# Improving and Sustaining Libraries using the Lean Philosophy

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# Introductions

- Laurie Stark, Staff Development and Lean Initiatives Coordinator

- Annelise Doll, Scholarly Communications and Repositories Librarian

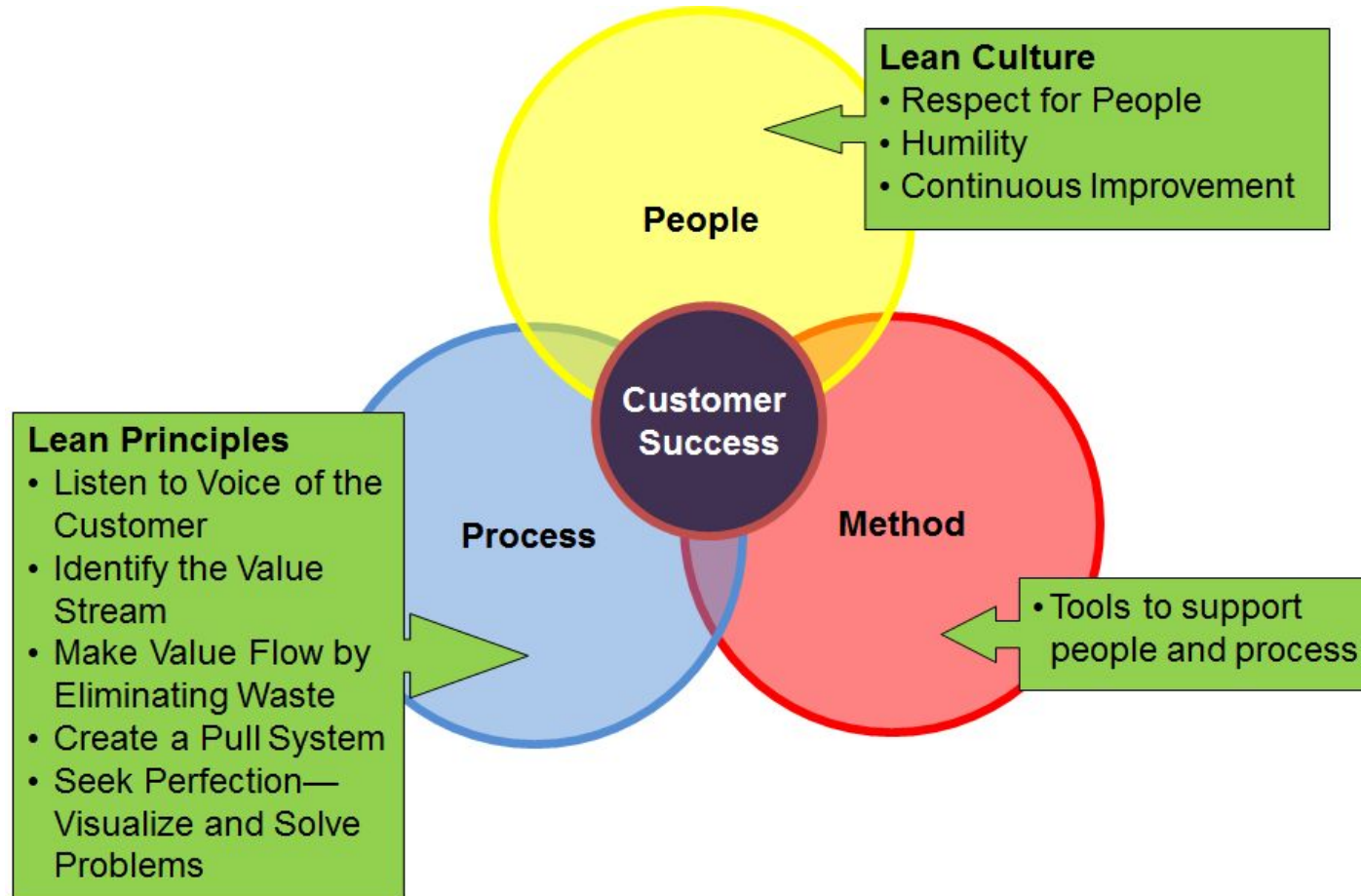- Lean Facilitators at Michigan Tech & lean practitioners for 3 years+

# Roadmap

- What is Lean?

