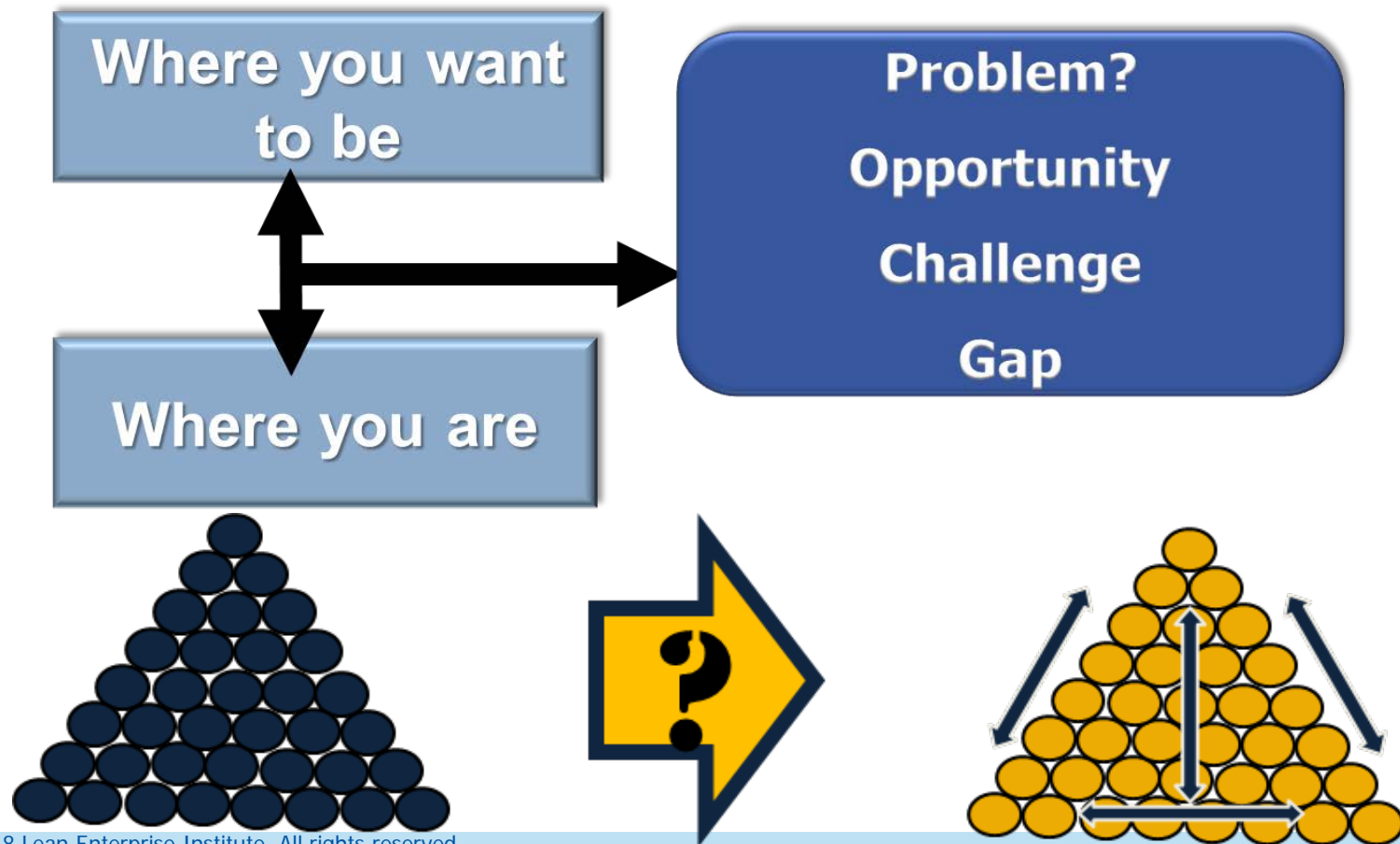
**FROM TODAY'S
AS-IS CONDITION...**



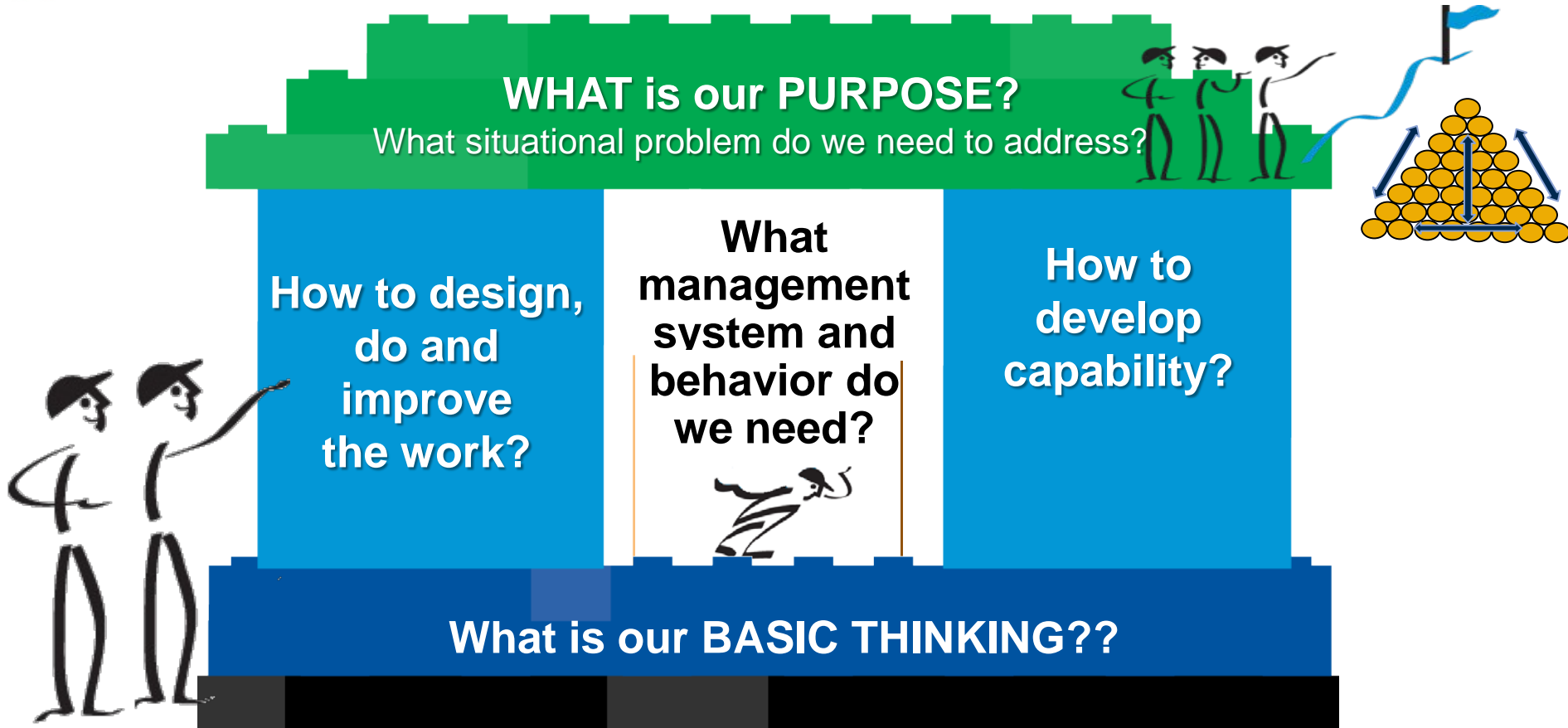
**TO TOMORROW'S
SHOULD-BE**

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University of Michigan
Michigan Medicine**

What is Your Transformation Problem?



A Way to Decide: The Lean Transformation Framework



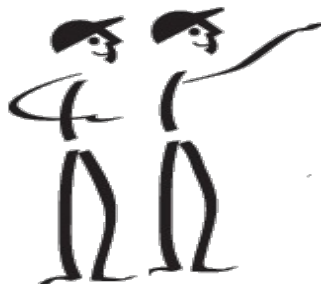
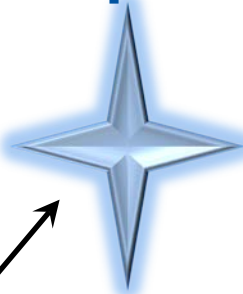
True North



What it is:

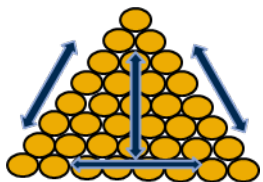
- Words or pictures that express the direction
- With clarity and ideally emotional impact
- A target condition with indicators

Purpose

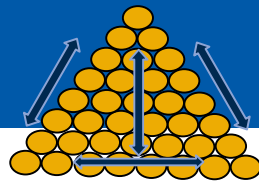


**Current
Performance**

- Derives from deep Grasping of the Situation: Purpose, Mission, Vision, Value
- A contract based on deep agreement
- Pulls people to action



PDCA at Each Organizational Level



Macro System Level



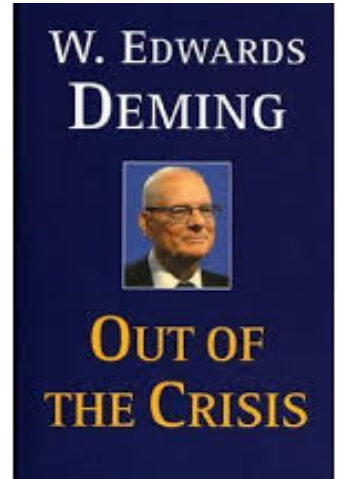
**Value Stream Level or
Factory, Hospital, Office, Department Level**



