

Simplifying your Lean Lab Transformation






How to Do It Right and Make It Last

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Learning Objectives

The student will be able to:

-  Develop the appropriate model of continuous improvement in alignment with organizational goals and objectives
-  Describe the benefits of a culture of continuous improvement as it applies to operational successes
-  Understand do's, don't and pitfalls associated with implementation of Lean management

Back Ground

- 🌐 Henry Ford- Pilot in Surgical Pathology called The Henry Ford Production System
- 🌐 Implementation of a Toyota Motor Corp. based approach to continuous improvement to the laboratories
- 🌐 Adoption of the 14 principles described in the Toyota Way by Jeff Liker
- 🌐 Worker empowerment- 800 people
- 🌐 Organizational structure for change
- 🌐 Developed a team foundation
- 🌐 Achieved thousands of improvements yearly

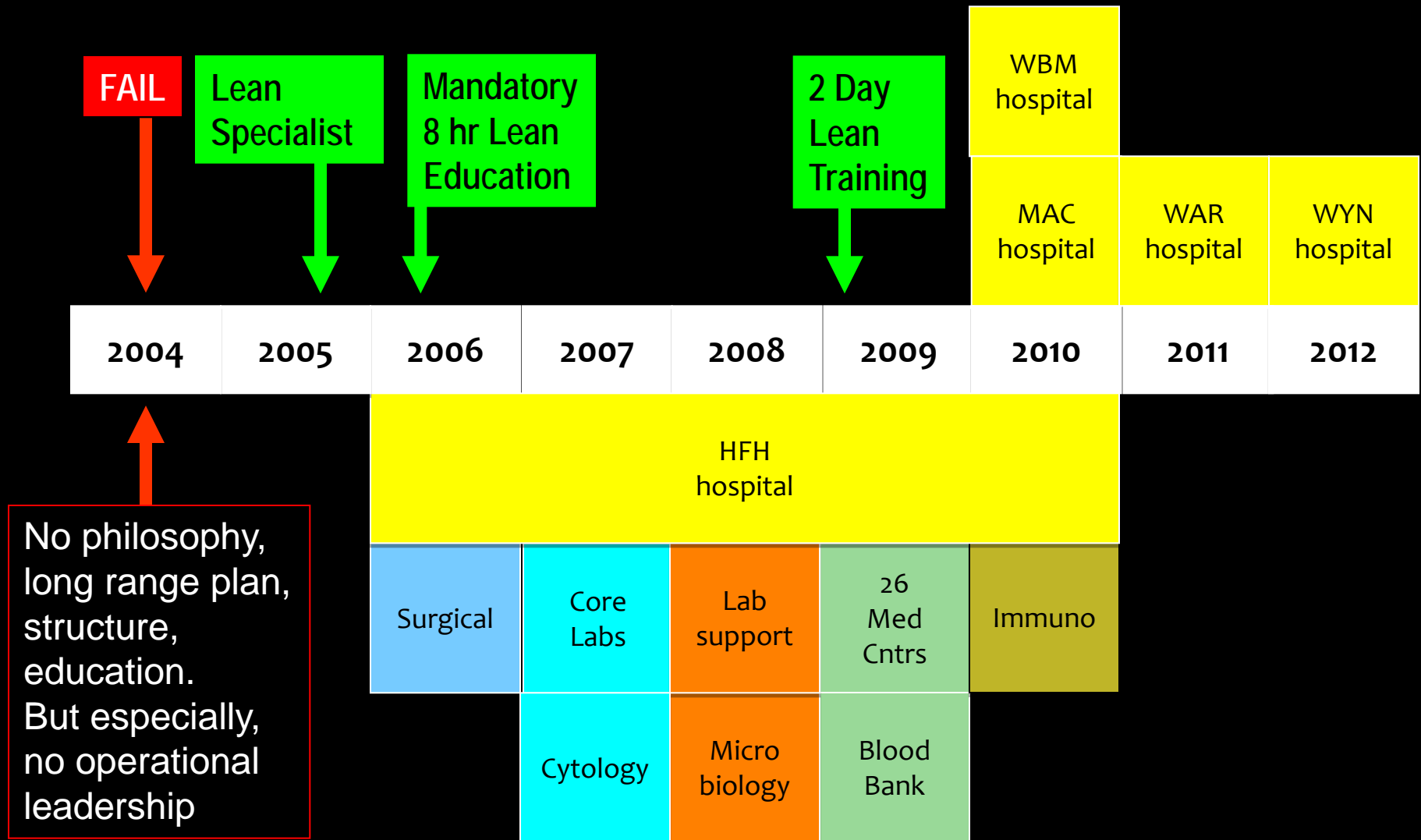
Departmental Vision

Mission, Vision, Values

“HENRY FORD PRODUCTION SYSTEM”

- 🌐 Best in class integrated laboratory Service
- 🌐 Every life deserves a world class laboratory
- 🌐 Culture of Continuous Improvement and Innovation
- 🌐 Relentlessly Perusing Perfection
- 🌐 At the Level of the work by empowered employees in teams using PDCA
- 🌐 “0” defects

