



A Partner for Lifelong Health

# Managing IT Projects Using Lean Six Sigma

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# Objectives

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- Understand IT Project Management and Lean Six Sigma integration
- Benefits
- Lessons learned



# Lawrence Memorial Hospital

## Background

LMH is a 173 bed hospital, founded in 1921. It is a community owned, not-for-profit hospital serving the health care needs of the community regardless of an individual's ability to pay. LMH invests all excess revenues in services, equipment and facilities. Dedicated to improving the health of our entire community, LMH partners with civic, business, and community organizations to inspire healthy living across Lawrence and surrounding areas.



A Partner for  
Lifelong Health



# LMH Recognition

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- Healthcare's Most Wired Hospital
- HIMSS Analytics Stage 6
- EHR Incentive Program
- Advanced Primary Stroke Center
- Accredited Chest Pain Center
- Joint Commission Certified



# LMH Services

## Hospital



Main Campus

- Medical
- Surgical
- Emergency (Level III)
- ICU
- Mother/Baby
- Pediatrics
- Skilled Nursing
- Acute Rehab
- Oncology
- Endoscopy
- Lab
- Imaging
- Pain Management
- Therapy Services



South Campus

- Imaging
- Lab
- Sleep Center
- Therapy Service
- Breast Center



West Campus

- Imaging
- Endoscopy
- Infusion

# LMH Services

## Ambulatory



### Family Practice

- Eudora
- Tonganoxie
- Lawrence
- McLouth
- Baldwin City



### Medical Specialties

- Cardiology
- Pulmonology
- Neurology
- Endocrinology
- Internal Medicine
- Oncology
- Wound Healing



### Surgical Specialties

- General Surgery
- OB/GYN
- Spine Care
- Plastics
- Vein Clinic
- Gastroenterology
- Urology



### Other

- Sports Performance
- Wellness Clinic
- Therapy Services

# IT Project Management



# What is a project?

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- A project is a temporary endeavor undertaken to produce a unique product, service, or result.



- **Temporary** – Definitive beginning and end
- **Unique** – New undertaking, unfamiliar ground