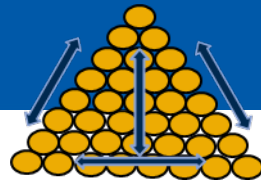
Level of Each Individual Job

Basic Thinking and Fundamental Process

From pDpD (try, fail, try, fail)
to PDCA cycle

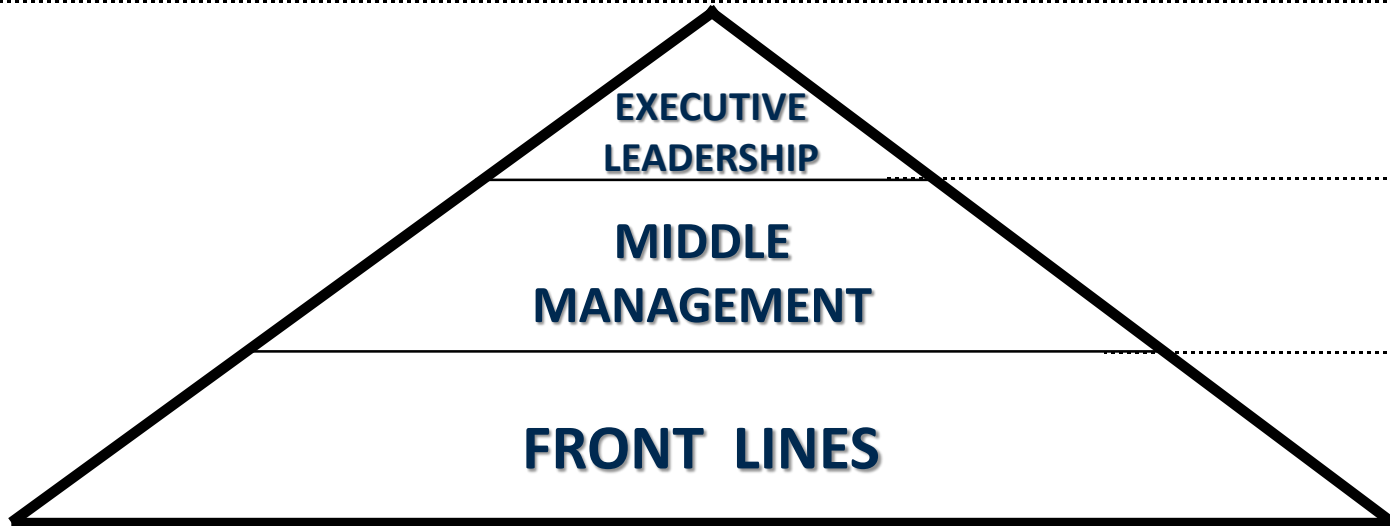


PDCA at Each Level

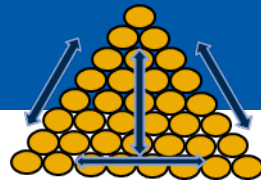


ROLE

IMPACT



Focus and Process for Each Level



ROLE

IMPACT

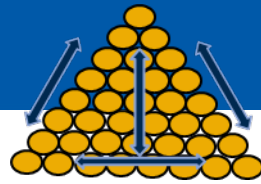
**EXECUTIVE
LEADERSHIP**

**MIDDLE
MANAGEMENT**

FRONT LINES

1. Relieve Overburden with Effective and Efficient Capacity

Focus and Process for Each Level



ROLE

IMPACT

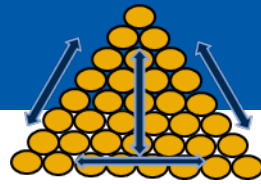
**EXECUTIVE
LEADERSHIP**

**MIDDLE
MANAGEMENT**

FRONT LINES

1. Relieve Overburden with Effective and Efficient Capability
2. Relieve Variation with Effective and Efficient Methods

Focus and Process for Each Level



ROLE

IMPACT

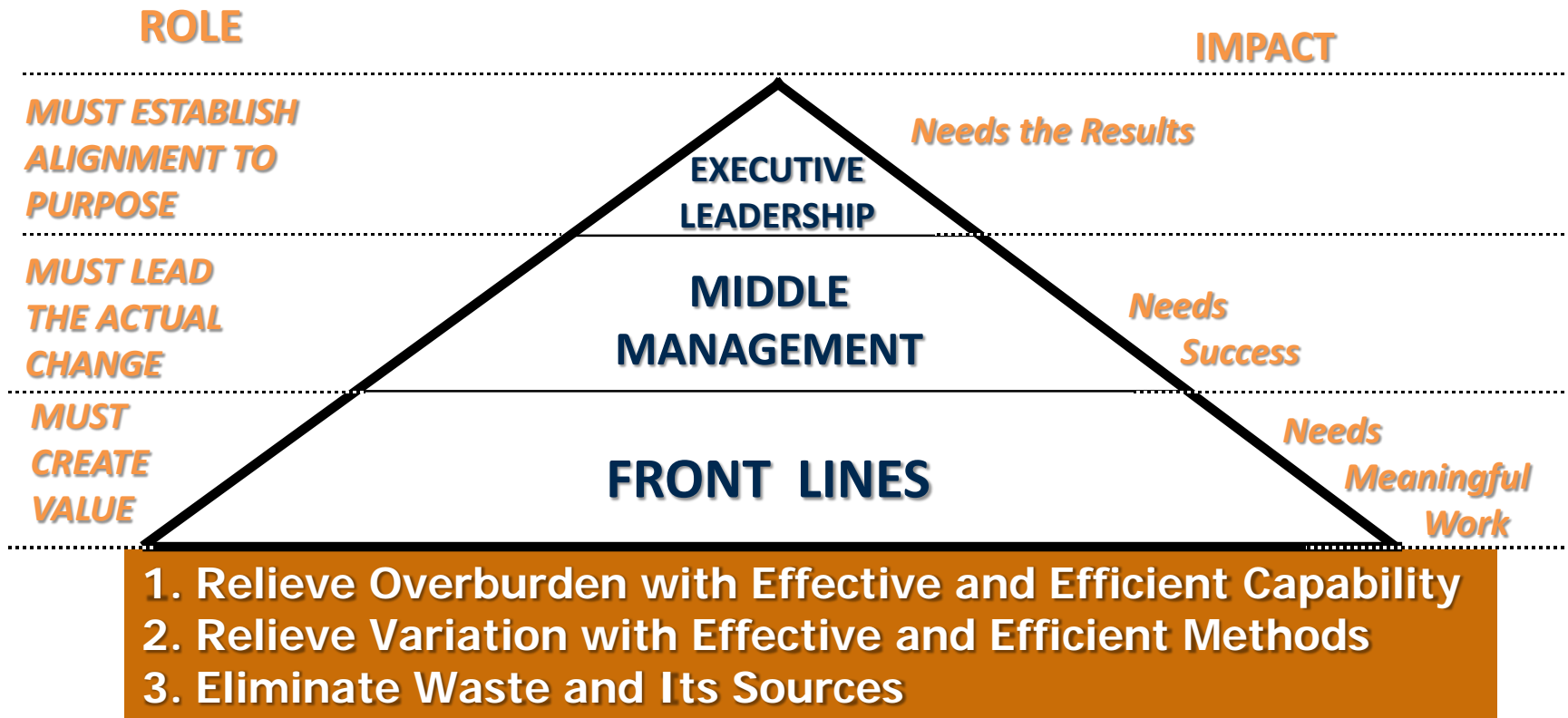
**EXECUTIVE
LEADERSHIP**

**MIDDLE
MANAGEMENT**

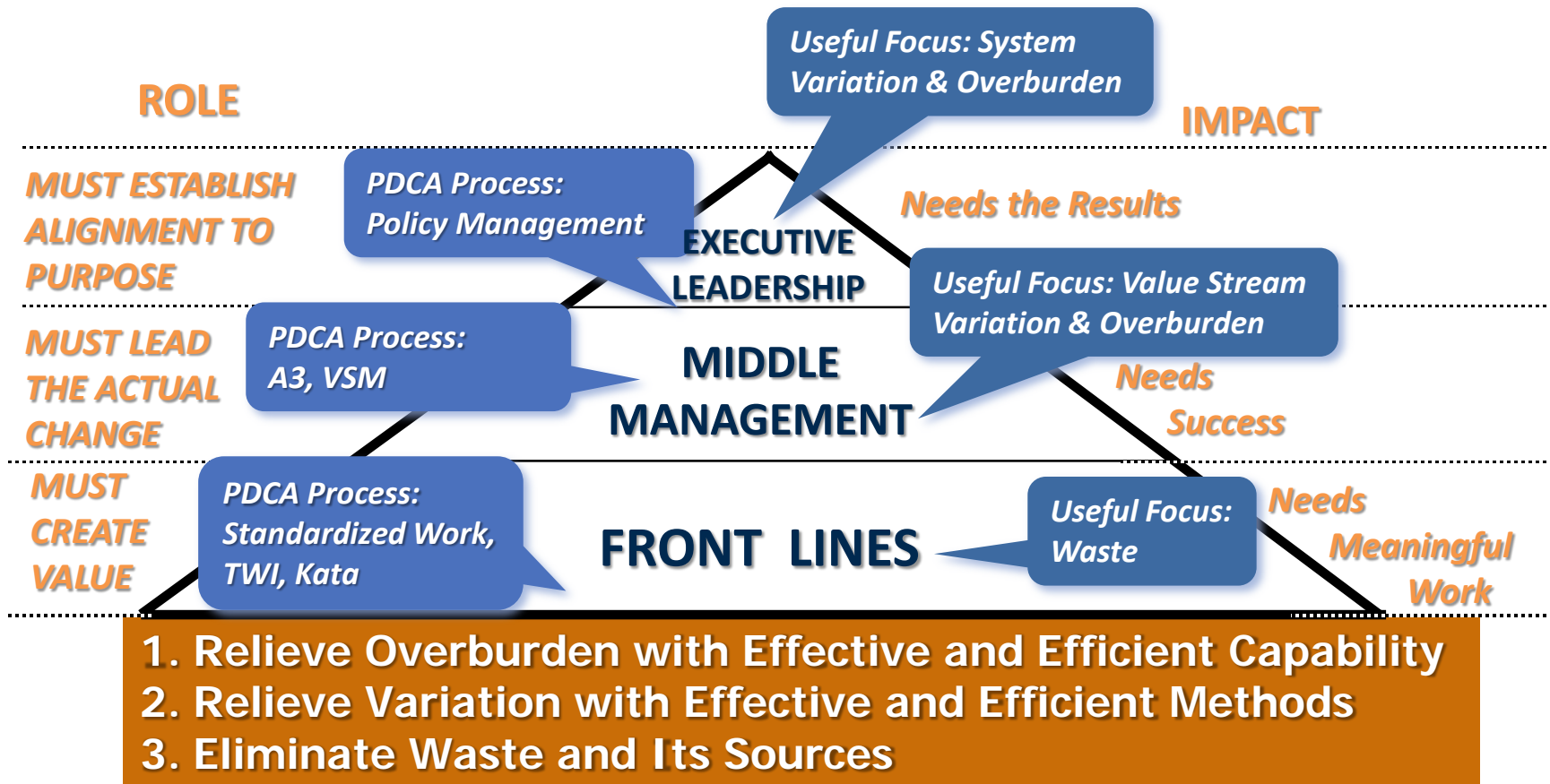
FRONT LINES

1. Relieve Overburden with Effective and Efficient Capability
2. Relieve Variation with Effective and Efficient Methods
3. Eliminate Waste and Its Sources

Focus and Process for Each Level

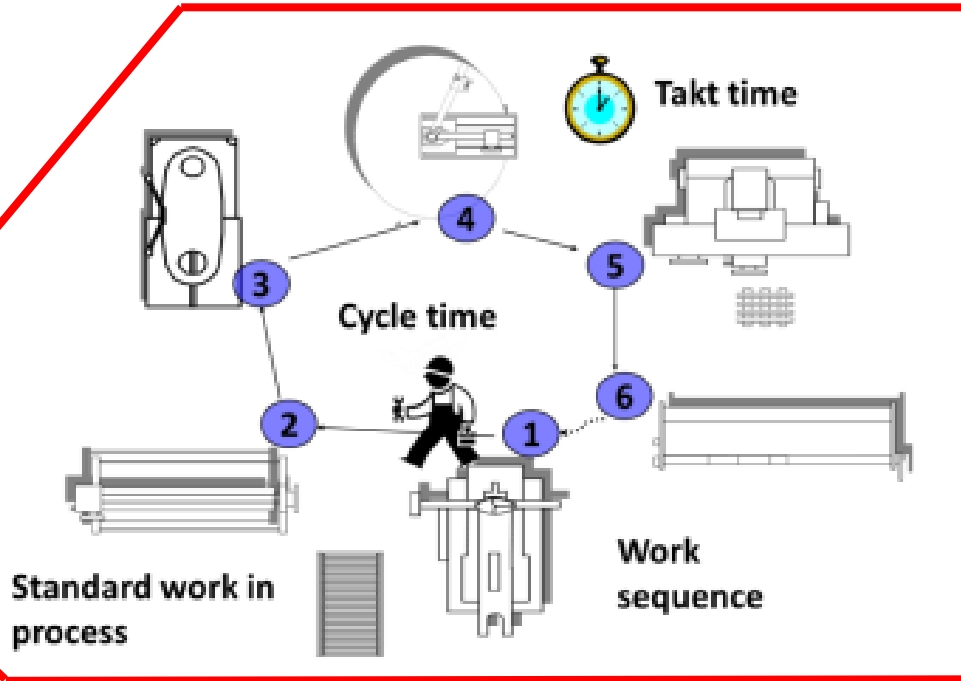
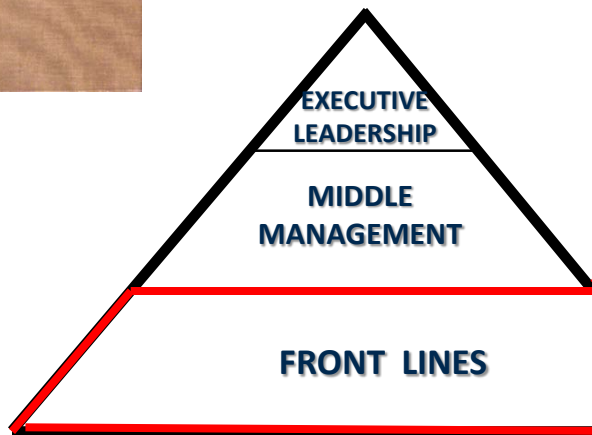
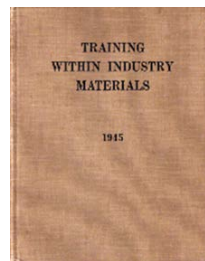


Focus and Process for Each Level



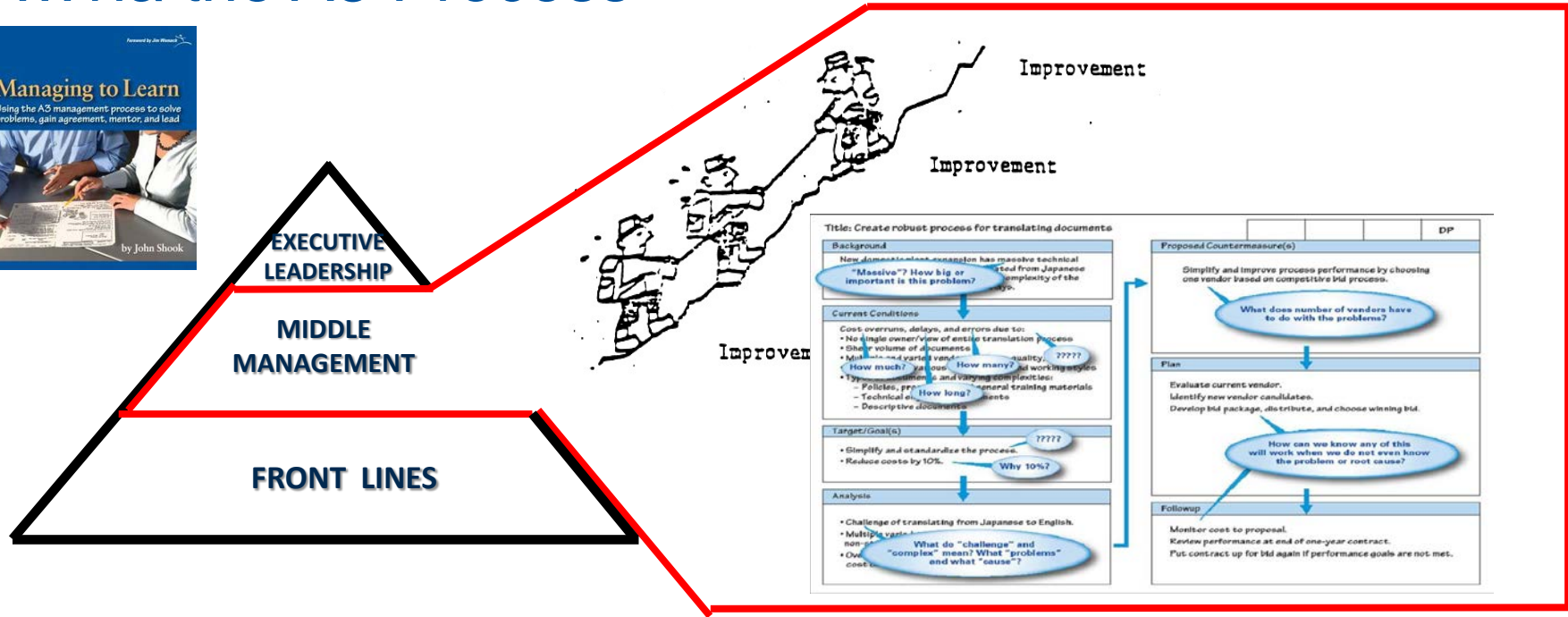
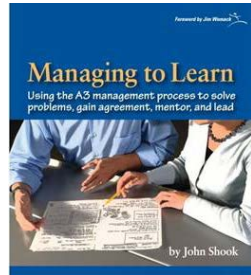
Value Creating Work

Design the *work experience*... Use lean PDCA tools:
Standardized Work, TWI, Kata...