Lean Progression



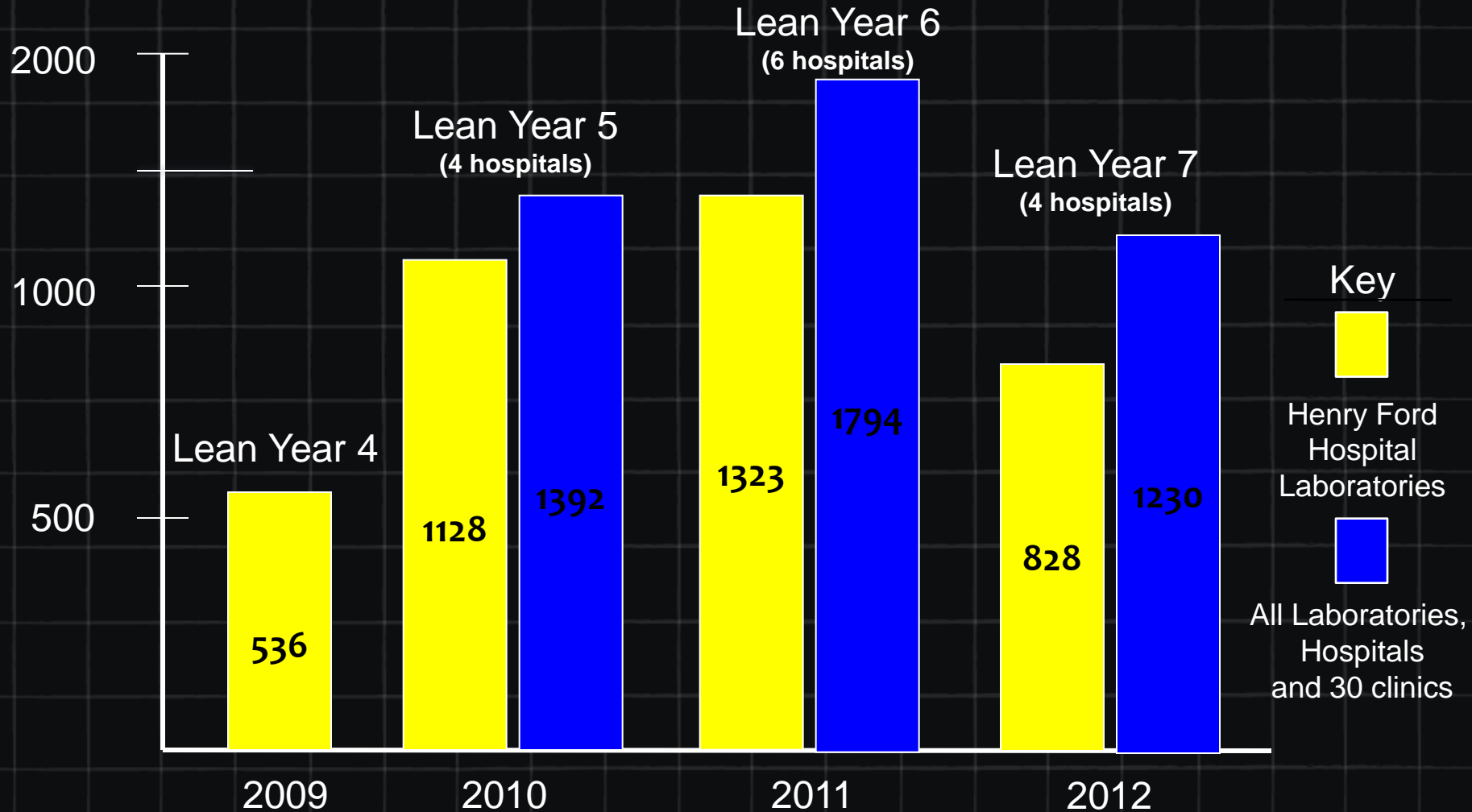
Successful Initiative

- Thousands of improvement annually \$\$\$\$\$\$\$\$
- Reduction of waste, inefficiency, time and cost
- Worker empowerment
 - All workers involved, accountability, hands on continuous improvement
- Standard problem solving methodology
- Managers who lead as Lean Champions
- Leader – Creates a burning platform for change ✓
 - Leader aligns organization towards strategic goals