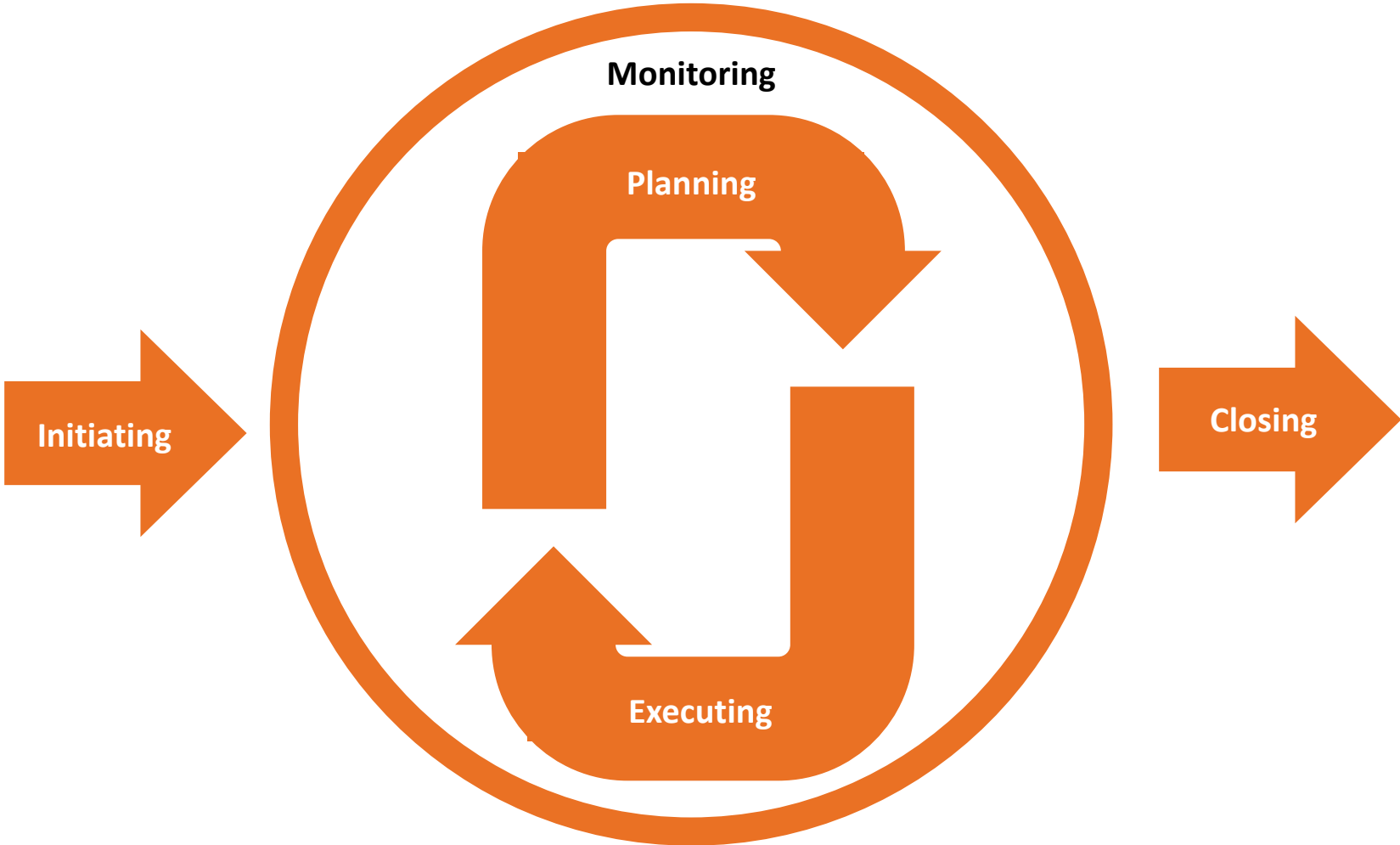
# IT Project Management

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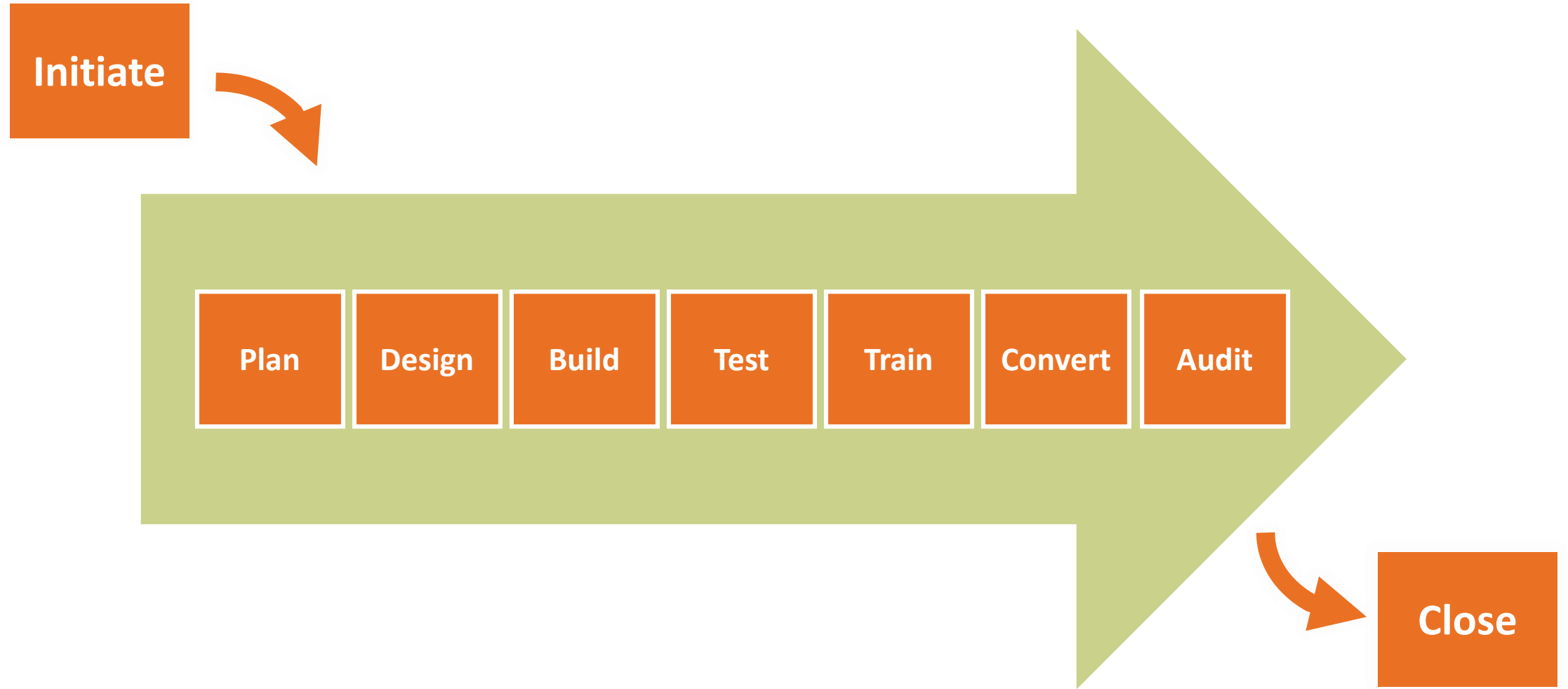
- Implementing technology to focus on a problem
- Use a project manager to manage tasks, timelines, scope and resources
- Follows a plan