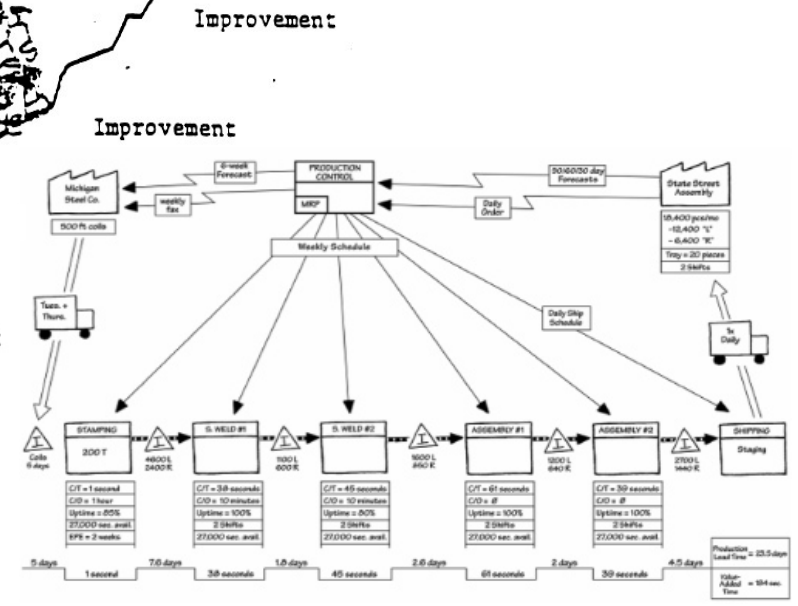
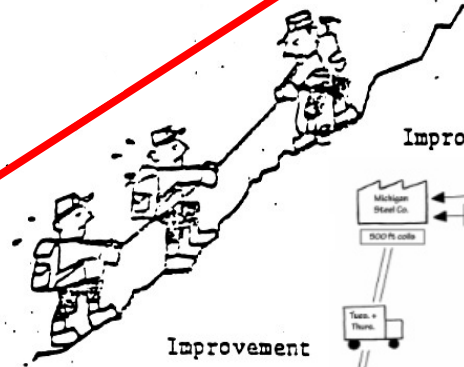
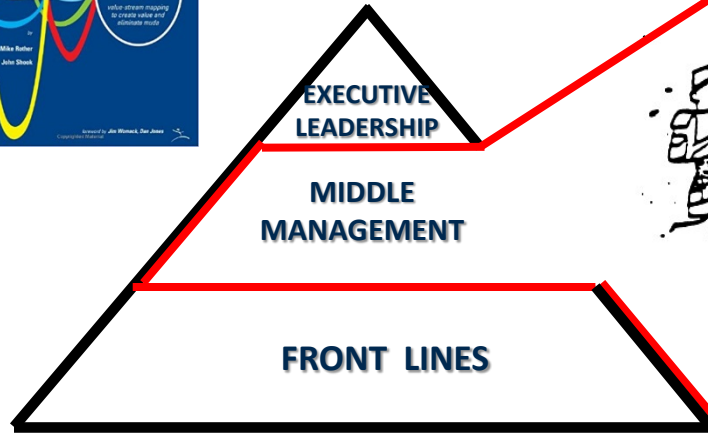
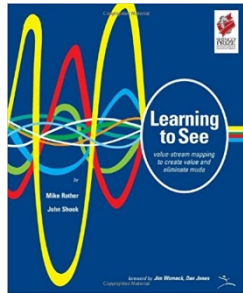
Middle Management

Develop capability to develop capability to improve
...via the A3 Process



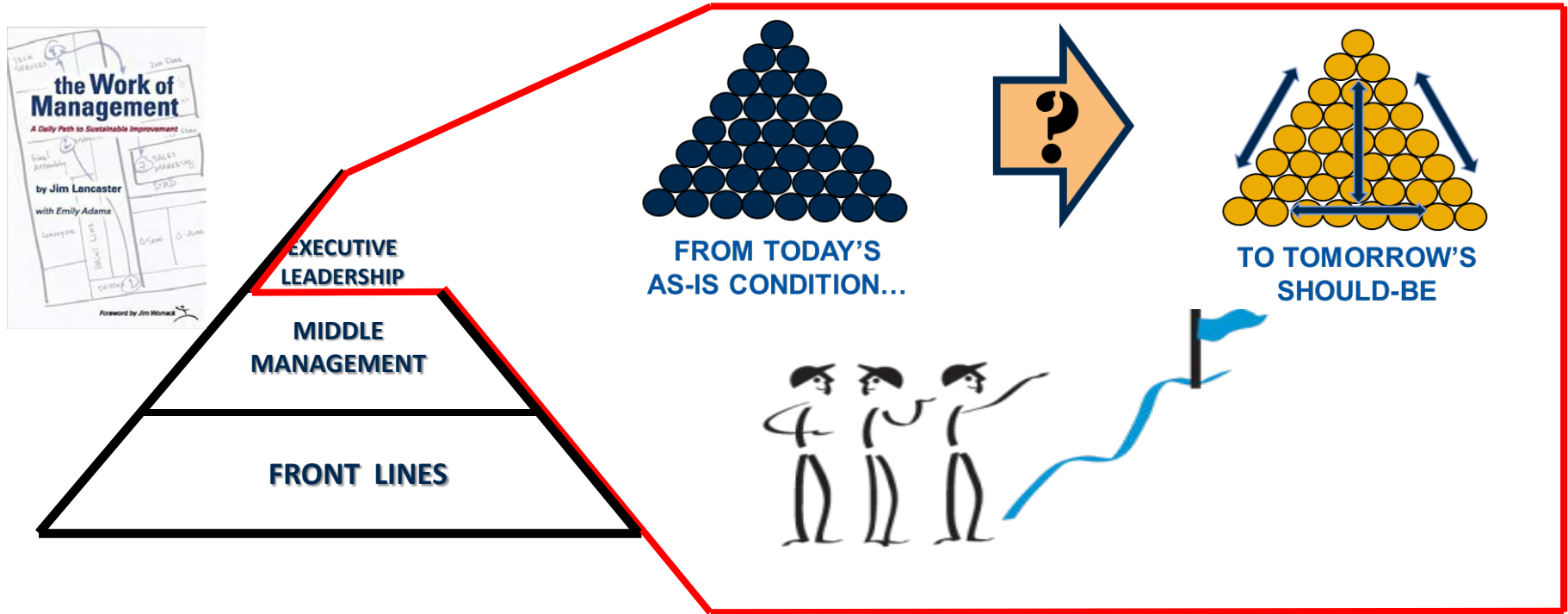
Middle Management

Develop capability to develop capability to improve
...via Value Stream Improvement



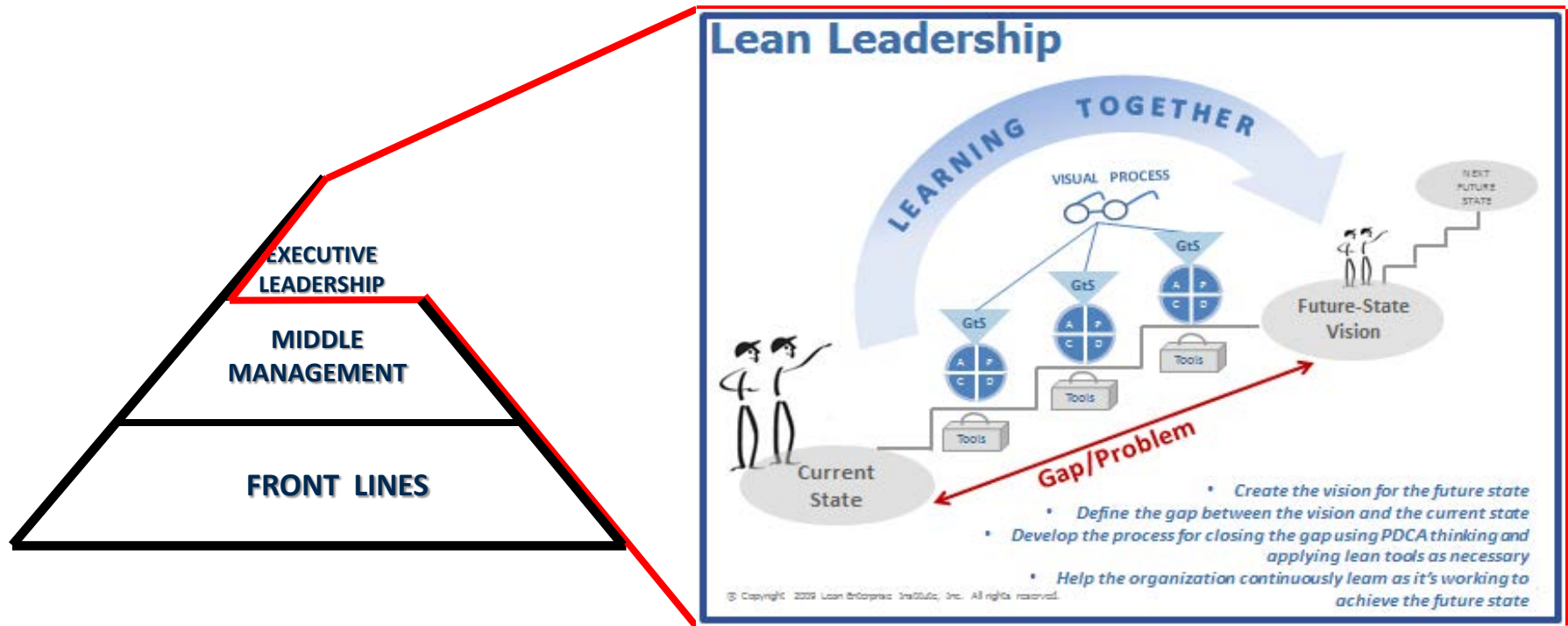
Senior Leadership

Take responsibility to develop total system capability



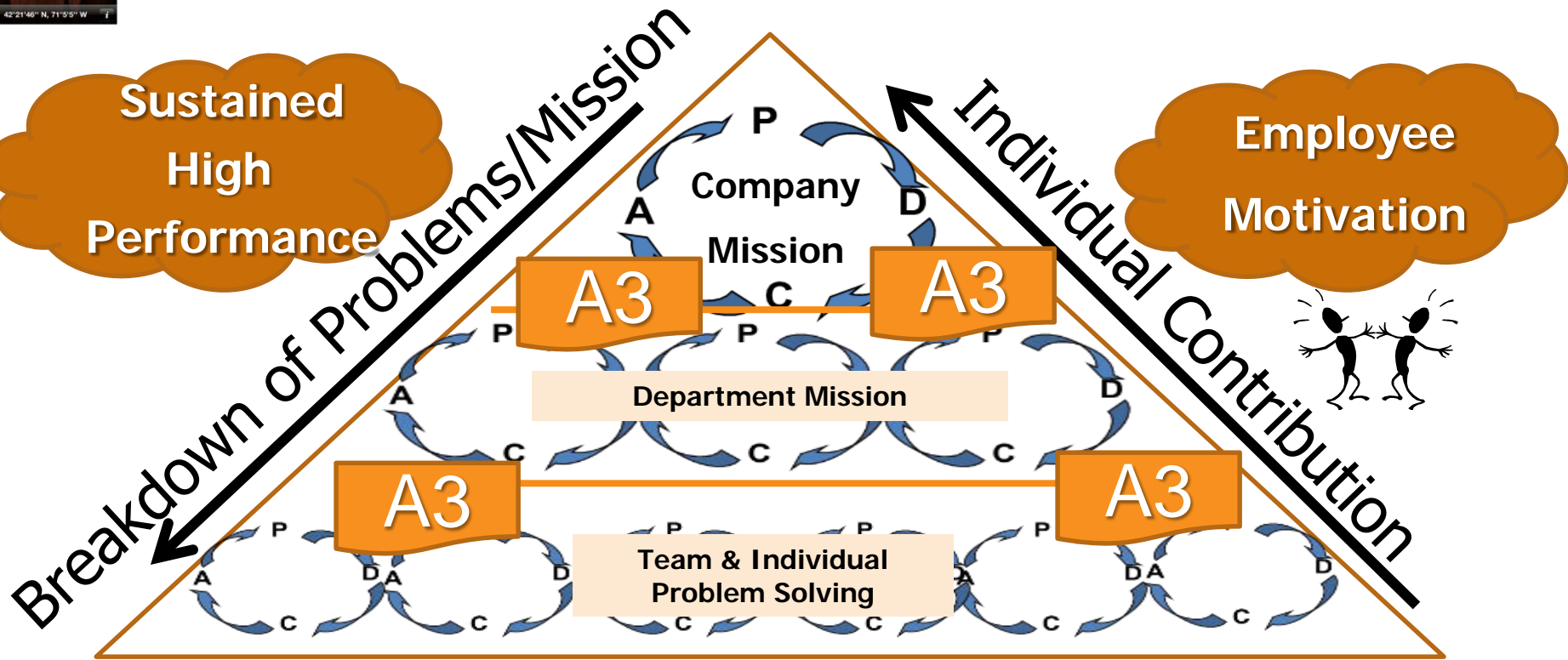
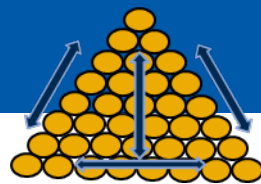
Senior Leadership

Take responsibility to develop total system capability



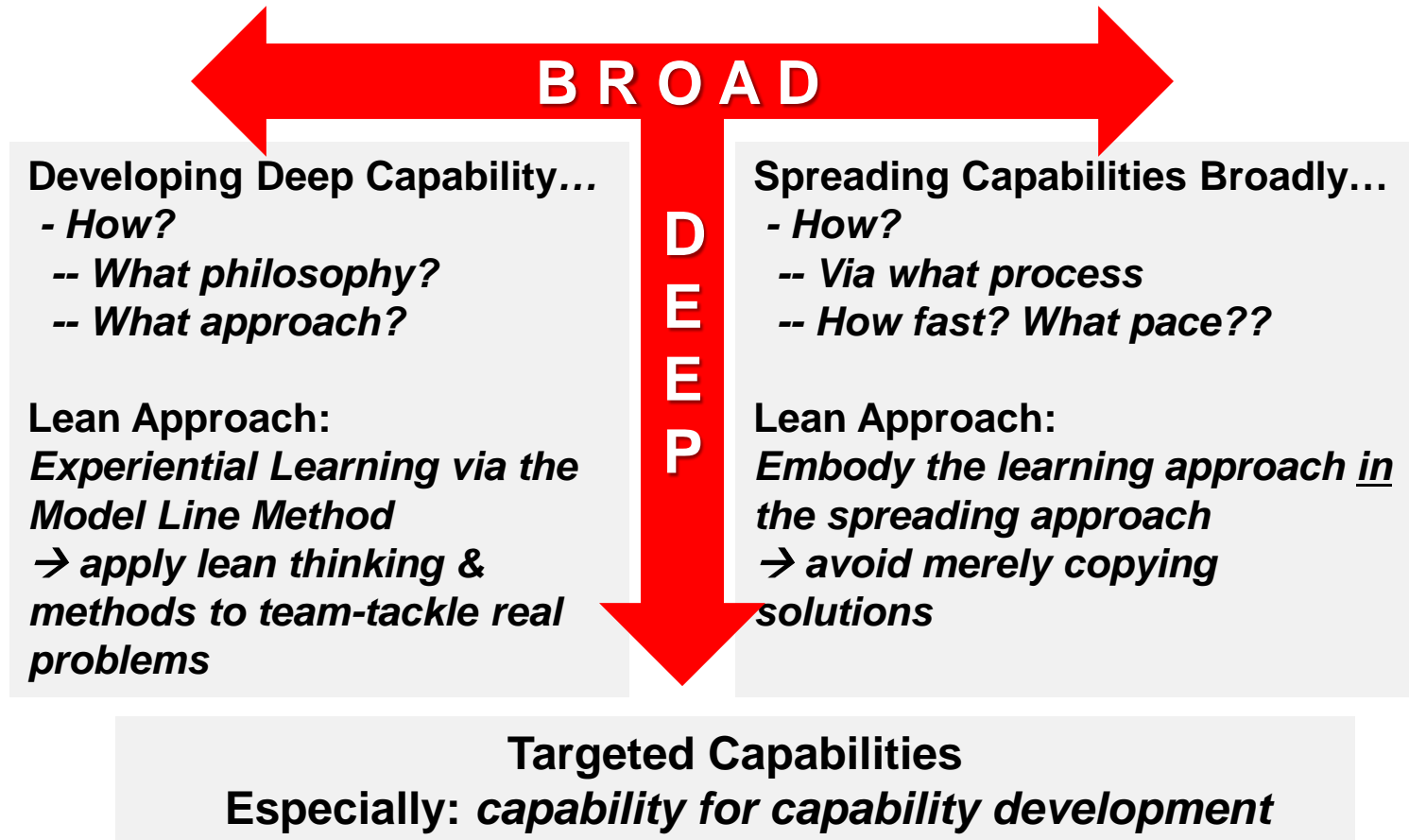
Break Down and Cascade Up Problems and Solutions