Total Process Improvements

Henry Ford Production System

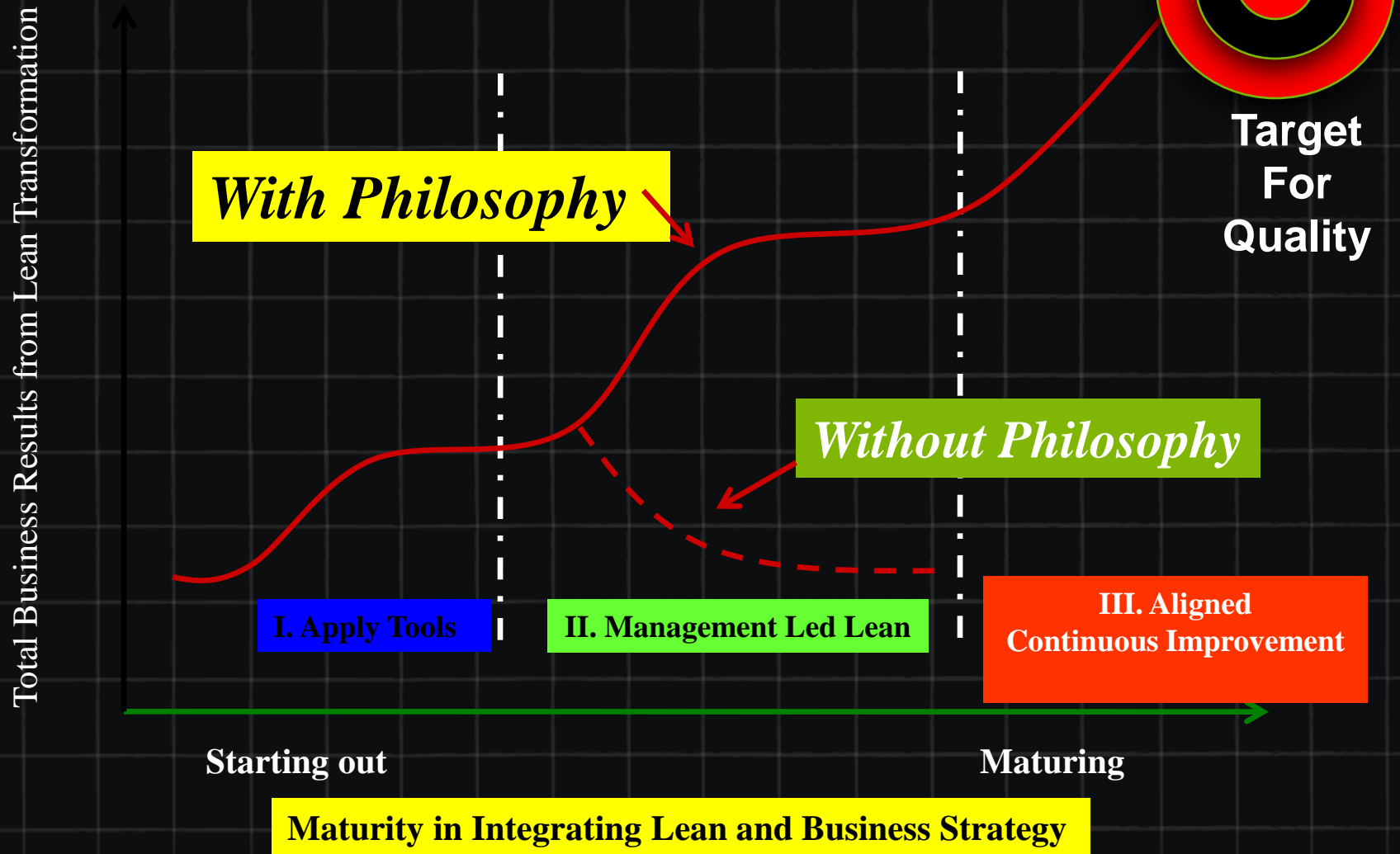
Empowered
Work Teams



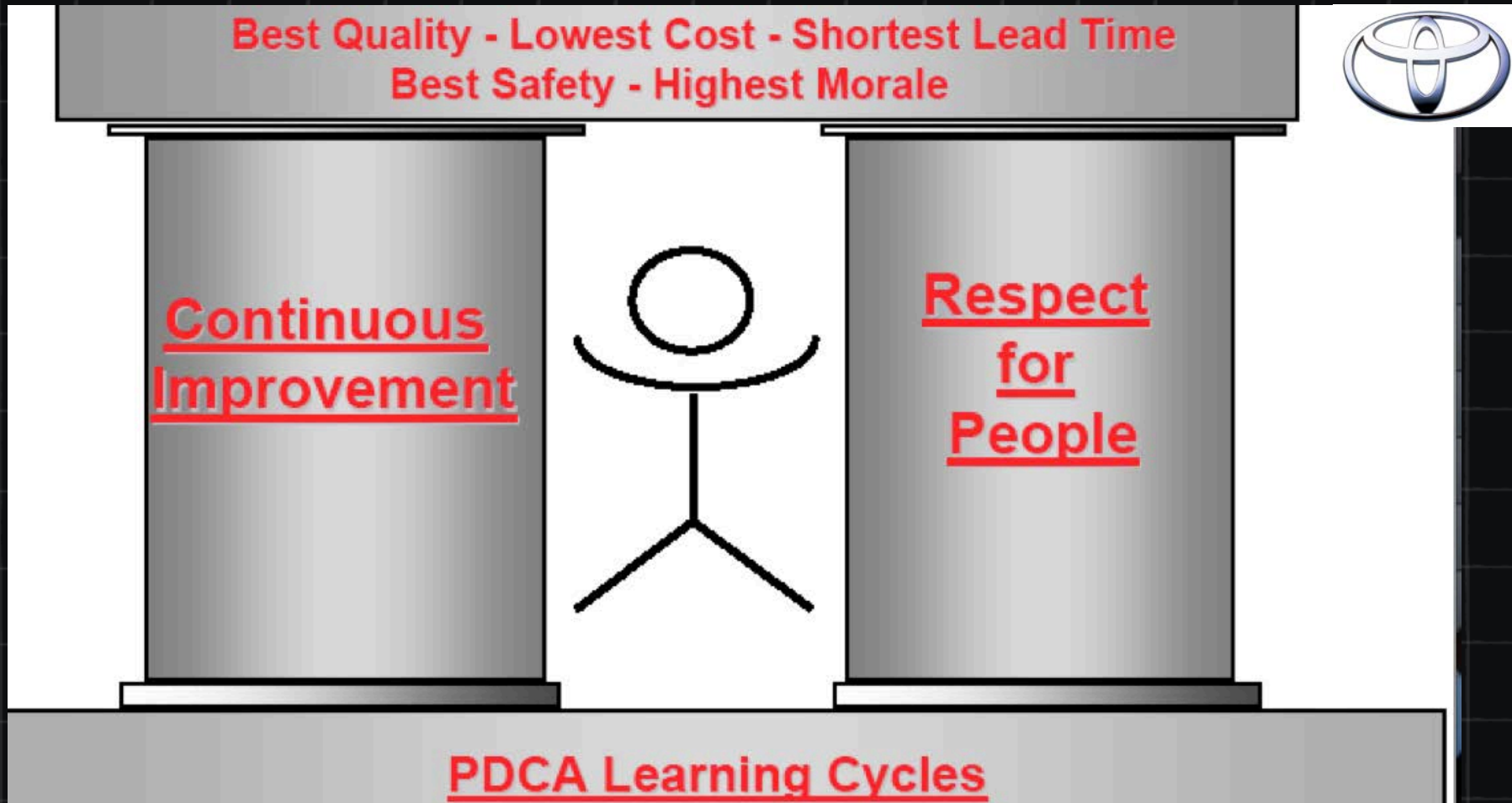
What does Lean success look like?

Managing Towards the Goal

Results as Lean Evolves to Aligned Continuous Improvement



Based on the Following



www.leanblog.org

What is the Philosophy?

1. Principles
2. Methodology

The 14 Principles

- ✓ 1. Long Term Philosophy- Base your management decisions on a long term philosophy, even at the expense of short-term financial goals

LEAN PROCESSES

- ✓ 2. Create continuous process flow
- ✓ 3. Use the “Pull System”
- ✓ 4. Level out the workload
- ✓ 5. Build a culture of continuous improvement by stopping to fix problems to get quality right the first time. Every hand-off is correct EVERYTIME
- ✓ 6. Standardization of tasks are the foundation for continuous improvements & employee empowerment
- 7. Use visual controls so no problems are hidden

14 Principles of Lean (Cont.)

- 8. Use only reliable thoroughly tested technology that serves your people and processes

PEOPLE & PARTNER RELATIONSHIPS

- 9. Grow Leaders
- 10. Develop People
- 11. Respect your suppliers, challenge & help improve

PROBLEM SOLVING & CONTINUOUS IMPROVEMENT

- ✓ 12. Go and See for yourself to thoroughly understand
- ✓ 13. Decide carefully by consensus, Implement Rapidly
- 14. Become a Learning Organization, through relentless reflection & continuous improvement

Liker: The Toyota Way, 2004.