- 3 Lean improvement projects
  - Workshop
  - Kaizen
  - Just Do It

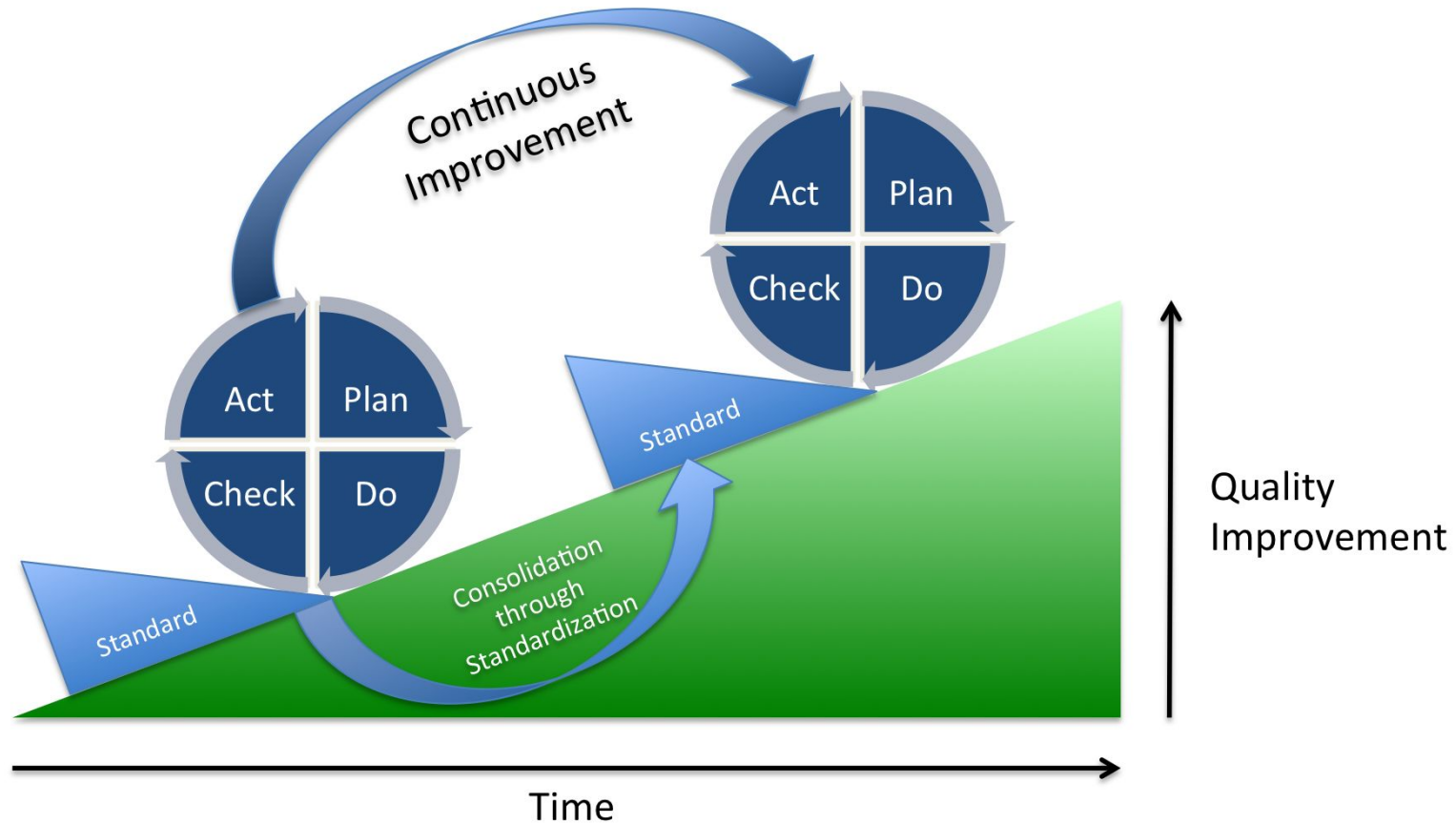- How can I get involved in Lean?

# What is Lean?

- Lean is a dynamic process of continuous improvement and learning by empowered associates, in a culture of mutual trust and respect, focused on eliminating waste and maximizing value for our customers. - Michigan Lean Consortium

- Lean creates an environment of continued improvement that will help develop sustainable projects and initiatives

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# Continuous Improvement Model



People

**Lean Culture**
- Respect for People
- Humility
- Continuous Improvement

Customer Success

Process

Method

**Lean Principles**
- Listen to Voice of the Customer
- Identify the Value Stream
- Make Value Flow by Eliminating Waste
- Create a Pull System
- Seek Perfection—Visualize and Solve Problems

- Tools to support people and process

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# PDCA

# What Lean Is Not

- Improvements made without involving those who do the work

- A "one size fits all" tool

- A method for eliminating jobs

- A one-time fix

- Assigning blame to individuals or departments

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- How can I get involved in Lean?