Problem Solving at Each Organizational Level





T-Form Capability Development



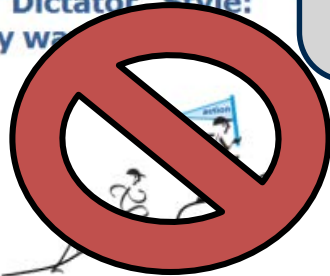
Lean Style:

"Lead as if you have no power"



"Operations are a
reflection of
management"

Old "Dictator" Style:
it my way



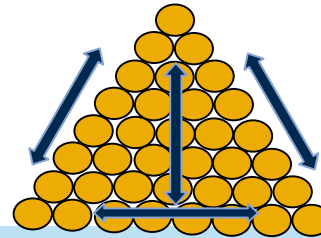
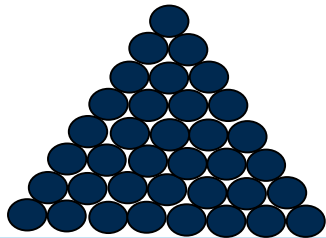
"Empowerment" Style:
your way "



How To Know If You're Succeeding

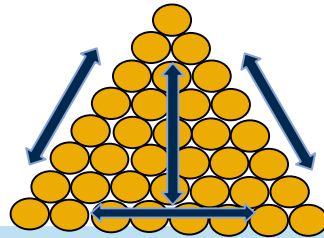
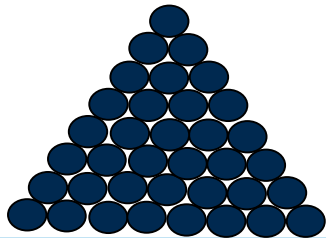
Measuring Performance:

- Performance to Purpose
- Performance to Plan



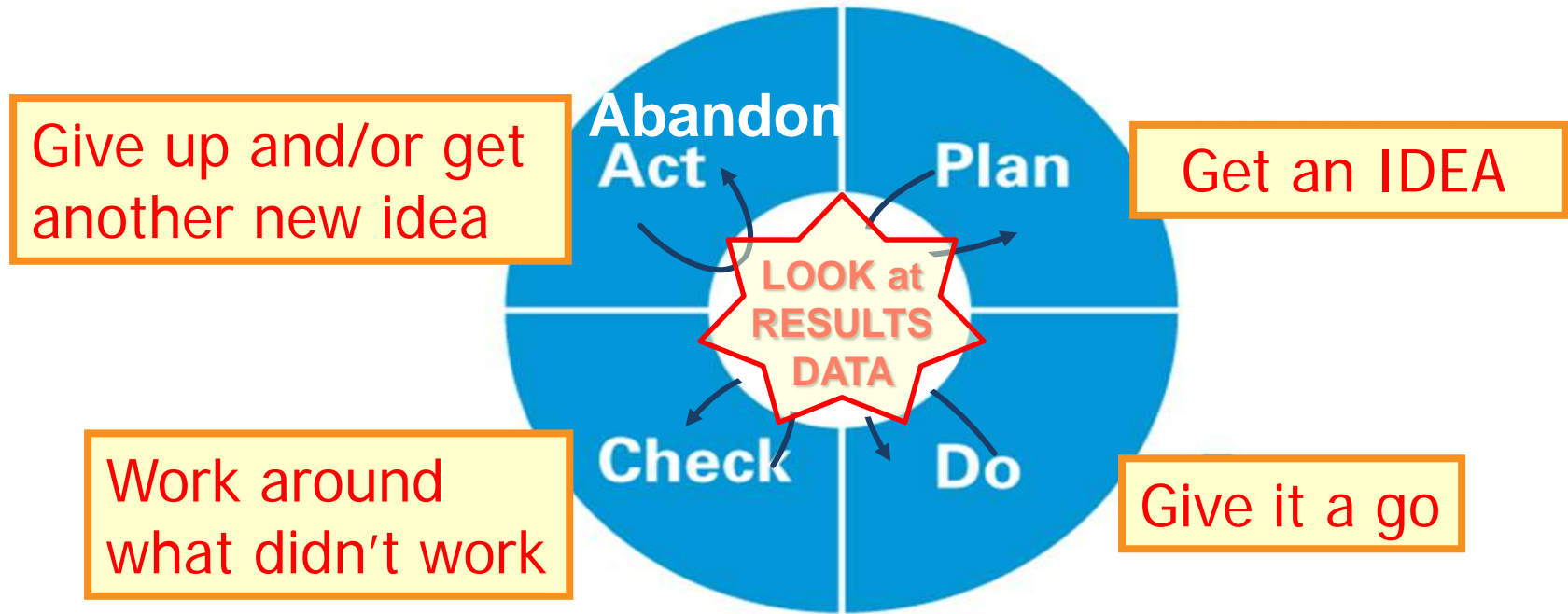
Measuring Success and Progress

- Performance to Purpose
→ Know your Purpose
- Performance to Plan
→ Have a Plan



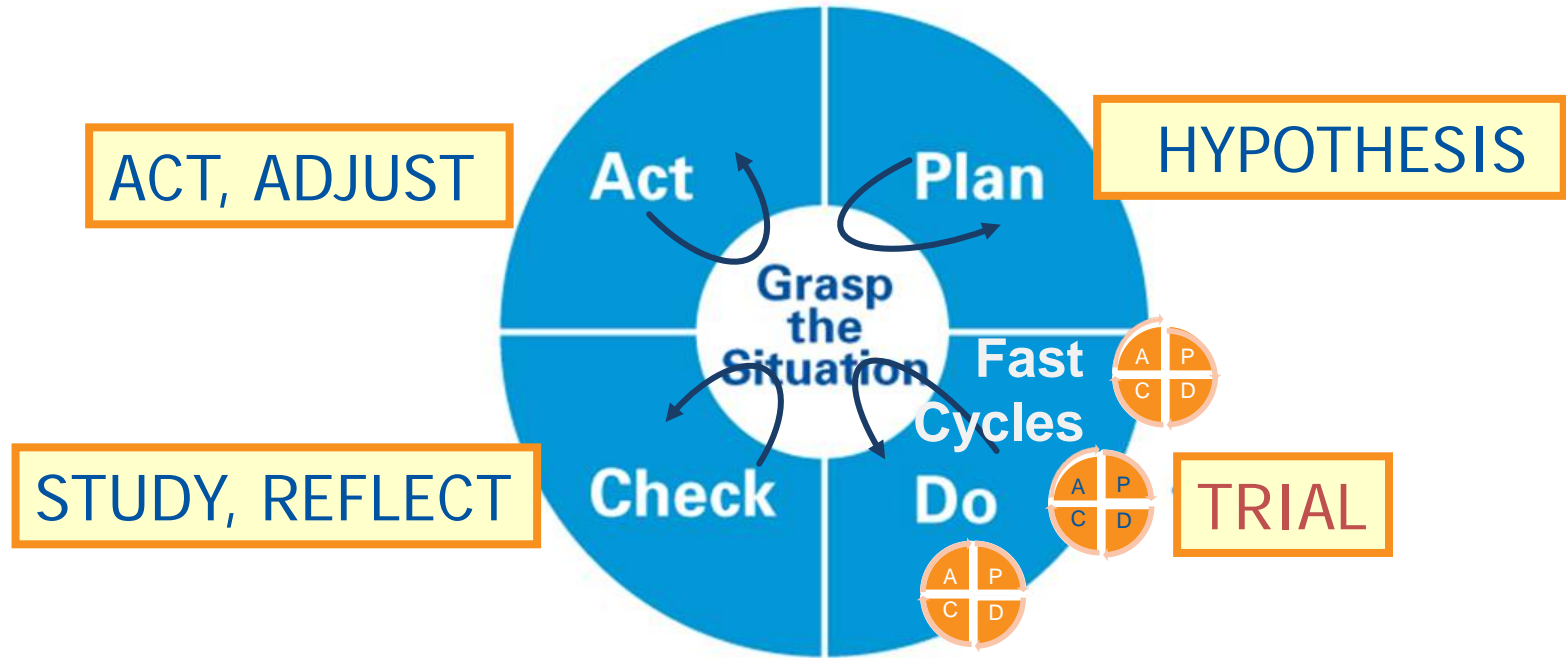
Plan-Do-Check-Abandon Cycle

From pDpD (try, fail, try, fail)
to PDCA cycle



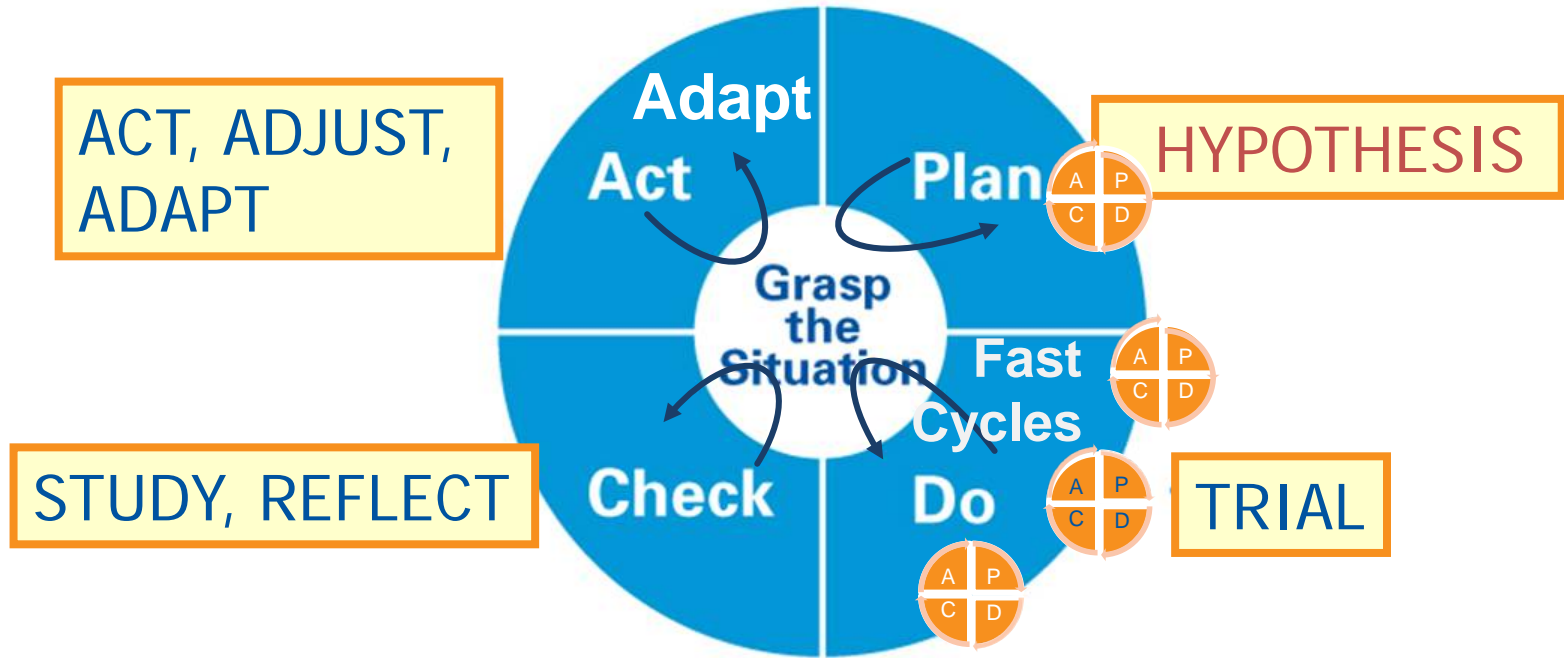
Plan and Do and Check and Act

Plan-Do-Check-Act Cycle



Plan and Do and Check and Adapt

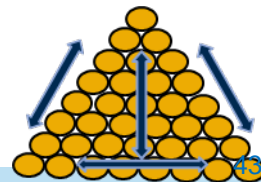
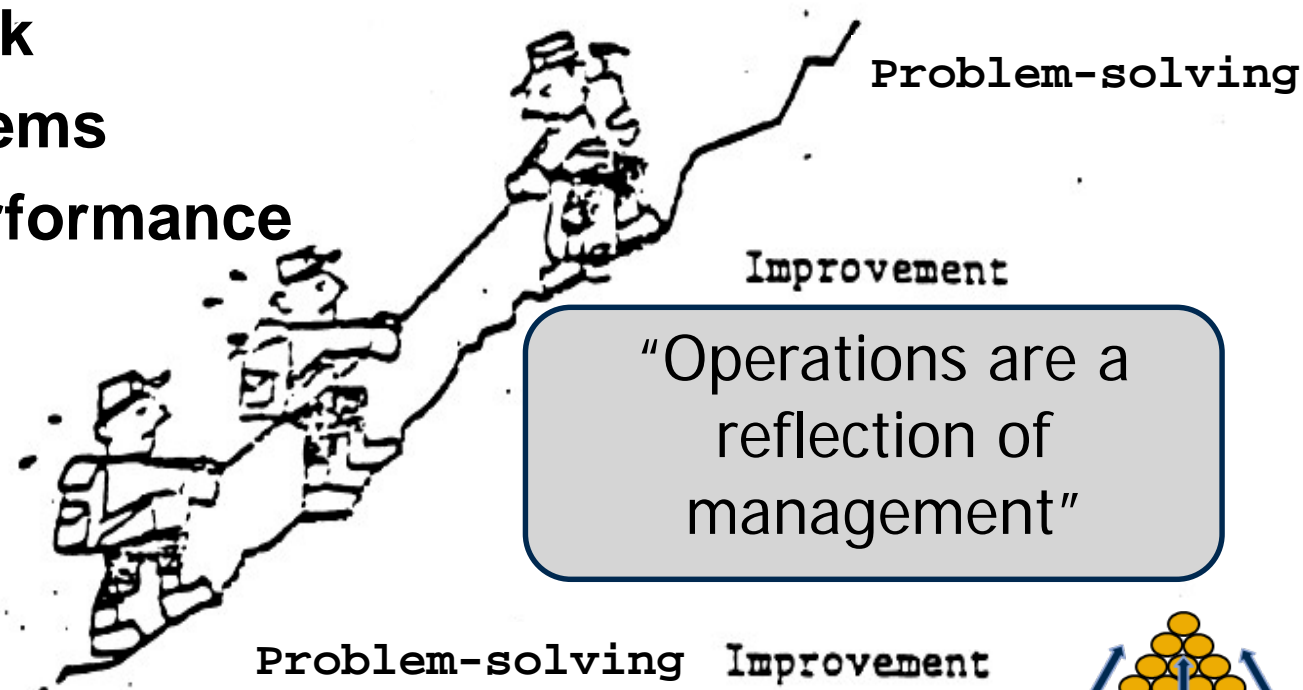
Plan-Do-Check-Adapt Cycle



People Development – Leaders as Coaches

Develop Capability in

- doing the work
- solving problems
- improving performance



LGN and SIT LTIC Partnership to Help Singapore Companies Improve Performance, Develop Capability and Enable a Lean Culture

Purpose of Lean Transformation Innovation Center (LTIC):

- 1) Improve and sustain business performance at companies
- 2) Develop Lean capability of company employees and SIT faculty
- 3) Change mindsets and behaviors to enable a continuous improvement culture



Lean Skills Development Program to improve business performance, develop capability and change mindsets

A 6 month collaboration:

1) Education:

2) Company I



April - May

Problem
Scoping

* Optional lean topics are covered depending on the business challenges of the companies

NTUC Health – Five Lean Teams...