Implementing Successful Change

“The effort is usually a time consuming and highly complex 8-step process, never a 1-2-3, hit-and-run affair”

1. Create a sense of urgency
2. Put together a strong enough team to direct the process
3. Develop a change vision
4. Communicate that new vision for buy-in
5. Empower employees to act and remove barriers
6. Produce sufficient short-term wins
7. Never let up
8. Incorporate change into the culture

9. problems

10

“Managers who opportunistically skip steps or proceed in the wrong order rarely achieve their aspirations”

Looming Challenges

- It is estimated that only 10% of Lean initiatives succeed, meaning that 90% percent fail. (Liker, personal communication, 2011)
- So what is the underlying cause of that 90% failure rate?
- Lean management is first a business system
 - Senior leadership must effectively lead, implement and drive the organizational initiative
- Lean is not just about the tools
- The leadership, management and workforce expectations must be structured, communicated and accountable



Question

 **Can a successful implementation model of Lean Management be duplicated?**

**Take the “best of the best
from Henry Ford
Pathology” and apply it to
other areas**

Jeff Liker, 2012

Model Line; Women's Health Services

1. Leadership Meeting
 - a. Mission, Vision, Values
 - b. b. Goals
2. Kick off meeting to communicate to staff
3. Observation Sessions
4. Training – 14 principles/VSM
5. Organizational Structure and team formation
6. Team Lead Meetings
7. Customer -Supplier Meetings
8. Process Improvements - Scientific Method
9. Share the Gain
10. Continuous Improvement

Organizations



Pathology & Laboratory Medicine
Henry Ford Health System



Incyte Pathology Group
Washington State

Clinical Medicine



Women's Health
Services



Joint Pathology Group, Washington DC
Guard Shack armed by Military police
carrying M-16's

Model for Change

10 Objectives

1. Senior leadership buy-in
2. Strategic mission, goals, objectives
3. Effective communication of the vision by the leader
4. Identification and manage cultural differences
5. Operational reporting structure
6. The formation of teams
7. Application of Plan, Do, Check, Act, or the scientific method
8. Worker empowerment
9. Communication
10. Employee Recognition

Discussion

Objectives

Most successful characteristic based on:

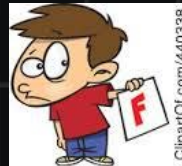
Prior experience and Literature



Challenges



Pitfall and failure points



Frustration



Lessons Learned

Leader Led Initiative



Objective 1 :

Establishment of top leadership buy-in necessary in order to effectively lead, implement and drive an organizational initiative

The leader communicates the long term vision for the group

Kick-Off Meeting

“There must be consistency in direction.”

W. Edwards Deming

1. An Initial kick off meeting with staff articulated a clear set of directives
2. Initiate a culture change of continuous improvement
3. The Leader shared the mission, vision values and the following important key message with staff



Leader Involvement



Actively engaged
and listening



Leaders engage and participate in process improvement

Leader Participation



Problem Solving Sessions

Pathologist Team: Dr. Baker & Division Heads

Most Successful Characteristic

- 🌐 Leadership who perform the following:
- 🌐 Own, direct and communicate to staff that a new initiative is in order
- 🌐 Conduct weekly organizational team lead meetings to discuss continuous improvement **strategy and tactics**
- 🌐 Attend meetings either in person, by conference call or webinar, to recognize all employees who dedicate their discretionary time to process improvements in order to better serve the organization
- 🌐 Empower the staff to eliminate any fear of reprisals within the organization
- 🌐 Consistently drive the initiative daily

Successful Leader?

- A Transformational Leader is considered the most successful leader:
- The characteristics of these leaders are
 - Confident
 - Visionary
 - Need for power
 - Understand the strengths and weakness of their followers
 - Ability to empower, guide, support and influence others to affect and sustain change in organizations

Transformational Leaders develop a vision and drive change and culture, influence people and transform the status quo within organizations

Challenges

🌐 **Major change requires taking risk without fear of failure**



” Successful leaders know that “Getting things done in organizations depends on power and influence.” Antonakis et al (2004)

Failure Points

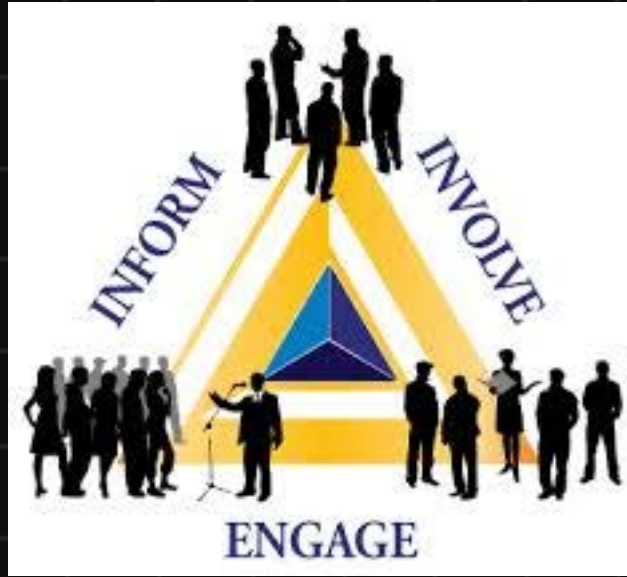
- 🌐 The well intended leader sends “A direct report” to learn about continuous improvement and implement the culture at the firm

Failure is simply the
opportunity to begin again,
this time more intelligently.

Henry Ford



Strategy and Policy Deployment

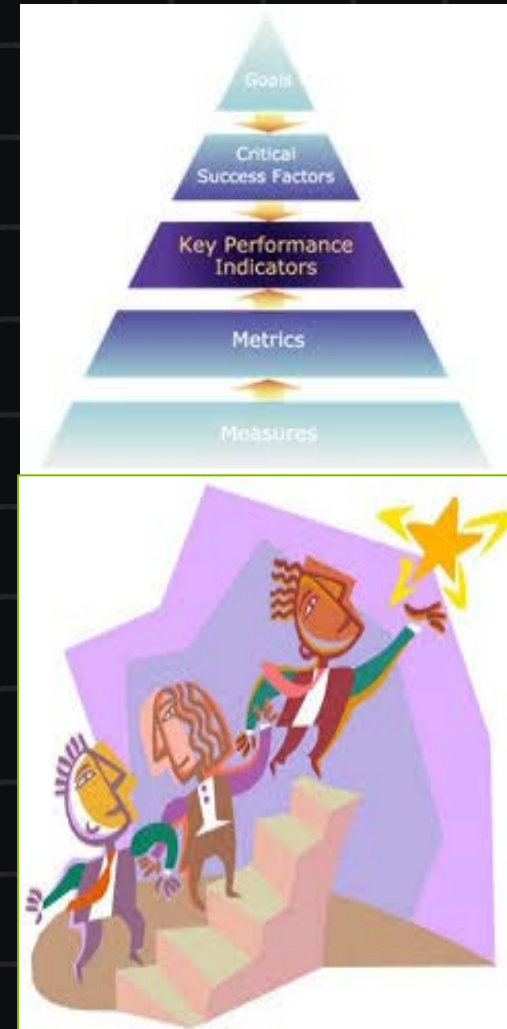


Objective 2

Establishment of a strategic mission, goals, objectives and desired outcomes that must be created and communicated prior to a Lean initiative

