



Lean Construction Institute
Transforming Design and Construction

From Vision to Value: Build Better With Lean

Friday, June 13, 2025

Today's Objectives



Provide a high-level understanding of Lean's impact on capital project outcomes.



Address common misconceptions about Lean Project Delivery

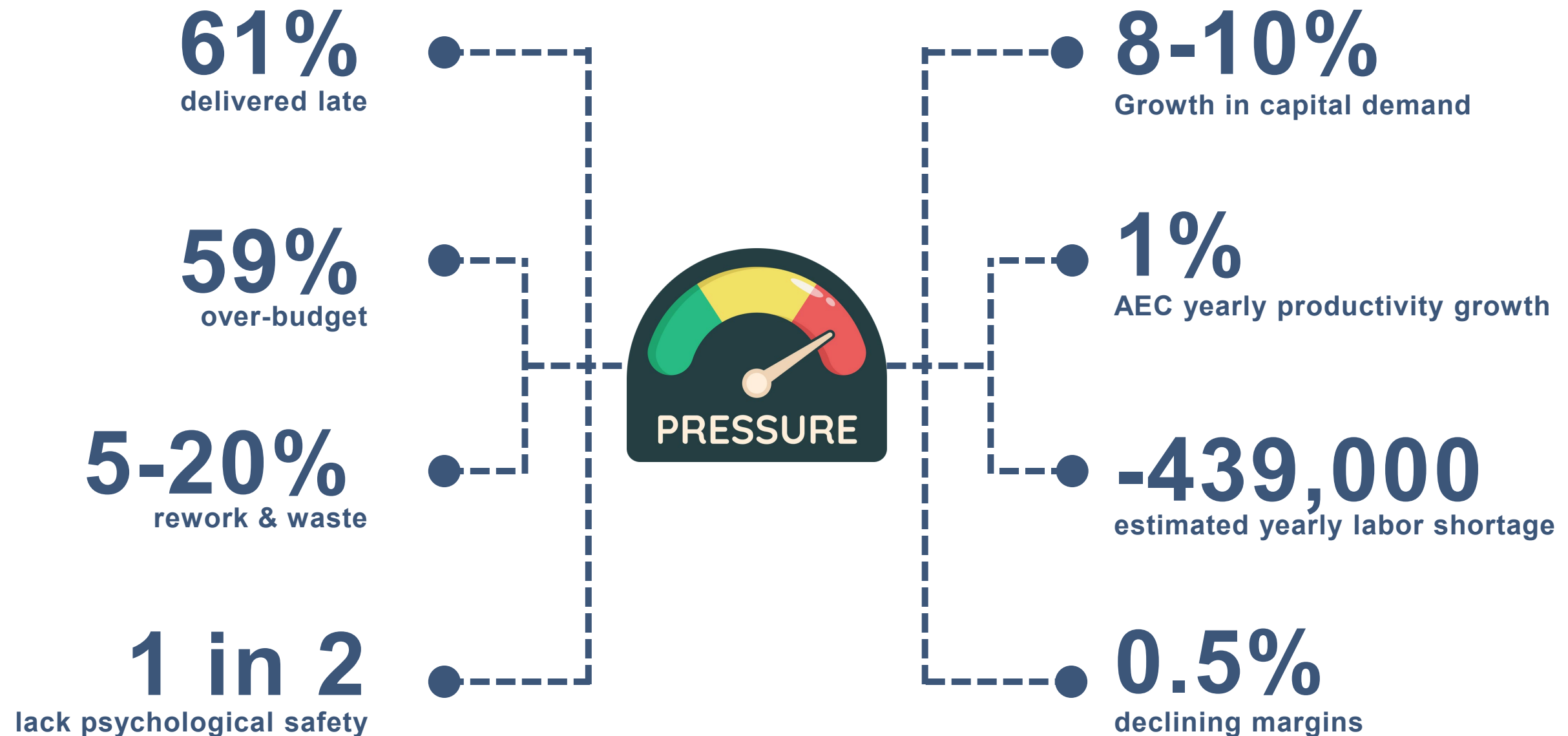


Provide proven approach to improving project outcomes by eliminating waste, enhancing collaboration, and maximizing value.

What is your biggest challenge with project delivery?