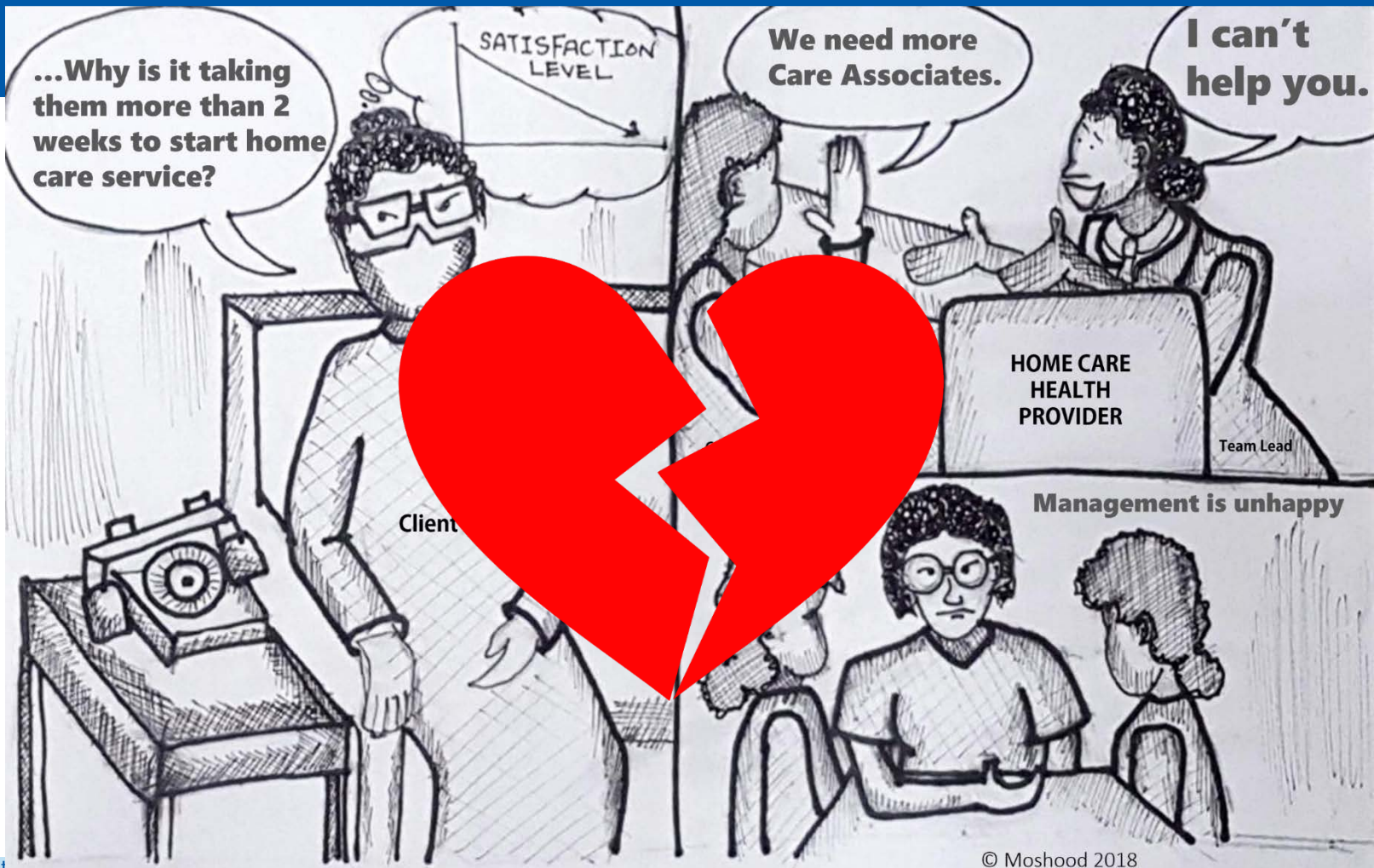




NTUC Health Care @ Home Lean Story

Story by
Care@Home Lean Team

Art Concept + Illustration by:
Moshood Olawale Fadeyi, PhD, CEng
Singapore Institute of Technology



10-14
① LEAD TIME - current 15 days
A (URGENT) requests - same day / the following day

② Incomplete / conflicted info causing quality issues in billing (post care)

Problems:

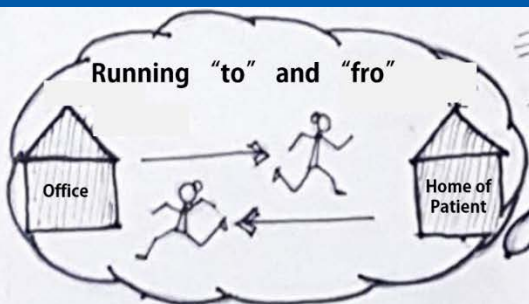
③ Referred clients are uncontactable

④ Manpower Availability

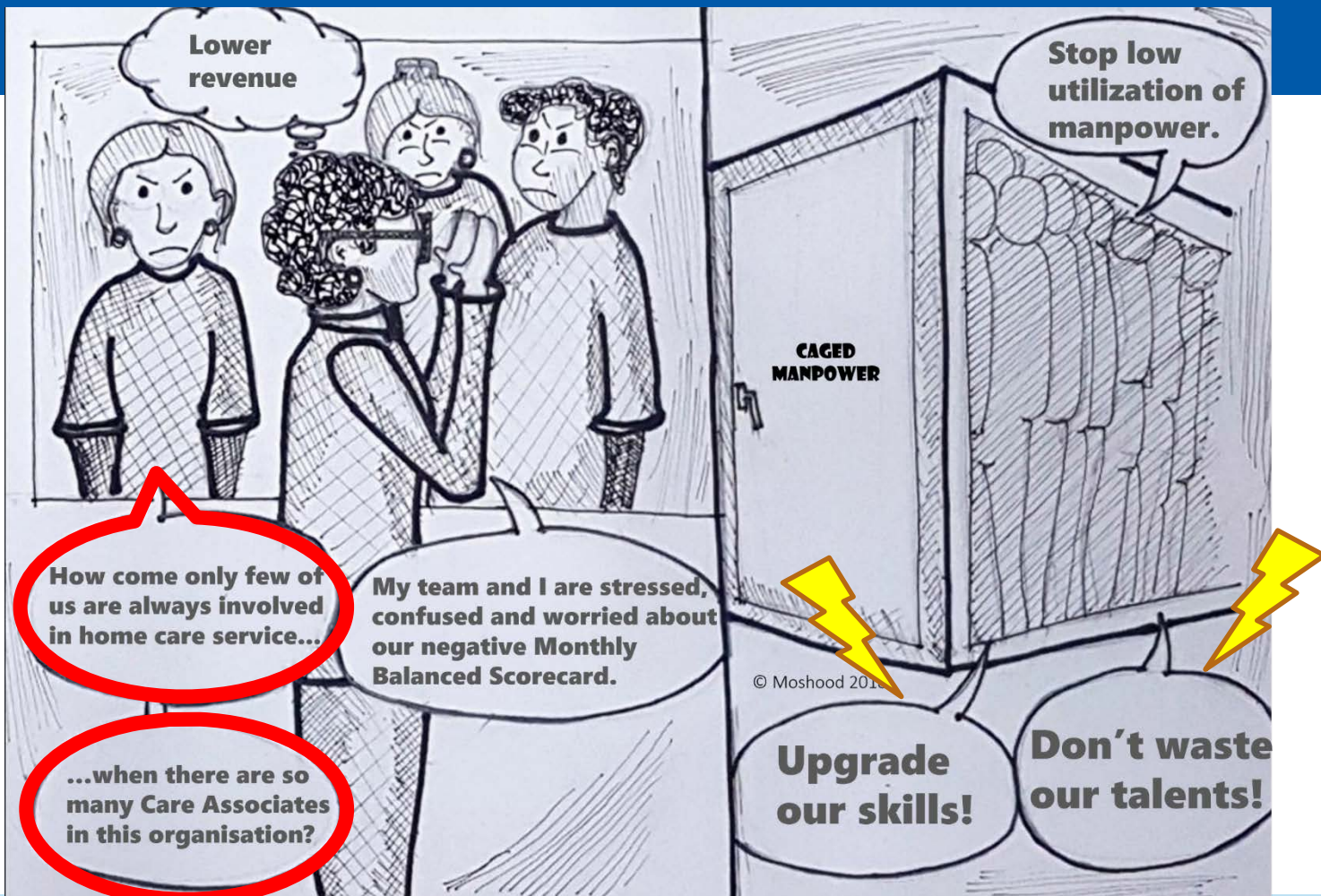
④ Manpower Availability
- Nurse assessment
- Care associate

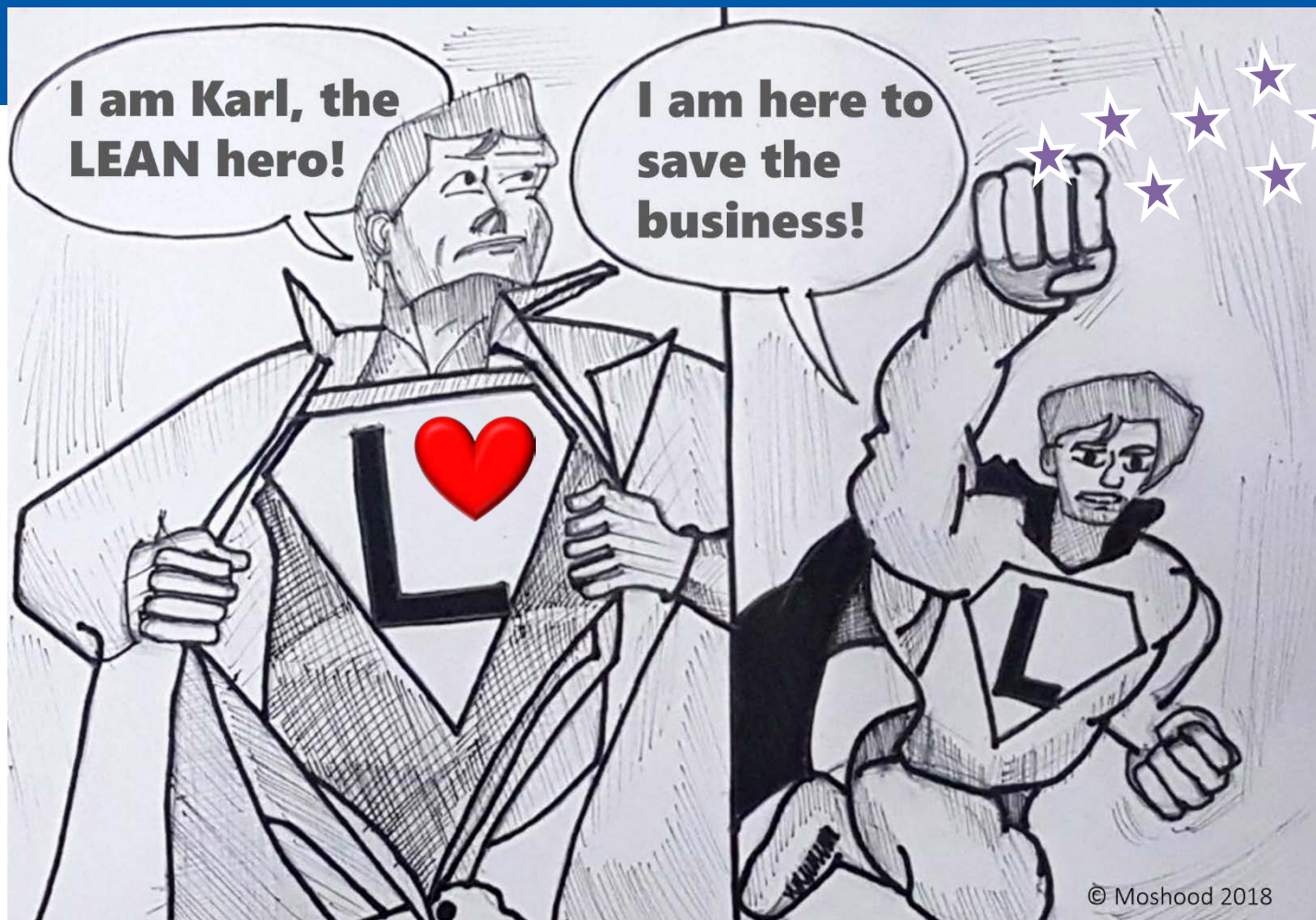
lack of adequate incomplete documentation provided by clients in order to process requests (medical doc, LC, registration form.)