Most Successful Characteristic

- 🌐 Strategic plan for an organizational road map for all to follow
- 🌐 Managers/staff are aligned with the path forward
- 🌐 Employees interact with leadership to align local improvements towards key performance indicators



Failure Points



1. No alignment of corporate objectives

1. No frame work, structure for improvement

1. Silo mentality

2. NO STRUCTURE FOR CHANGE

1. No incentives

1. Few improvements a year by the quality staff

Communication







Objective 3:

Effective communication of the vision by the leader throughout the organization so all employees can understand the mandate for change

As the mission is shared, employees become prepared with the path forward, therefore aligning their individual and/or departmental efforts with the long-range goals of the organization

Most Successful Characteristic

-  The leader develops a mission, vision and goals for the organization and shares with all employees
-  The leaders sets the expectation of leader, manager and supervisor
-  The leaders empowers the worker. YOU are the expert and I expect your participation and involvement
-  All staff receive continuous improvement and education

Failure Points

- 🌐 Fear and blame
- 🌐 No road map for change
- 🌐 The employee performance incentives are not aligned with the goals of the leader
- 🌐 Training and education is not directed toward the organizational objectives
- 🌐 Rumors and hearsay within the organization, but no one really know their role or responsibility



Culture Differences

Objective 4.

Identify and manage cultural differences, which exist within cross departmental or multi – site organizations



Military environment



Relaxed environment

Most Successful Characteristic

- 🌐 Identification of cultural issues
- 🌐 System-wide weekly operational meetings to discuss common issues effecting all locations
- 🌐 Leadership visit all locations on bi-monthly basis to show their presence and to personally work on cultural issues
- 🌐 System work groups to set the common ground and standardize policies, procedure and processes

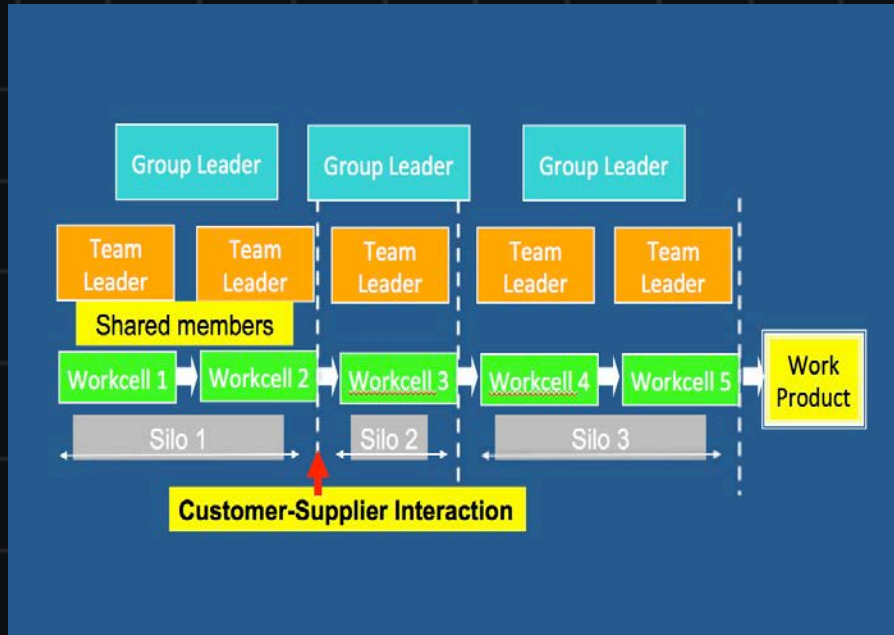
Failure Points



Culture is defined as “ How we do things around here”

1. Organizations that do not address cultural issues
2. In order to change the culture and/or reorganize an existing culture it is important to understand how to communicate change so **employees can find the value**

Reporting Structure



Objective

5. Development of a functional operational reporting structure where teams understand how change is managed throughout the organization

This structure provides a guide to inform people how to meet expectations for process improvement by the worker. The employee will revert to doing the easy thing that is usually a rapid fix and that will not resolve the underlying problem

Goals of a Defined Structure

1. Employees to interact horizontally along the path of workflow as they resolve defects and eliminate waste and inefficiency
2. Educated empowered employees are aligned within a team environment where change is meaningful to them

As stated by Zarbo (2011), “In a true Lean management culture you as the leader don't have to have all the answers anymore. Your people do. The answers you provide are the organizational structure, reporting relationships, accountability, pace, recognition and reward and incentive to work in the new order. “Without team formation Zarbo, explains, “There will be potential chaos with so many anxious to use their new found empowerment.”

Identify Leaders

- Who have a passion for quality improvement
 - Are open to feed back and direction
 - Have the respect of their teams
 - Are recognized as leaders within the organization
 - Are able to work well with others



Challenges

- 🌐 Difficult recruitment process
 - 🌐 Who would like to step forward and serve as team lead?