- a) Schedule Delays
- b) Budget Overruns
- c) Procurement Challenges
- d) Inefficient Processes
- e) Other

Capital Projects are Underperforming



Business As Usual, Is No Longer An Option

“If you pit a good performer against a bad system,
the system will win almost every time.”

– *W. Edwards Deming*

Definitions

Lean:

Culture of respect and continuous improvement aimed at creating more value for the customer while identifying and eliminating waste.



Definitions

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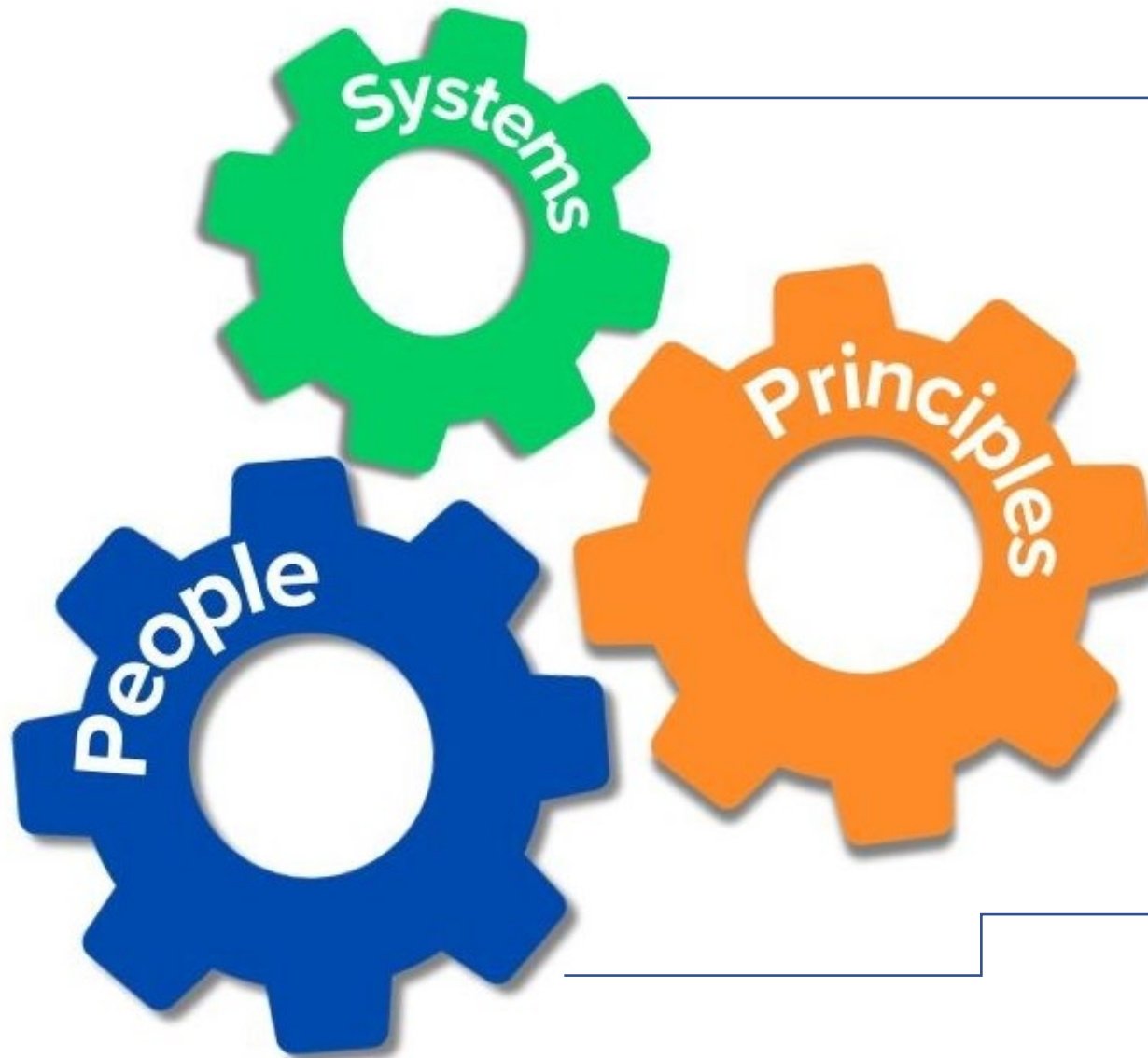
Culture of respect and continuous improvement aimed at creating more value for the customer while identifying and eliminating waste.