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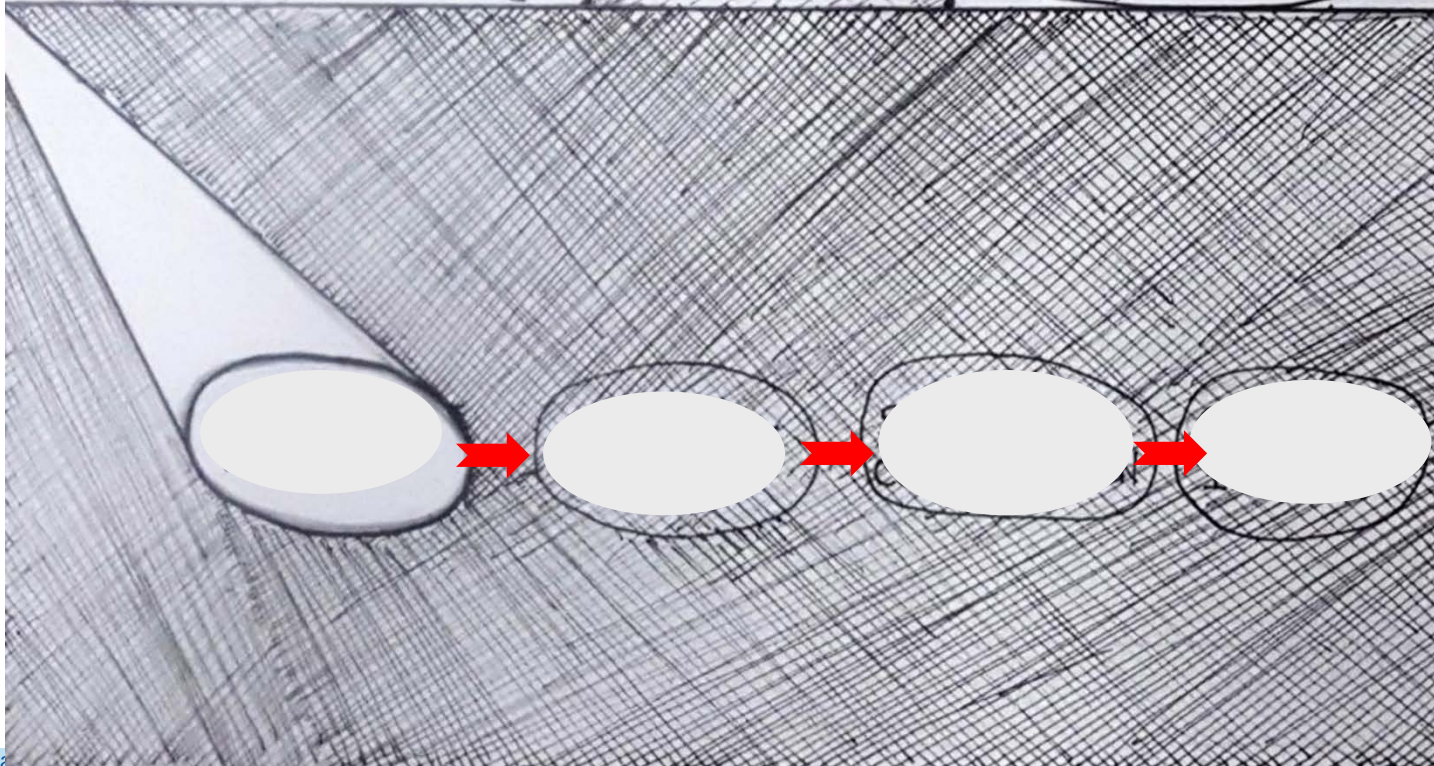
LEAN ENTERPRISE: IDENTIFY AND SOLVE PROBLEMS TOGETHER

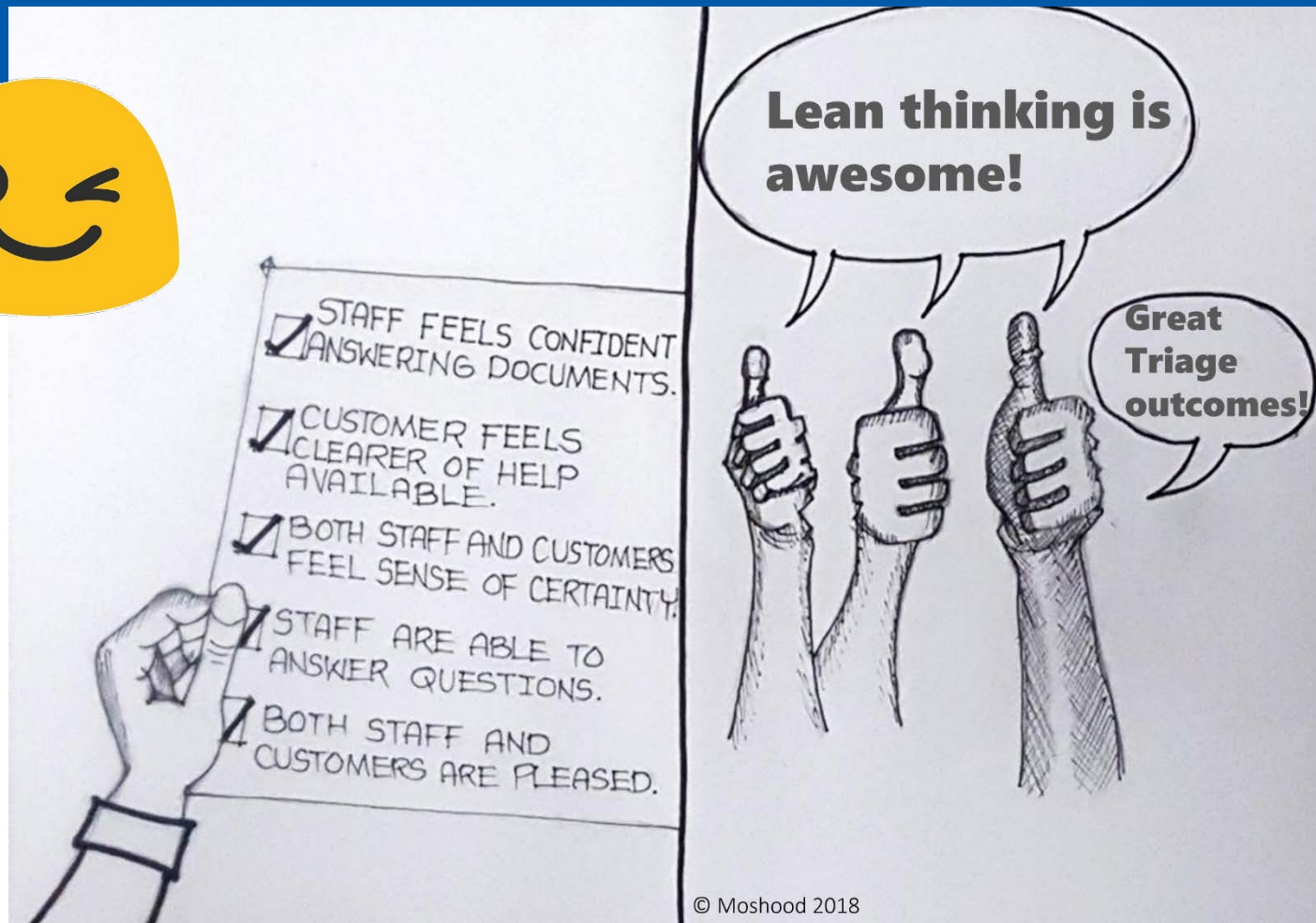


**Plan, Do, Check and
Adjust (PDCA)**

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Let us start the "PDCA"
concept with "TRIAGE" and
conduct small experiments
to learn and improve fast.





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PRE-ADMIT

Clients and home care team expectations of the care services will be aligned.

With this idea, clients will be more involved in the care service plans...

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PRE-ADMIT

Very clear!

安心

Peace of mind

Barthel
Nurse

In addition to my explanation, you can always read through the care service guide anytime you need it.

We fully understand and agree with the proposed care service plan.

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TARGET ACHIEVED

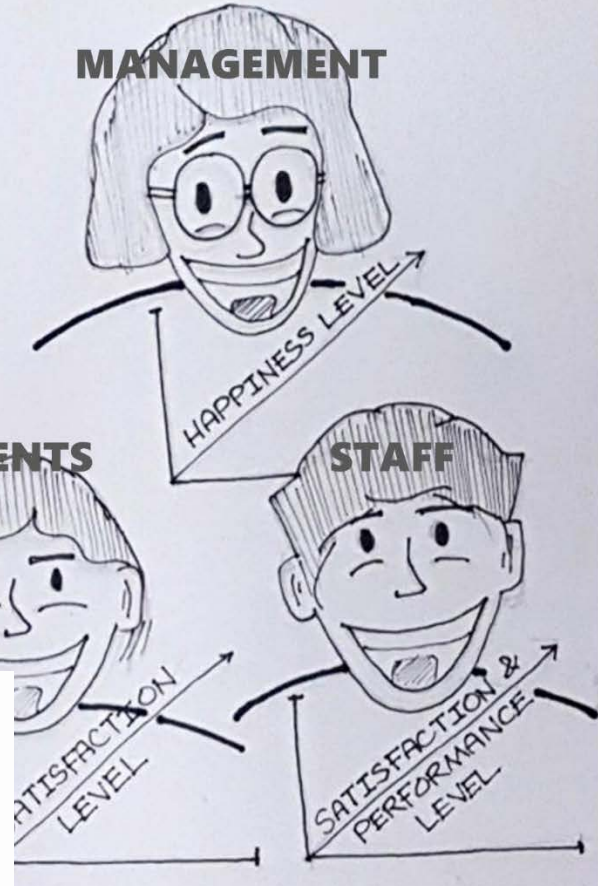


© M

MANAGEMENT

CLIENTS

STAFF





An American Healthcare Transformation Story...



Lean Transformation at Lynn Community Health Center

The story of

Kiame Mahaniah M.D., CEO

Bernadette Thomas DNP, COO

Kimberly Eng, COS

Alice Lee, LEI



As shared by John Shook

VALUE-DRIVEN PURPOSE

*“How do we transform a whole community
by transforming its most important asset?”*



co-learning partners

Lynn Community Health Center Co-Learning Partnership



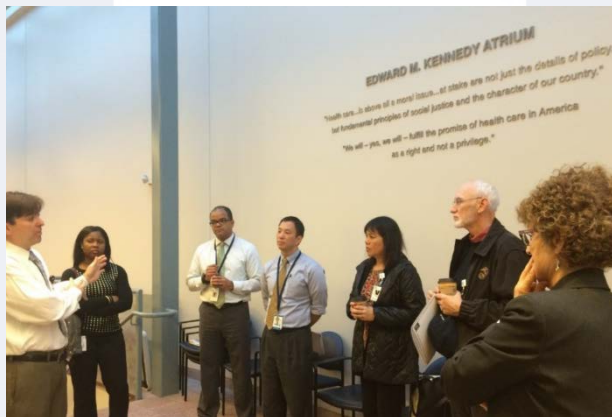
VALUE-DRIVEN PURPOSE

*"How do we transform a whole community
by transforming its biggest asset?"*

Volume is increasing
month after month but
visits per FTE have
been declining for over 5
years

We have a
productivity
problem!

Let's go
faster!



Demand is high,
but you are seeing
less patients?

What is actually
happening in the
work?

How can we
learn quickly
together?

Who owns improvement?

**BASIC
THINKING**

Who improves my work?

Lynn Community Health Center Co-Learning Partnership



Start with the WORK



Build Capability – Grasp the Situation

What is currently happening?

Blue Team
Main Building – 2nd Floor
Segundo Piso

Provider: lee

Appt Time: 10:00

Reg Initials: ja

1) Arrived on Blue: 9:44pm
2) CA called in: 9:46
3) CA done rooming: 9:55
4) Other (start): _____
5) Other (end): _____
6) MED in room: 9:56

[Orange sticky note]

NO WAITING FOR PROVIDER!

Time from CA done rooming
to when pts see provider

0-5 min

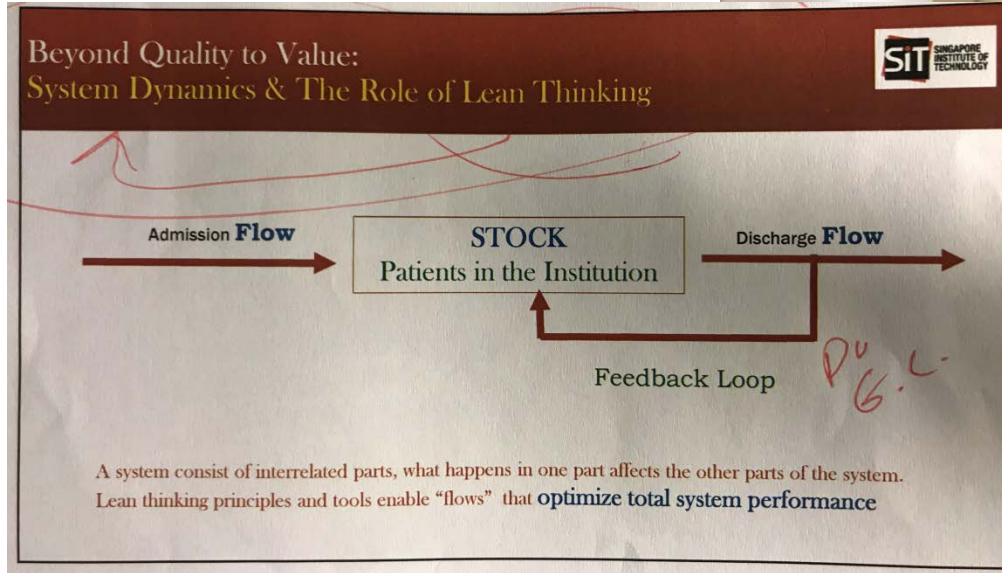
5-10 min

10-15 min

15+ min



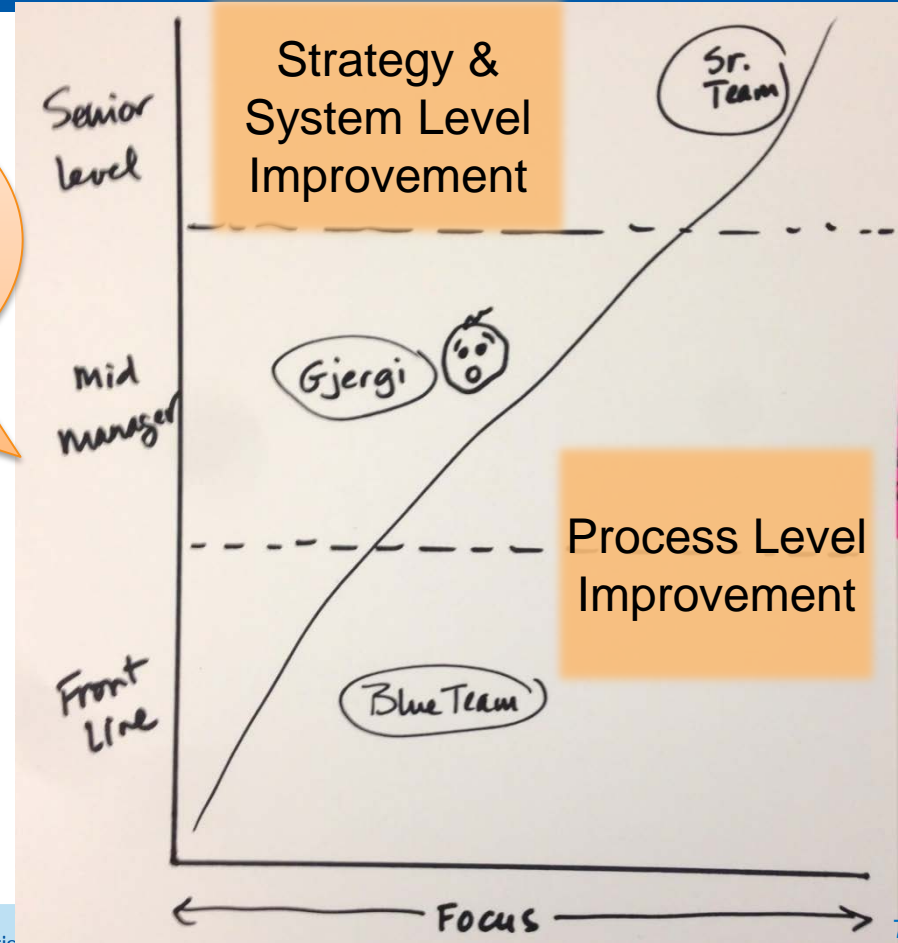
Build Capability – Build Confidence



More Problems – More Questions!