Most Successful Characteristic

- 🌐 Development of a formal process in which employees interact
- 🌐 Employees understanding the structure to accomplish strategic goals
- 🌐 Team collaboration between the 3 dimensions of leaders, managers and teams on various shifts, across departments and throughout integrated systems

Failure Points

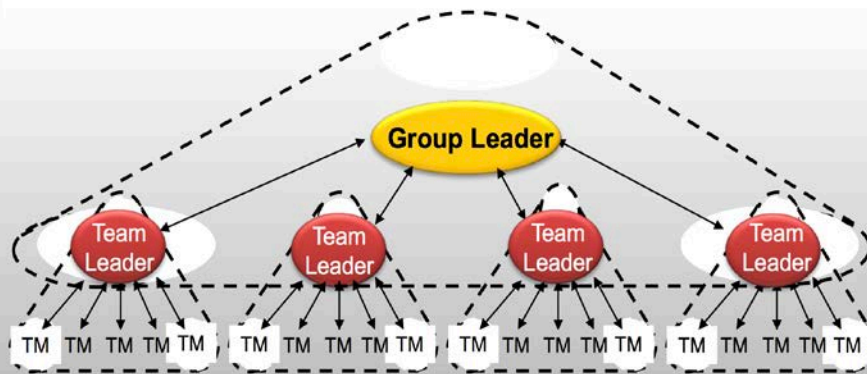


1. Disorder and lack of standard to efficient passageways from one production point to the next
1. Lack of sense of team
2. Every man for himself

Team Formation

Objective 6.

The formation of teams in order to effectively work across the value stream



Notes

Ideal TL:TM Ratio= 1:5

Group Leader (GL) = 1st level of management

Team Leader (TL) = Alternates working production and leadership roles.

Team Member (TM) = Production worker



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The key to transformation: Appropriate organizational structures are developed, aligned and communicated as the process of change

Team Formation

- 🌐 Create an expectation of behavior change in an environment where improvement is efficiently organized and managed
- 🌐 Promote strategic goals and performance that will promote incentives and motivate employee participation
- 🌐 Continuous training and education to provide employees the understanding, skills, tools and methodology to work in this manner
- 🌐 Employees to feel free to promote and lead change, leaders

Free of blame and obstacles



Team Lead Meetings

A result of the formation of teams-

Weekly team meeting is necessary to drive the initiative and discuss continuous process improvements

Medical Division Head



Most Successful Characteristic

Team structures that are designed to address the following questions:

- 🌐 *What is the goal?*
- 🌐 *How will we get there?*
- 🌐 *Who will help us achieve our goal?*
- 🌐 *What is the customer expectation?*

Challenges

- 🌐 **Too Busy=A few employees resisted weekly meeting involvement**
- 🌐 **Employees who can't relate to process improvement/change- BODY LANGUAGE!**
- 🌐 **Few members engage – others check out.....**

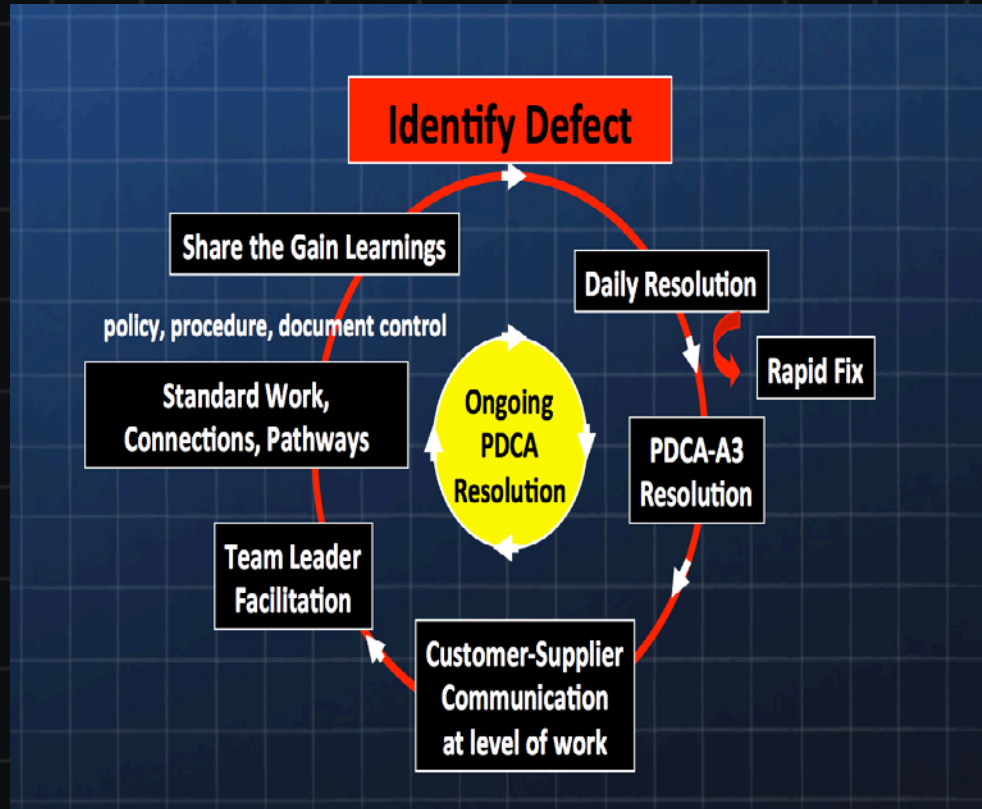


Failure Points

1. Micromanagers make all decisions
2. Employees are not allowed to speak up
3. No team leader assigned to facility
4. No participation from employees



Methodology for Change



Objective

7. Application of Plan, Do, Check, Act, or the scientific method, to effectively create change in a consistent manner

Most successful characteristic

- 🌐 Standardized problem solving approach based on a scientific method to tackle daily problems
- 🌐 Basic experiment to test proposals
- 🌐 A new process free of waste with refined and direct connections between customer and supplier
- 🌐 No looping or forking such that the path of work is linear and direct
- 🌐 Baseline data is collected, analyzed and change is made only if the results of subsequent data collection and analysis support the decision to accept the new condition as an improvement

Failure Points

1. Employee are not encouraged to participate in change
2. (has anyone asked for your opinion lately?)
3. No improvements outside of the quality department
4. No standard structure for change



Problem Solving work is encouraged and posted
for all to engage

Incyte Diagnostics

Worker Empowerment

Marketing Department

Division Head



Objective 8. Articulating the importance of worker empowerment and the benefits of **enlisting the entire organization** in the change process to accomplish continuous improvement

Through worker empowerment the pace of improvement throughout the entire organization is rapid and the processes of work evolve and optimize continuously toward a more perfect state of better quality, higher productivity and worker satisfaction

Empowerment

- 🌐 Employees are allowed to take responsibility for repairing defective processes that they own
- 🌐 Avenue and opportunity to share their successful outcomes
- 🌐 Recognition

Failure Points

1. Micromanagers make all decisions
2. Employees are not allowed to speak up
3. The employees have not been empowered to participate
4. Fear of blame
5. Fear of job loss




Continuous Improvement



Objective 9. Communicate of the importance of continuous improvement as an advantage to remain competitive in a global market place

Organizations that commit to continuous improvement, adapt more readily to the changing environment, stay ahead of the competition and remain profitable

Continuous Improvement

 The business strategy requires growth, change and organizational transformation

“ No matter how many times a process is improved or how many problems are solved, there will always be the opportunity for further improvement. The role of the leader throughout the company is to constantly keep peoples energy focused on continuous improvement rather than to become satisfied and complacent over past achievements.” Jeff Liker, (2011)

Most Successful Characteristic

- 🌐 Significant process improvements at the level of the work



Everyone Wins!