# Our First Library-wide Lean Endeavor

- Visual Management Workshop
- Process for library hosted events
  - Michigan Tech researchers and visiting authors

# Event Process Challenges

- Events often happened during busy times
- Events required coordination from many different functional areas of the library
  - 7+ people were involved in the process
- Only one person knew how to be a "host" and was retiring soon

# Visual Management Workshop

# Visual Management Solution

- Status at a glance
- Weekly huddles
- Four key players
- Standardized the process and created a checklist
- Sustainable process that now could be used by anyone with little to no training
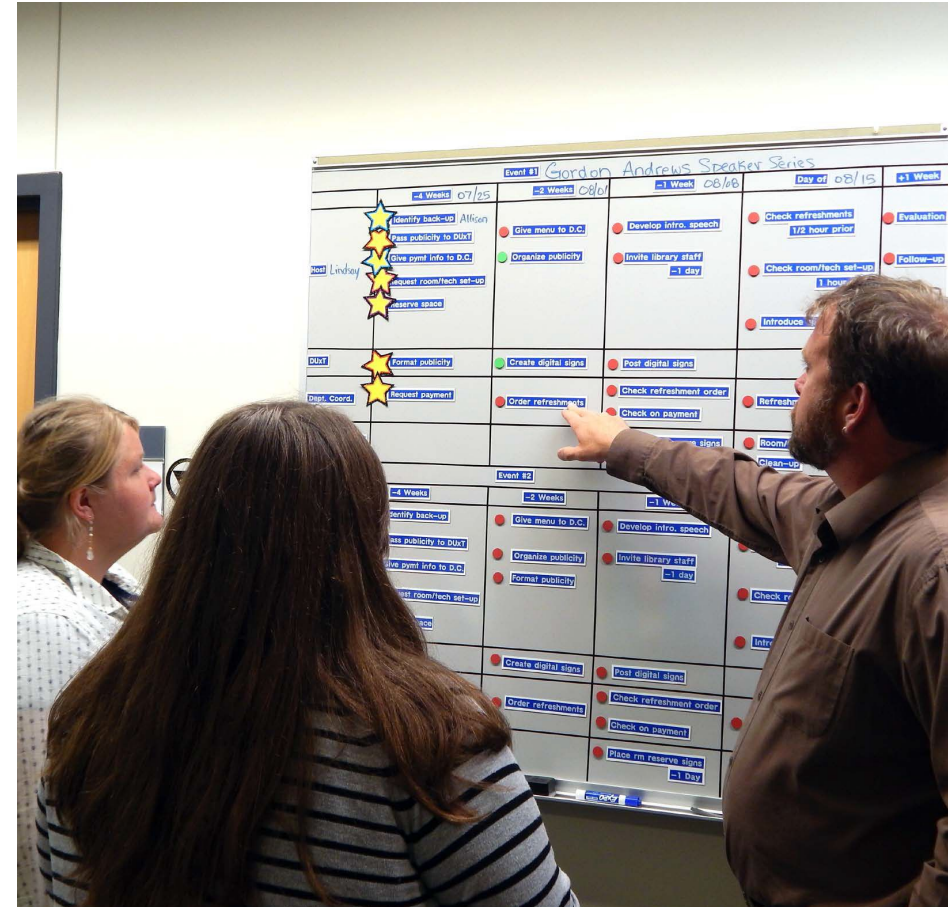
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# Digital Commons Kaizen

- How do we manage the process of populating an institutional repository with faculty works?
  - Acquire, process, and data entry for citations; copyright research, deposit files, and keep it organized!

- Kaizen (Kai=change, Zen=good) - Japanese business philosophy of continuous improvement

- Kaizen - Formal improvement event in which a cross functional group of people that come together to solve a problem or make a process better

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# Digital Commons Kaizen

- Team: Repository manager (me), Student assistant, Supervisor, Lean Facilitator, "Outside eyes", copyright librarian

- Discuss "current state" and identify problem areas <u>(blameless environment!)</u>