*Are we solving
problems at the
appropriate
level?*





Next Level Problems: “Design it Right Upfront”



Full Scale Mock-up

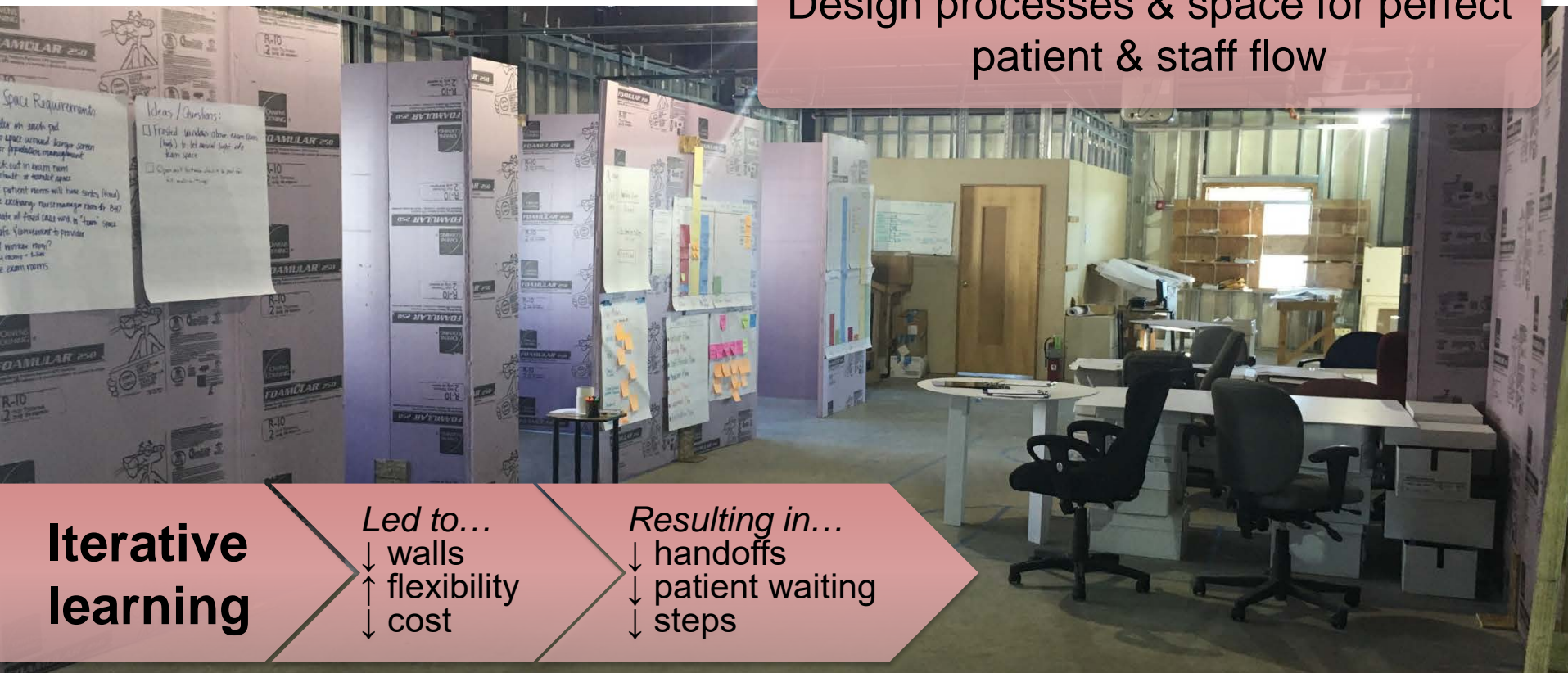
Physical & Process Simulations –
Tested design alternatives through scenarios considering:

- Volume
- Patient Mix (different diagnoses)
- Provider Mix (specialties, role)
- System constraints (hours of service, union rules)
- Variation (day of week, seasonality)

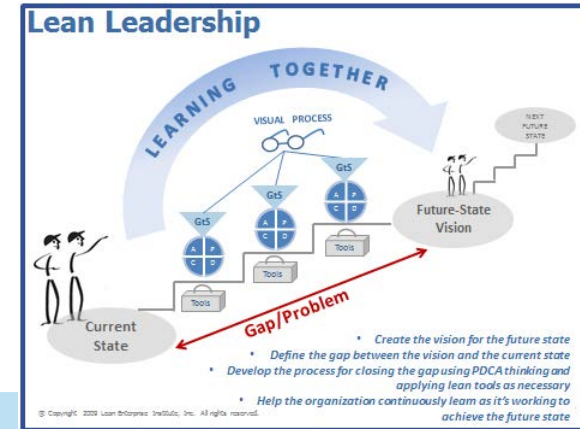
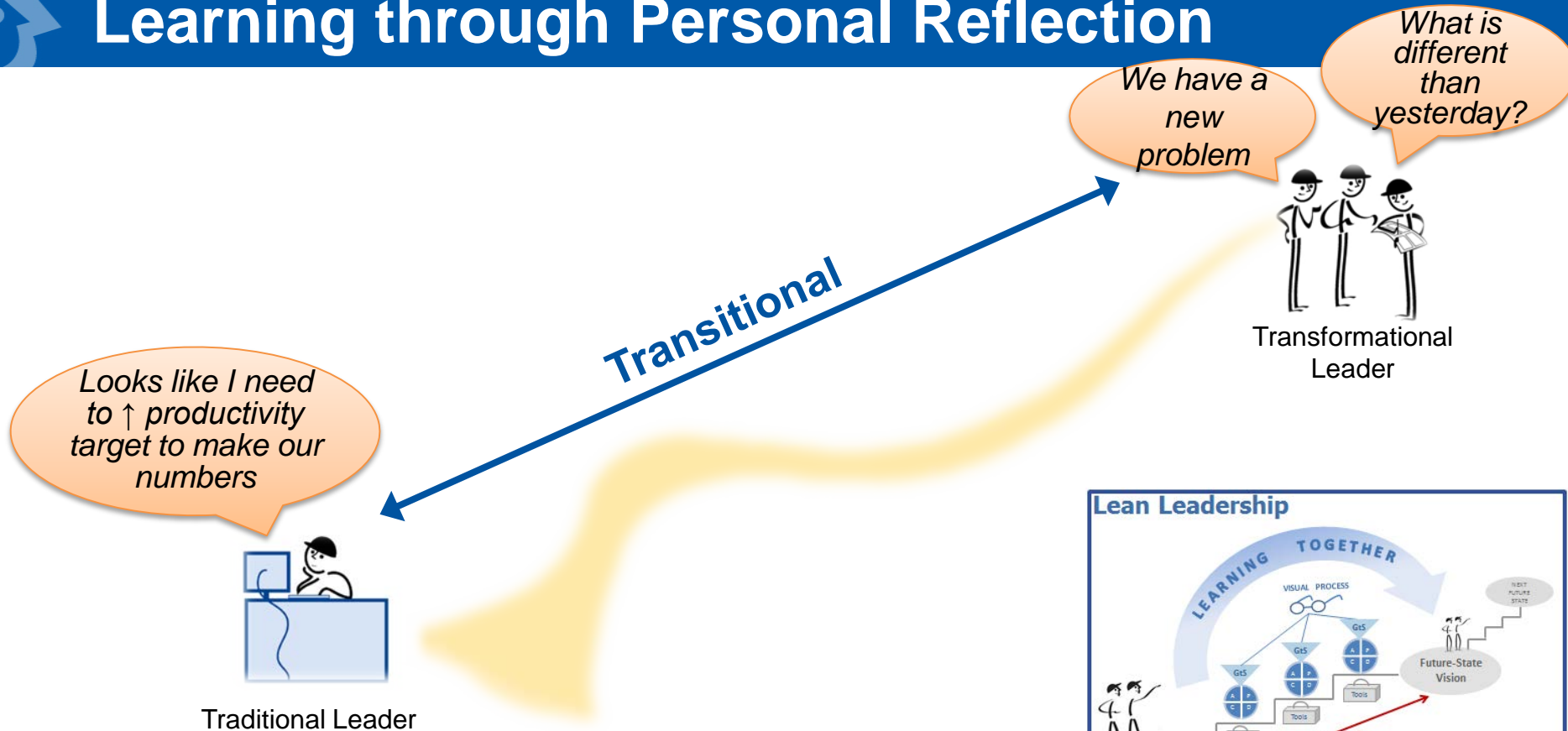


Next Level Problems: “Design it Right Upfront”

Design processes & space for perfect patient & staff flow



Learning through Personal Reflection



New CEO Kiame: Learning Through Personal Reflection

**MODEL LINE
WORK AT TEAM
LEVEL**



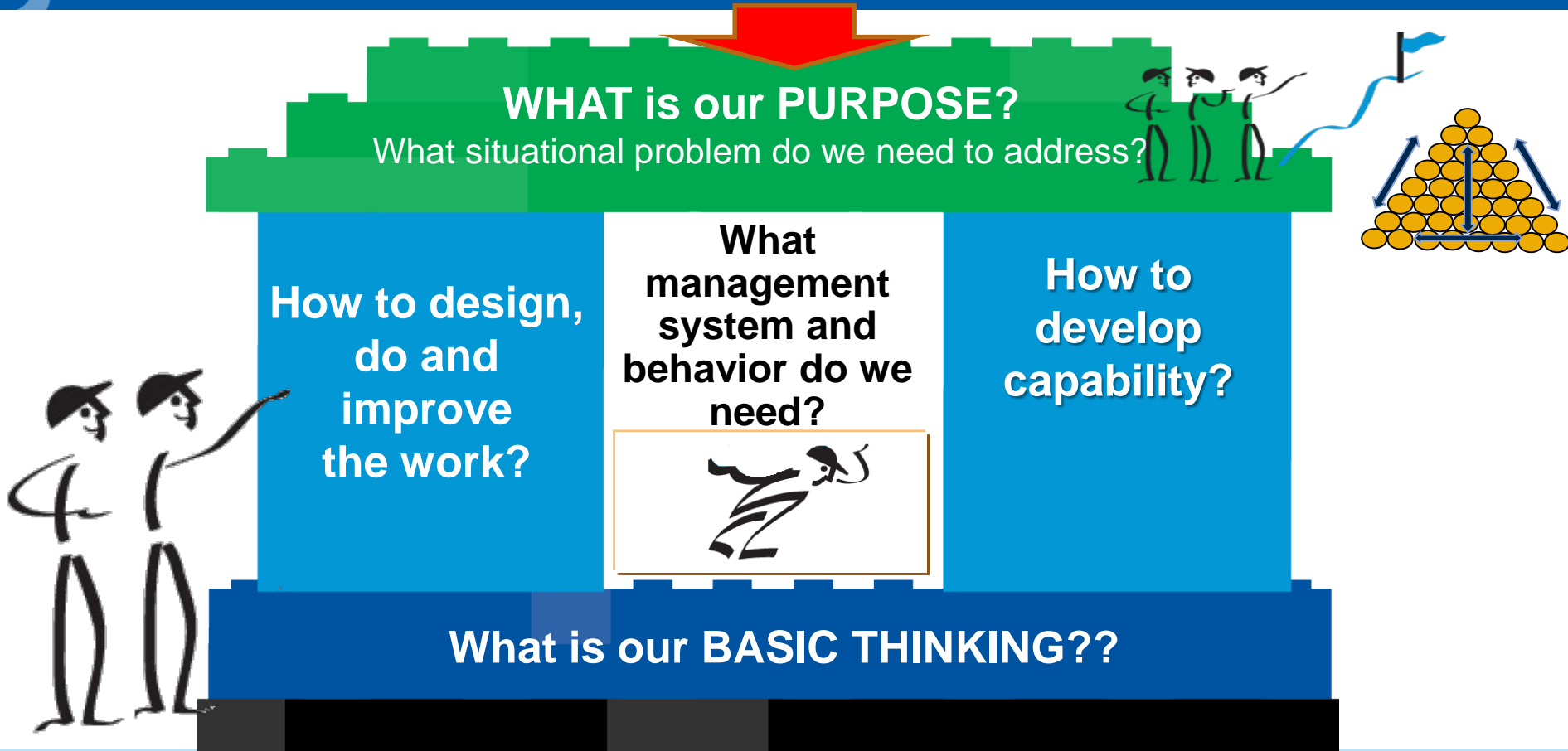
"Operations are a reflection of management"

I see myself ... HERE

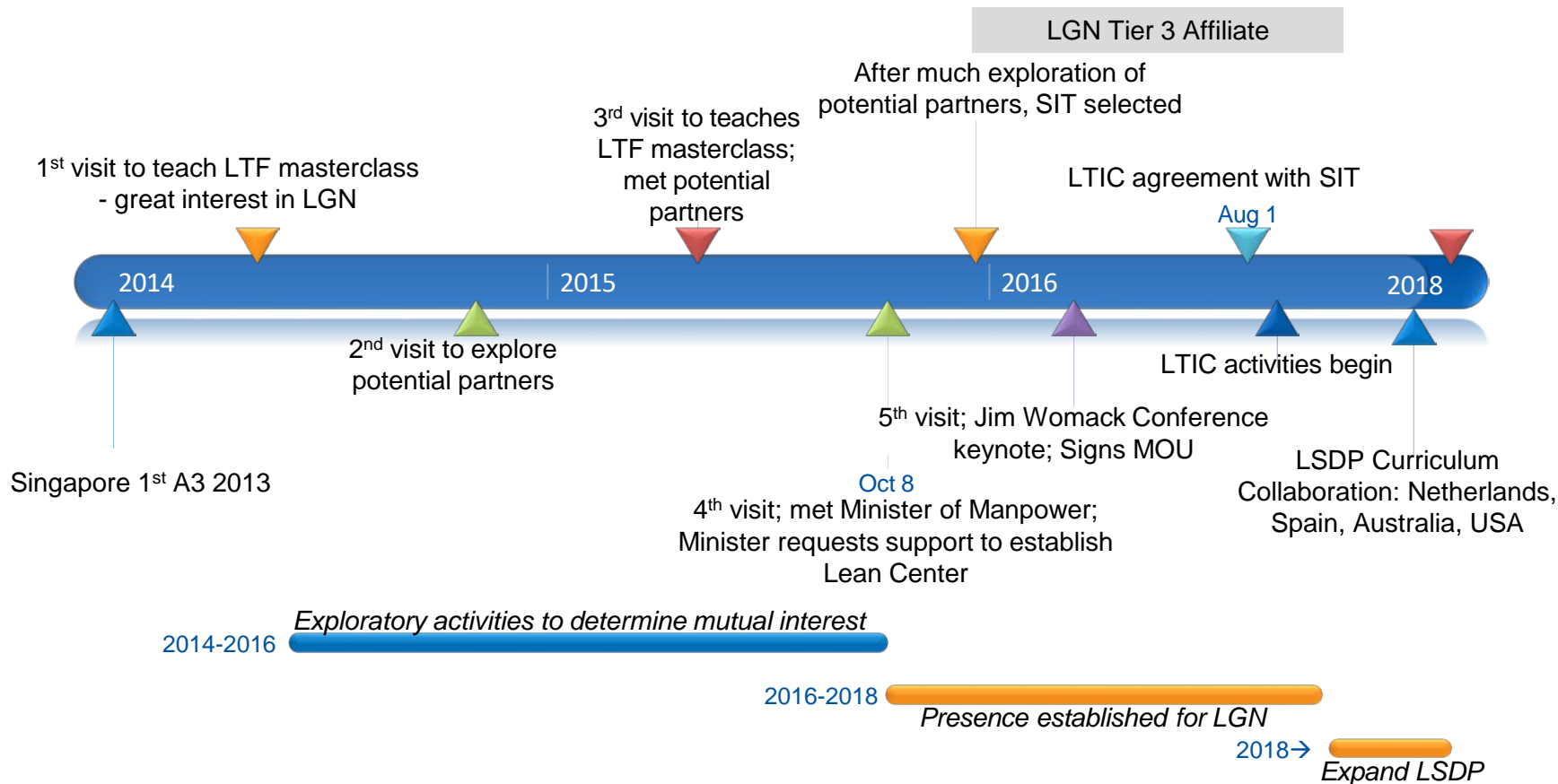
Starting with the WORK with CEO Dr. T Chua National Heart Centre Singapore