Failure Points

1. The inability to continuously drive the initiative
2. Lack of weekly meetings
3. Inappropriate leaders leading the initiative



Employee Recognition

Objective

10. Documenting knowledge, sharing improvements and disseminating best practices through employee recognition programs







The education from doing tied to the recognition and reward received by employees involved in process improvements resulted in promoting the next set of process improvements on an ever evolving and improving scale

Share the Gain

1. Share improvements with the organization that serves as a sustaining mechanism
1. Initial frustration by the employee working in a defective process is converted recognition, reward and the opportunity to feel they have value and are appreciated by the organization
1. Continuously engrain, solidify and sustain a new culture

Most successful characteristic

-  The leadership lends support and encouragement to employees
-  Employees are encouraged to participate in continuous improvement
-  Significant number of improvements are tallied each year
-  RESULTS: Top performing company

Failure Points



1. Leadership who take credit for all improvements

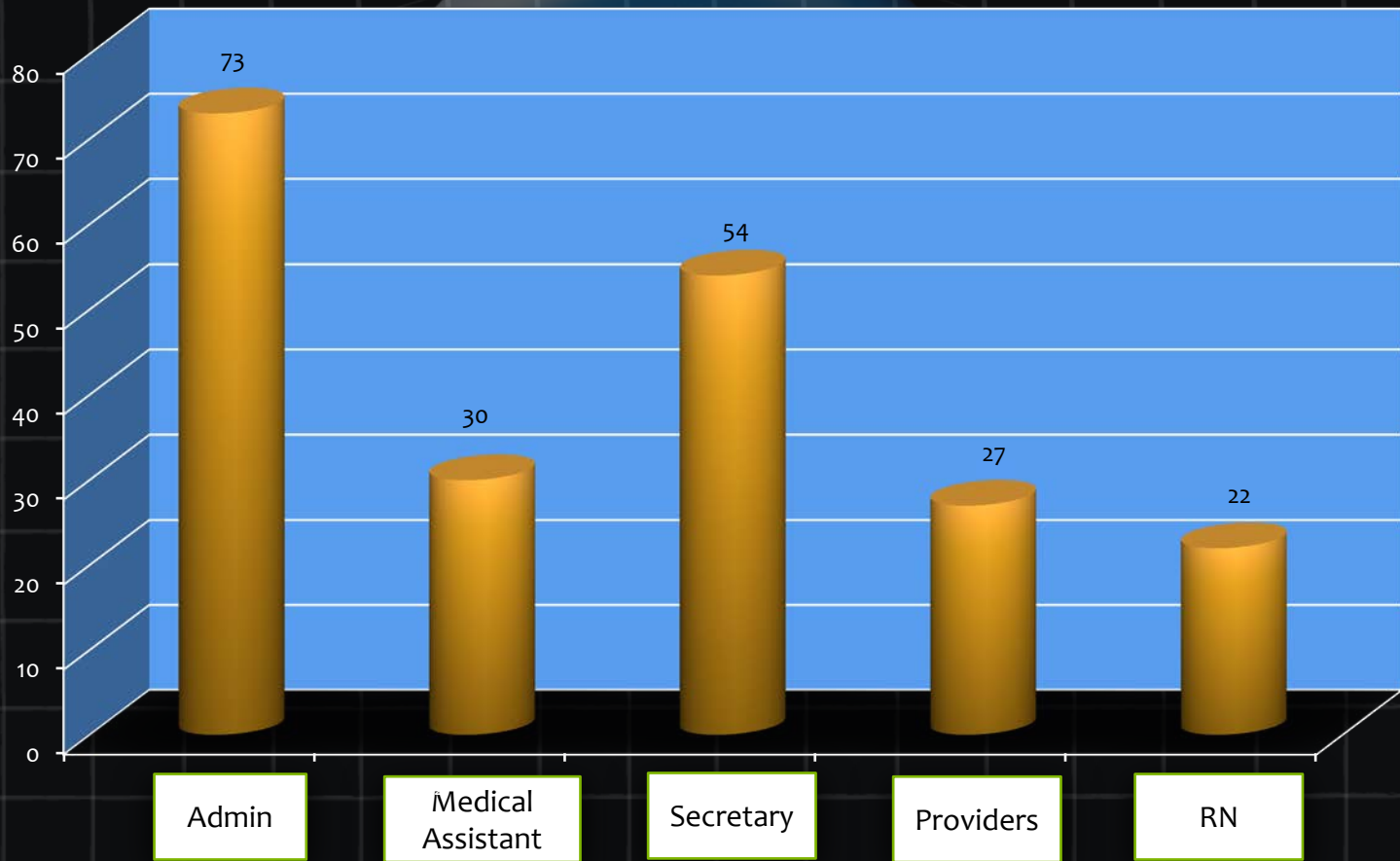
1. No recognition program

1. No incentive to participate

Results of the “Model Line”