- Use Lean tools to brainstorm possible solutions

- Post-kaizen - Implement solutions

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# Digital Commons Kaizen
## Current State: Swim Lane Process Map
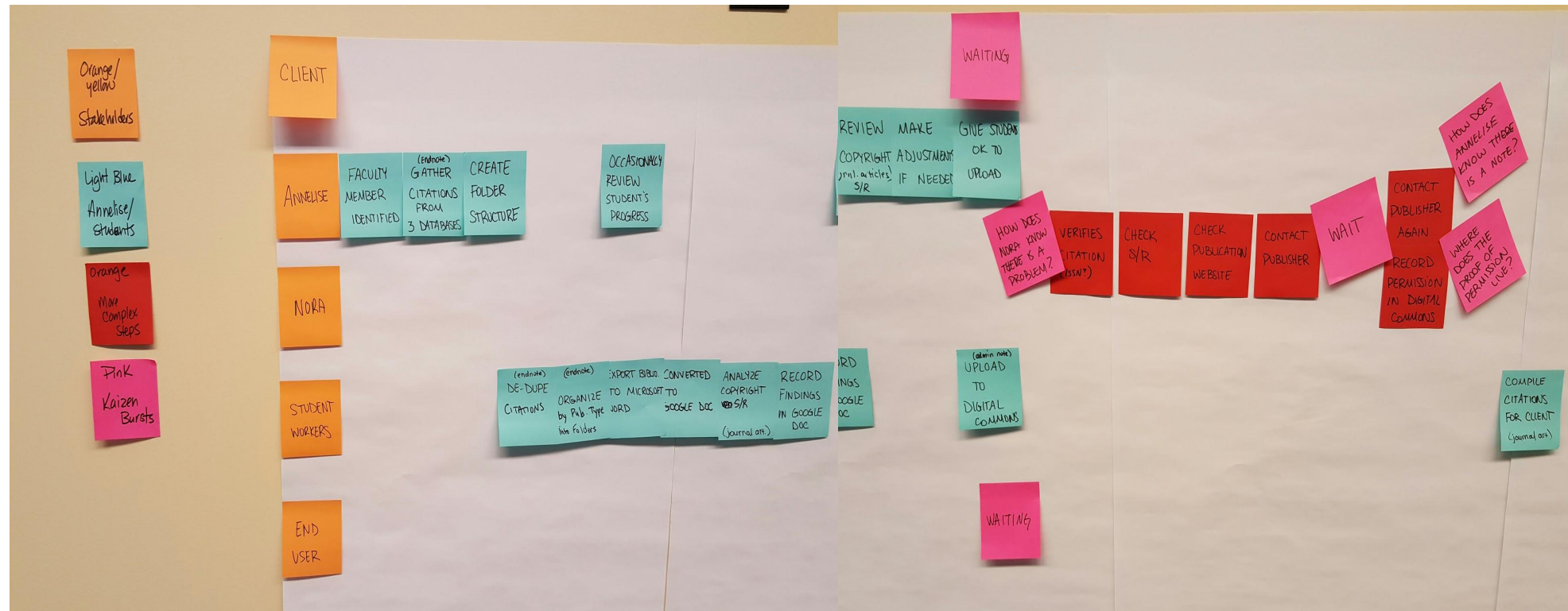
# Digital Commons Kaizen

### Choose potential solutions: PACE

# Digital Commons Kaizen

- Main takeaway: PDCA!

  - Some solutions were lasting, some weren't, but improvement doesn't have to happen all at once. It can be incremental as long as change is a sustained effort.

  - Kaizen format provided a launching point for continued improvement, without which the Faculty Publications project would not have been sustainable for our IR.

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# Just Do It! Communications Workflow Event

- Library communications projects
  - Includes all digital signs, posters, wayfinding, articles for university and local news sources, social media
  - Managed by our Communication and Technology Services (CATS) Team

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# Communication Projects - Challenges

- Many submission methods (email, in-person, Google group, etc)
- Hard to manage a large volume of projects
  - Deadlines were missed
  - Projects were forgotten
- Unable to tell if a project had appropriate approval
- Not enough documentation of projects
  - Errors
- Difficult to track projects to completion

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# Communication Projects - Improvement Event

- Root cause analysis using 5 Whys Tool

  - Why are we having so many challenges with communications?
    - Projects are not being completed on time or accurately
  - Why?
    - We forget that someone requested a project
  - Why?
    - There are too many methods for submission
  - Why?
    - There is no current procedure
  - Why?

# Communication Projects - Improvement Event

- Mapped out a future state using process mapping (swim lanes)
  - Became our new process for completion of communications projects
- Decided to use visual management to aid in the new process

# Communication Projects - Results

# Communication Projects - Results

- Single method of submission (online form)
- Increased communication with the requestor
  - Fewer project revisions and less errors
- Added an approval hierarchy to projects
- Project level loading between members of the technology team throughout the year
- Envelope allowed for consistency and sustainability from year to year