# PMI Model



# Project Management Methodology



# Lean Six Sigma

Process focused approach  
to eliminate waste and variation  
resulting in consistent quality outcomes  
exceeding customer expectations.



# Quality



Automobile Industry

Plan  
Do  
Study/Check  
Act  
*Deming & Juran*

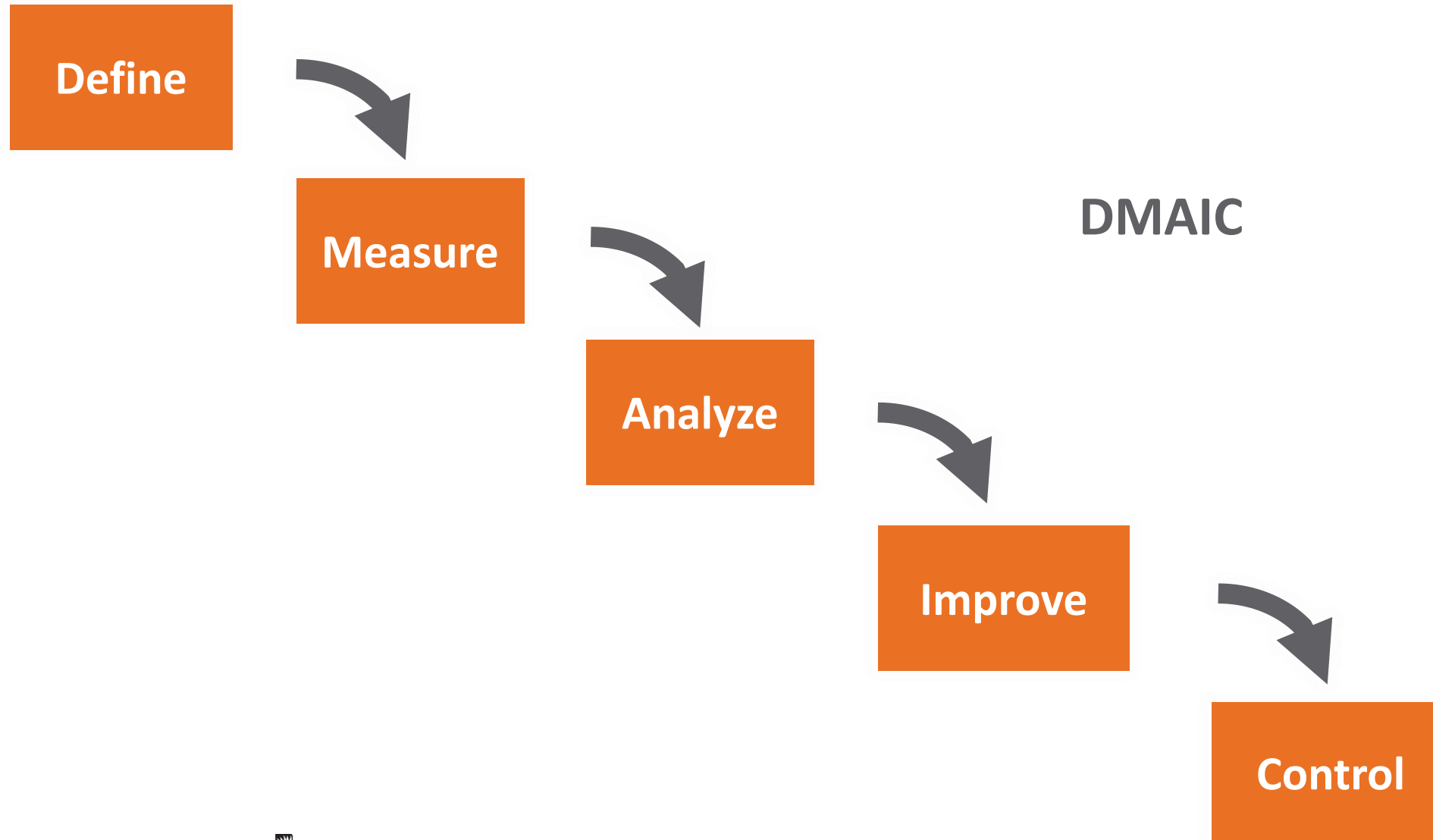


Manufacturing



# Lean Six Sigma

# Lean Six Sigma Methodology



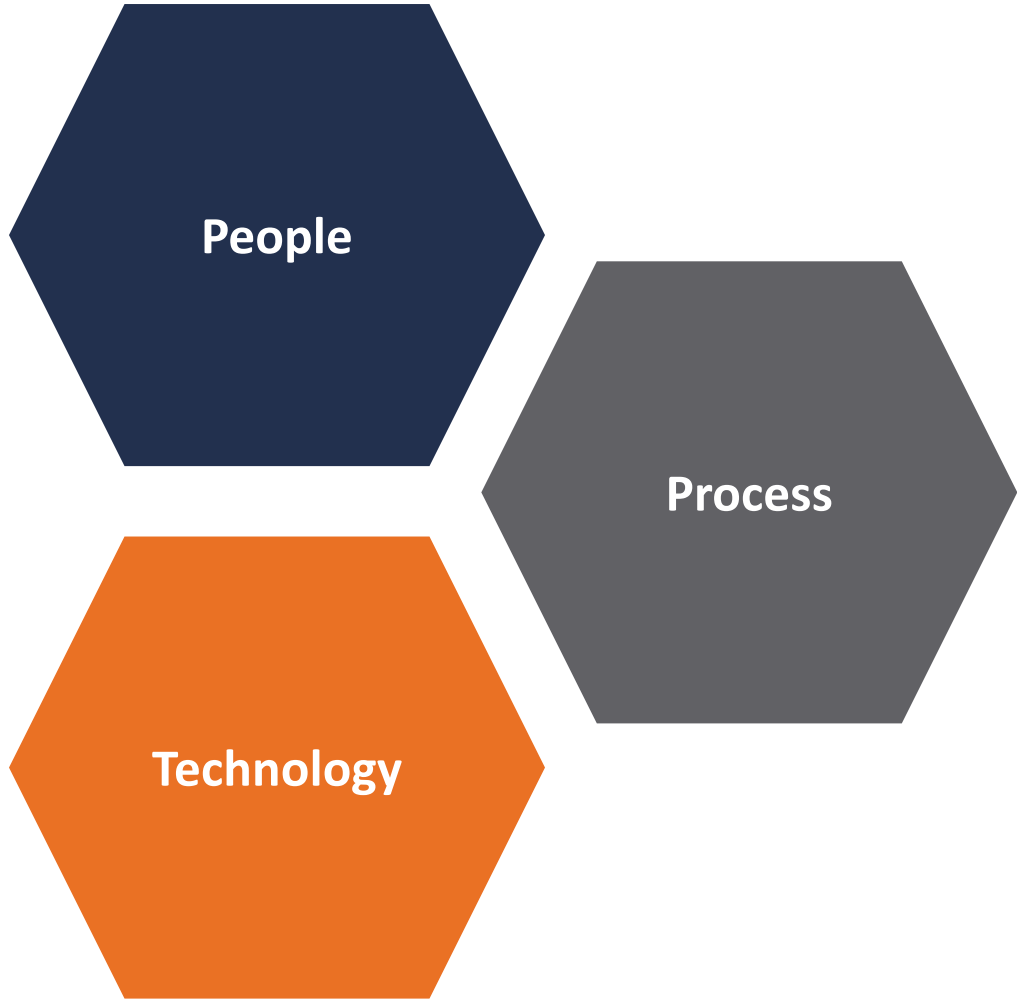
# Lean Six Sigma (LSS) at Lawrence Memorial Hospital