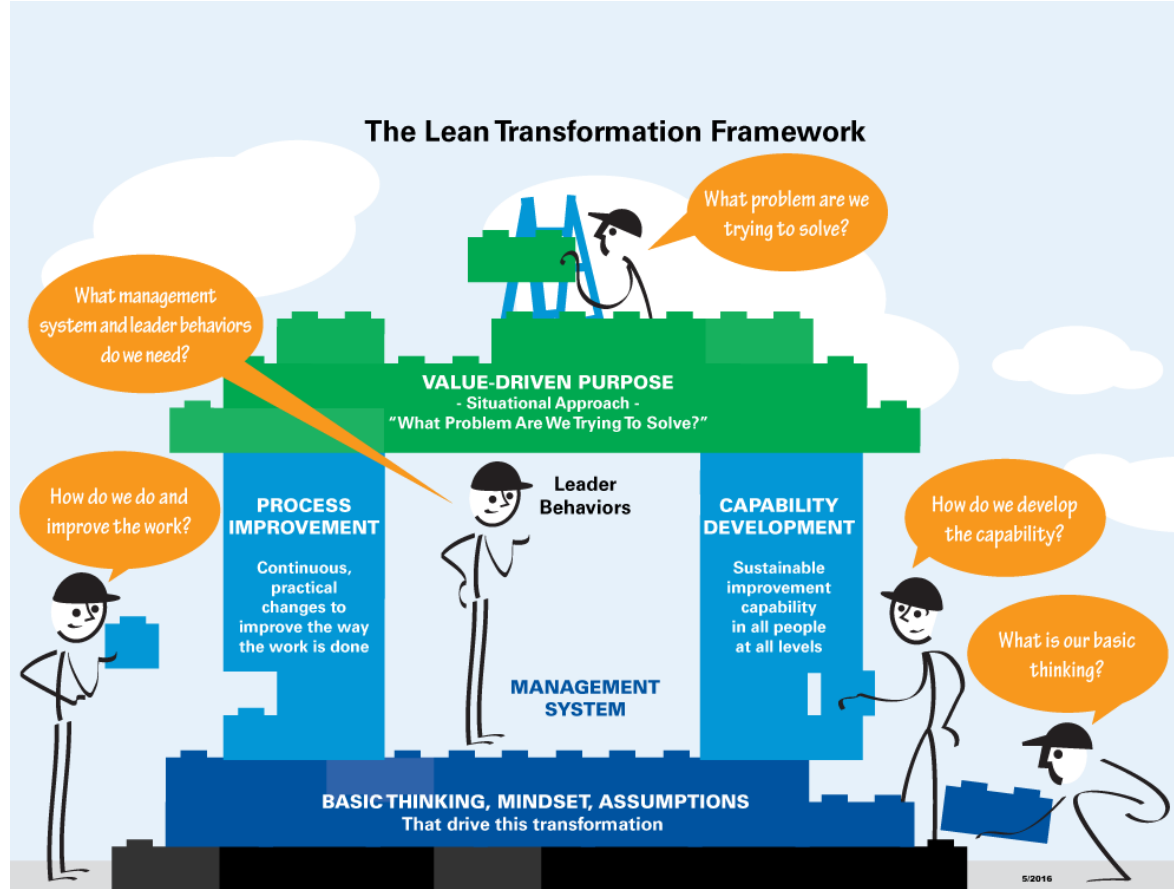
Your Failure Mode is Somewhere in Here



LGN Activities in Singapore (2013-2018)



The Lean Transformation Framework

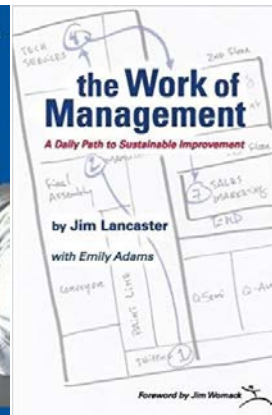
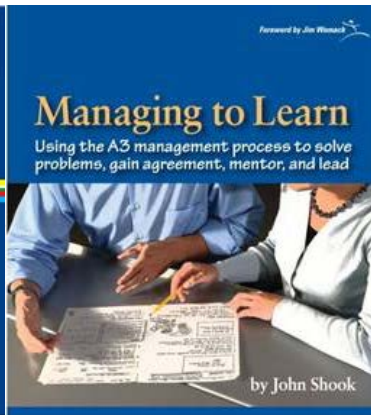
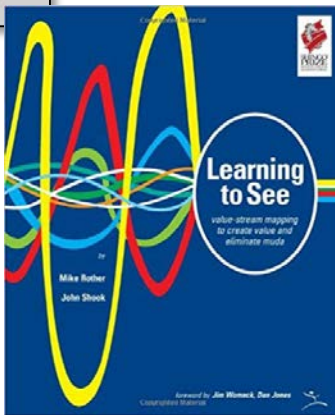
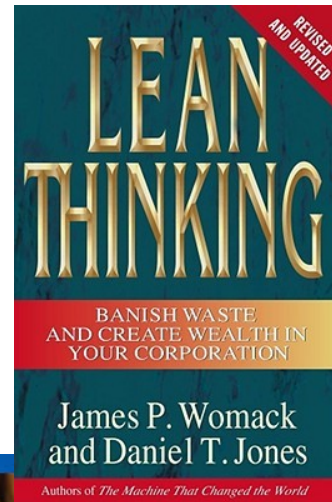
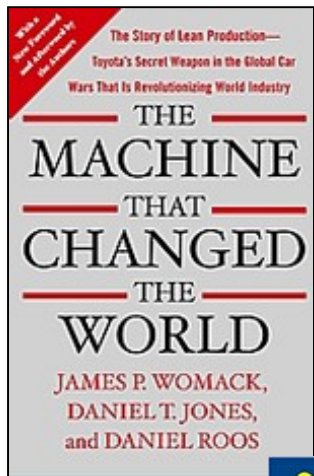


So: Lean Transformation as a Process of Endlessly Addressing a Set of Fundamental Questions

1. What is our *purpose*, what *value to create*, or what *problem* are we trying to solve?
2. How do we *design, do, and improve* the *actual work*?
3. How do we identify and *develop the capabilities* we need?
4. What *management system* and *leader behaviors* are required to support the new way of working?
5. What *basic thinking, mindset* or *assumptions* underlie this transformation?

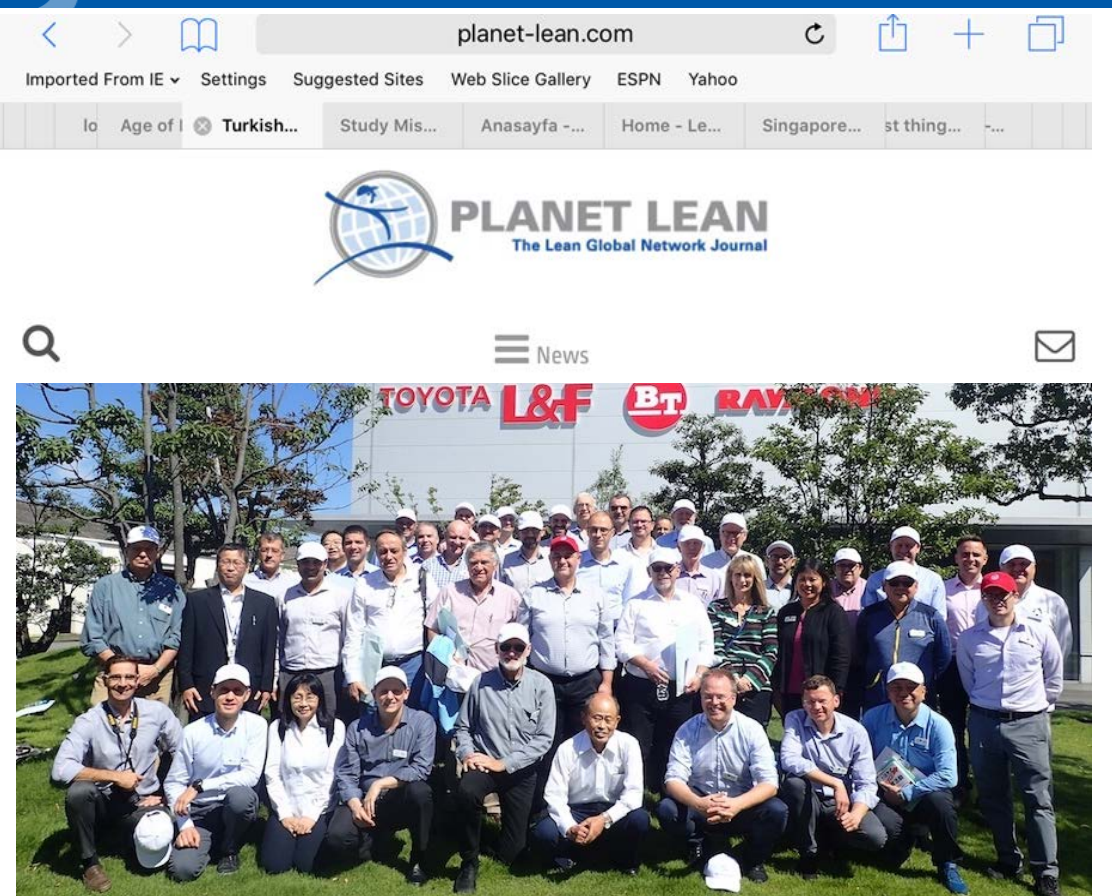
**What to do, why,
and how to do it**

Continuing a Movement






Spreading Learning: LGN's Online Journal Planet Lean



Jim Womack's Monthly
Column: "YOKOTEN"

planet-lean.com


Spreading Learning...

 **PLANET LEAN**
The Lean Global Network Journal

🔍 Features ✉

📅 14 March 2018 By: Doug Rickarby

How we secured a future for employees at Toyota Australia



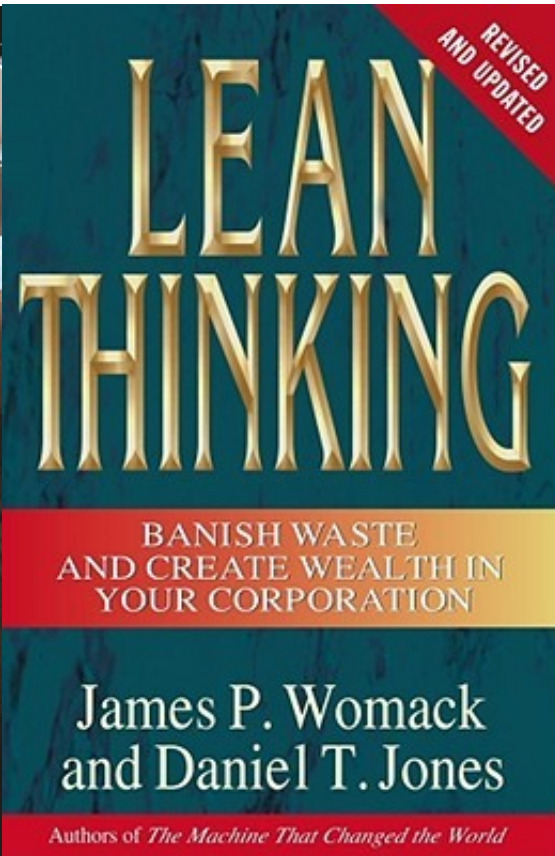
FEATURE – Last year's shut-down of Toyota's Altona plant in Australia moved us all. Here, the former Divisional Manager of Manufacturing offers a first-hand account of how the company made the most of a terrible situation.

Words: Doug Rickarby, former Divisional Manager of Manufacturing at Toyota Australia

Two years before shutting its factory doors last year after 25 in Australia, Toyota began an upskilling and reskilling program that helped 75% (2000 of 2600 – others decided to retire or simply went their own way) of its workforce learn new skills so they could get new jobs.



Spreading Learning...





Spreading Learning...

Inspiration from a real story with practical hints for anyone:



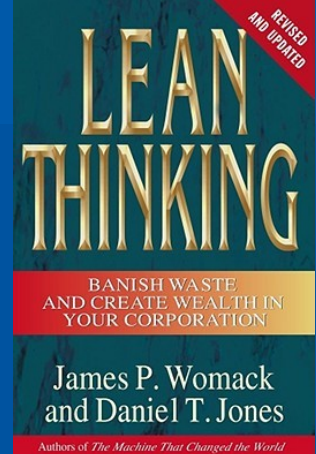
The Lean Bakery

Removing waste to get closer to your customer

by **Juan Antonio Tena** and **Emi Castro**

with Roberto Priolo

Follow the Learner





Spreading Learning...



Inspiration from a real story with practical hints for anyone:

- From mass to lean thinking
- Stop!



The Lean Bakery

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Follow the Learner





Spreading Learning...



The Lean Bakery

*Removing waste to get closer
to your customer*

by **Juan Antonio Tena** and **Emi Castro**

with Roberto Priolo

Follow the Learner



Inspiration from a real story with
practical hints for anyone:

- From mass to lean thinking
- Stop!
- Rethink everything!
- Change the work – a revolution!
- From central bakery to dozens of shops
- From direct operations (bake, transport, sell – sell, bake, transport) to support – HR (recruit, hire, develop)