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# Sustainability through PDCA
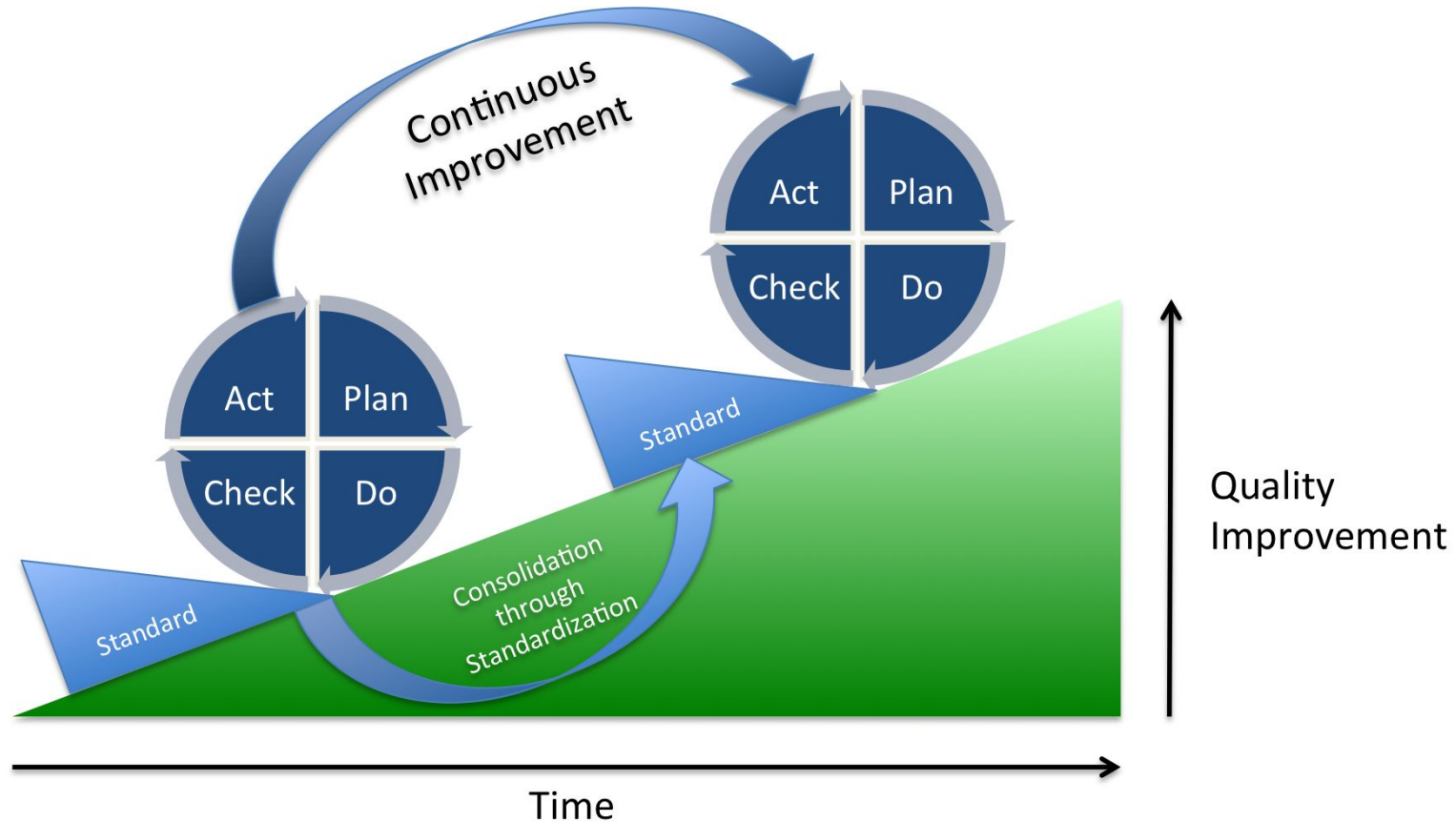
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# Getting Started

- Michigan Lean Consortium

- Gemba Academy

- Books
  - _Getting the Right Things Done_ by Pascal Dennis
  - _Everything I Learned about Lean I Learned in the First Grade_ by Robert Martichenko
  - _Lean Production Simplified_ by Pascal Dennis

- Lean.org
  - Blog

- Onsite visits to manufacturing, healthcare, and higher education establishments who practice lean

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# What questions do you have?
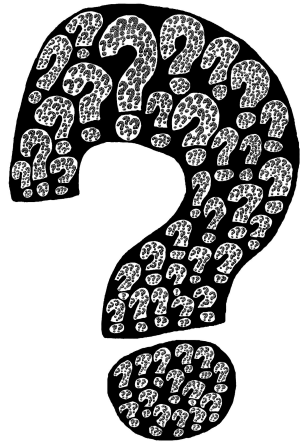
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