## Background

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- Consulting firm, Avior Group, engaged
- Operational Excellence Department
- Implementation Strategy
- Our Successes
  - Improved processes and communication between departments.
  - Empowered front line staff with tools to speak up and work on improving their daily workflow.
  - Saved the organization money through changing processes.





## Solutions

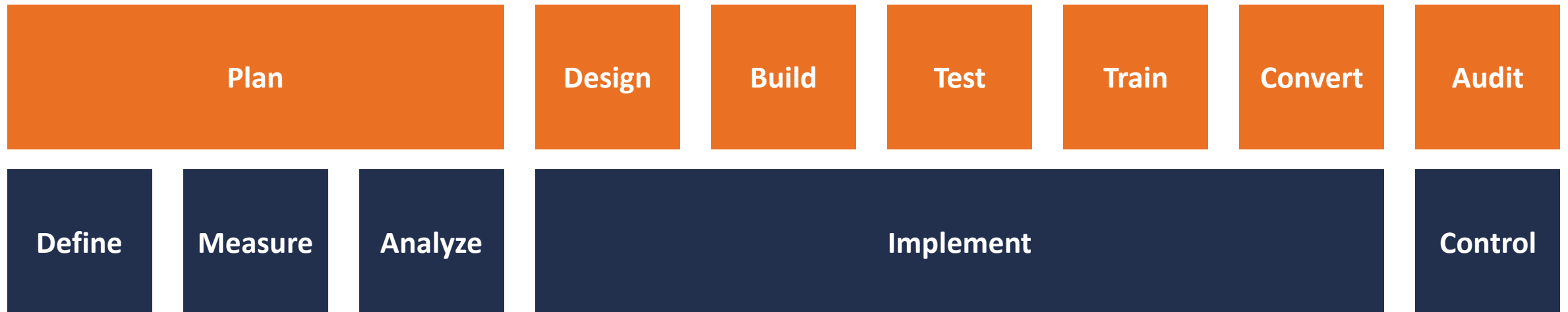
- LSS Focuses on Process and People
- IT Project Management Focuses on Technology and People
- Both are facilitating change in processes (workflow for people doing the work)
- Methodologies and tools are very similar
- Clear leader is defined (Project Manager or Black Belt)
- Organizational authorization and support are required
- There is always a risk of scope creep





# Integration Model

## Project Management



## Lean Six Sigma



# IT Project Management (PM) and Lean Six Sigma (LSS)

## Differences

### IT Projects

Short-term with focus on implementing a new solution/solving a problem.

Have a solution in mind

Incorporate vendor software functionality.

Have a prescribed schedule that includes building, testing, and training.

### LSS Projects

Continuous improvement process.

Have a problem in mind. Use data to determine root cause and develop the solution.

Spotlights variation and inefficiencies in how the work is done.

Look for opportunities for more rapid changes and piloting solutions on a smaller scale.



# Lean Six Sigma Principles in Project Management Success

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- New IT Projects should be approved based on analyzing clear DATA.
- Every IT Project should:
  - Include understanding the current process.
  - Identify the process changes and new functionality.
  - Train starting with the process and incorporating changes in functionality.
- Control Plans are essential for any change
  - One metric to define success.
  - A clear plan for monitoring and escalation.
  - A clear process owner needs to be defined.



# Lean Six Sigma & Project Management

## Lessons Learned

1. IT needs to be involved in Lean Six Sigma project prioritization/approval.
2. It is amazing what can be resolved when people doing the work are involved and the problem is framed as a system/process issue rather than an individual/computer problem.
3. Don't wait for the perfect solution.
4. An IT project can be highly successful but fail miserably if the PROCESS is not understood and considered with technology changes.



# Questions?

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