All Lean Project Tracker for Gynecology Oncology Clinic 2012								
Item #	Complete	Team Leader/Team Members	Name of Process Improvement	Rapid Yes/No	A3 Yes/No	Metrics	Cost Savings	Status/Action Items
1		Dr. Munkarah, Toni, Donice, Natasha, Khalilah, Cynthia	Lean Time Change		No			Lean meeting need to be consistent and not changed the day of. If group cannot meet on a certain week then smaller meetings should take place. Lean is Top Priority. 1/11/2012
2		Ruan, Toni, Donice, Natasha, Khalilah	Lean Time Change		No			Working on a plan to communicate with each other to have smaller Lean meetings on Wed. and or Fridays with Toni or Ruan. Try to make 1 to 2 big meetings a month to ONLY discuss updates. 1/11/2012
3		Jennifer, Donice, Toni	Schedule		No			Look at schedule to work on start times and end times. Jennifer and Toni will meet to look at whole schedule to accommodate 1/11/2012
15		Jennifer, Toni, Beverlee, Donice	Sec. Orientation packets		No			Continuing from 2011...still on going
20		Dr. Buekers, Hanna, Jennifer, Toni, Donice, Beverlee	Patient History forms		No			Continuing from 2011...ordered color paper & received...made copies and sending forms out with consult packets. 1/11/2012
24		Jennifer, Toni, Beverlee, Donice	Parking Pass process improvement	Yes	No			Created a tracking chart for passing out valet parking passes to patients. Completed on 12/29/2011
28		Jennifer, Toni, Donice, Michele Aarons - Jackson	Schedule/ CSR at Lakeside		No			1/16/2012 a CSR will be provided at Lakeside (Donice will travel there on 1/16/2012) Starting 1/23/2012 Donice will stay at HFH for full day clinic.
44		Beverlee/Donice	Surgeries					Procedure forms not being filled out completely by the residents On-going 2/8/12
45		Beverlee/Donice	Wyandotte Clinics					Pts. Are not being updated in medipac/ co-pays are not being collected, Ongoing 2/8/12
46		Beverlee/Donice	H&P Forms					H&P forms not being returned to secretaries for data entry (updating) Ongoing 2/8/12
47		Beverlee/Donice	Surgeries					Not enough space to type surgical procedure on consents for surgery, Ongoing 2/8/12
48		Beverlee/Donice	Surgeries					Obtaining HFH folders surgical packets 2/8/12
49		Beverlee/Donice	Insurances					Receiving referrals from external physicians with patients who don't have insurance- Ongoing 2/8/12

Number of Process Improvements Per Position 2011-2012



> 200

Women's Health Services

Whiteboard to Communicate Across Shifts

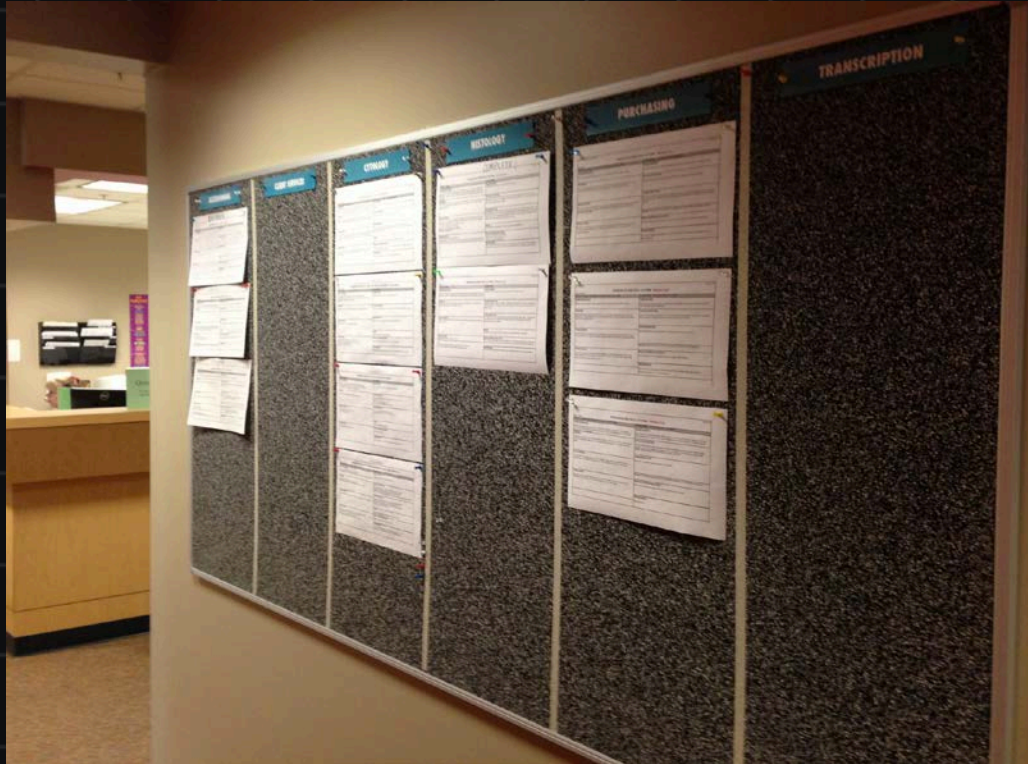
Before Lean : A very old Poster



After Lean: A Better Idea



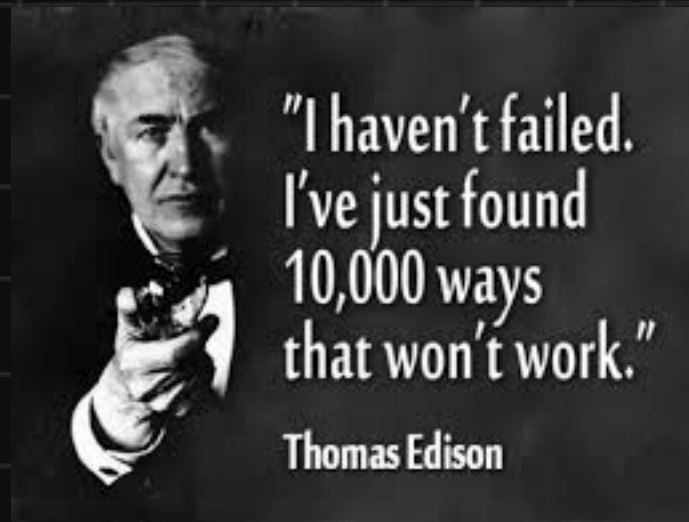
Posted Improvements



Standard approach
at all sites to
share employee
recognition

Incyte Diagnostics

Most successful characteristic



Take Home Messages



- 🌐 Leadership commitment is the key to organizational transformation
- 🌐 Develop an appropriate model for change based on organizational goals and objectives
- 🌐 Implement a model of continuous improvement and track results
- 🌐 Understand and avoid the do's, don't and pitfalls associated with implementation of Lean Management
- 🌐 Celebrate your success!

Questions?



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