Lean Project Delivery:

An organized implementation of Lean Principles, Systems, & Tools combined to allow a team to operate in unison to create flow.



Lean Project Delivery



Systems: The **"how"** – the tools and processes that make Lean actionable.

Principles: The **"why"** – the foundational philosophy and values.

People: The **"who"** – the behaviors and collaboration that sustain Lean Culture.

Myth #1:
**Lean is not for owners; it's for the
boots on the ground.**

Predictability & Results

79%

finish on or ahead of schedule

50%

fewer RFIs & Change orders

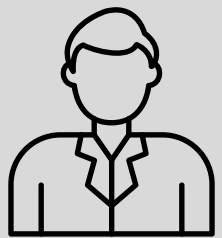
84%

are at or under budget

12%

productivity gain with psychological safe teams

Lean Project Delivery isn't just means and methods - it's how capital projects win.



Improved cost and schedule predictability.

Projects that meet your business case not just the demand.



Non-billable design churn reduction.

Early collaboration reduces decision making churn.



Safer more reliable projects.

Stabilized workflow, reduced delays and productive projects.

Real Owners. Real Results.

Texas Children's Hospital – North Austin Campus

2024 LCI Design Award Winner

\$485M 4 bldg. hospital delivered under budget and ahead of schedule—during a global pandemic.

- Completed in under 4 years from master planning through construction during COVID, delivery chain disruptions and inflation.
- Unified team with shared Conditions of Satisfaction.
- Early Lean onboarding-built trust and speed in decision-making.
- Delivered on time and under budget.



Ultium Cells Battery Manufacturing Facility

2023 LCI Engineering Design Award Winner

2.8M SF Lithium-Ion Battery facility delivered on a compressed timeline using daily Lean practices—1,500+ jobs created and 40GWh capacity enabled.

- Daily problem solving and Big Room enabled real-time pivots on schedule and cost.
- Utilized Target Value Delivery & Last Planner System® to hit milestones and reduce waste.
- Future proofed with standardized, scalable systems.
- Focused flow, culture and collaboration to reduce risk. CBA, A3's & 5S



Myth #2:
**Lean can only be done on an IPD
project.**

Integrated Project Delivery (IPD)



Integrated Project Delivery (IPD): is ***a team-based approach that integrates people, systems and practices into a unified process*** that optimizes results, reduces waste, and maximizes value throughout the project lifecycle

Core IPD behaviors (With or without an IFOA* triparty agreement)

- Early engagement of all key parties
- Shared risk and reward
- Collaborative decision making
- Open book accounting
- Commitment to Value delivery & Conditions of Satisfaction

You can do Lean Project Delivery on any delivery method!

*IFOA: Integrated Form of Agreement

Lean is Not a Contract

CM at Risk (CMAR)

Why it works well:

- Early partner engagement for constructability

Considerations:

- Collaboration starts to develop when the owner sets expectations.

Design Build (DB)

Why it works well:

- Integrated design & build from day 1

Considerations:

- Full Lean project delivery-Target Value delivery.

Engineering, Procurement, Construction Mgmt

Why it works well:

- Early trade input and flow-based design

Considerations:

- Lean Project Delivery may be owner managed and reinforced.

Lean success depends on leadership, culture & teams—not just the delivery model.

Myth #3:

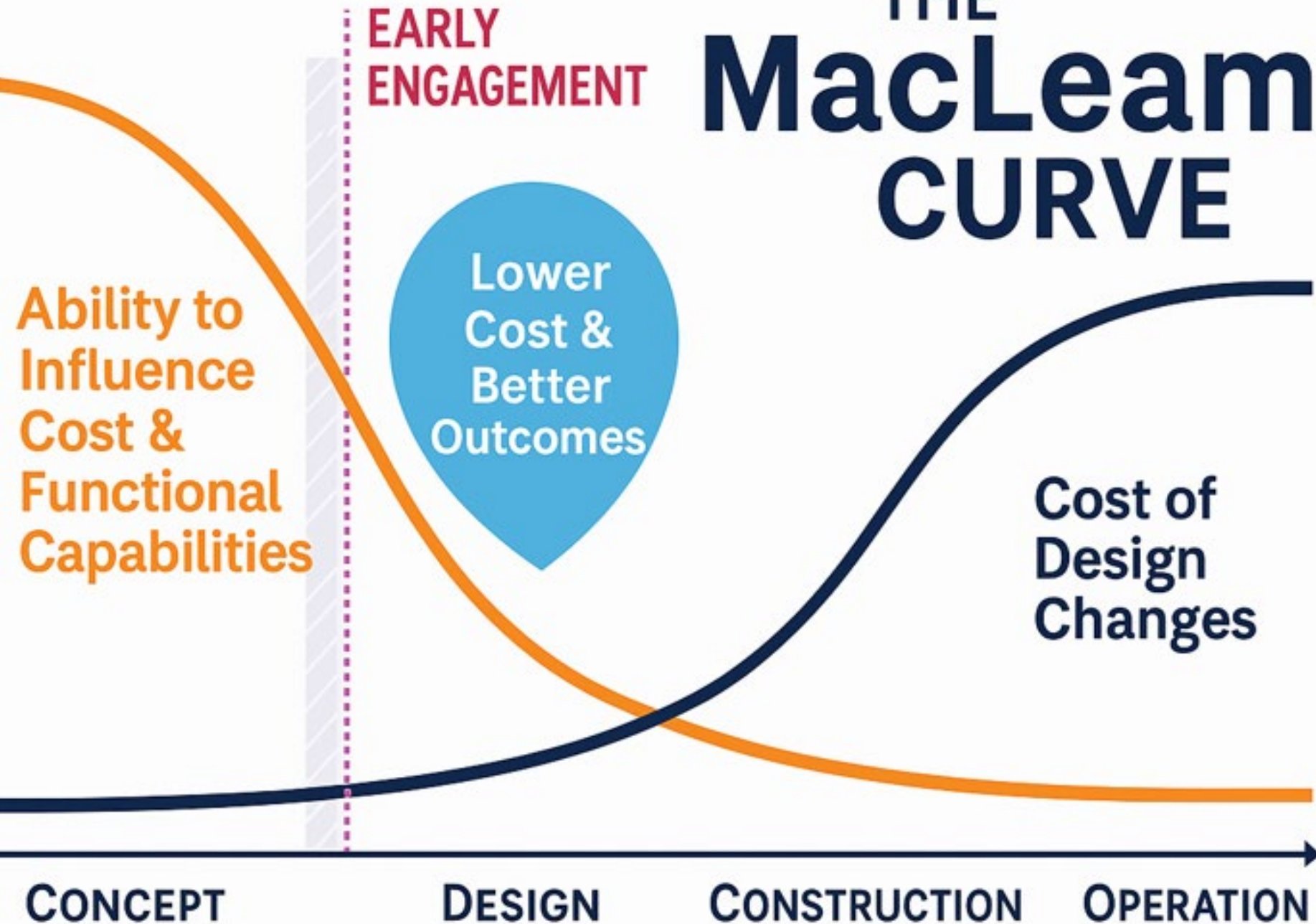
**My project will cost more to bring
key partners on earlier.**



Why it matters?

- **70%** of design decisions are made by end of SD.
- RFIs and change orders drive **5-15%** cost growth
- Design changes made in the field can cost **10-20x** more.
- **15-18% Improvement** in cost & Schedule performance

THE MacLeamy CURVE



Early Involvement = Early Collaboration

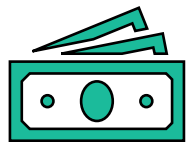
The earlier key partners are engaged, the greater opportunity to influence value, reduce risk, and align delivery.



Early GC
Involvement



Early Trade
Involvement



Avoid redesign & cost escalation

Design changes in construction cost 10-20x more than early-phase changes



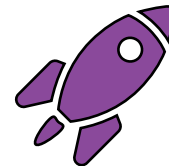
Maximize constructability and trade input

Fewer RFIs, fewer delays, and smoother field operations.



Improve team alignment and decision-making

Early CoS, Big Room, and shared risk mitigate rework and confusion.



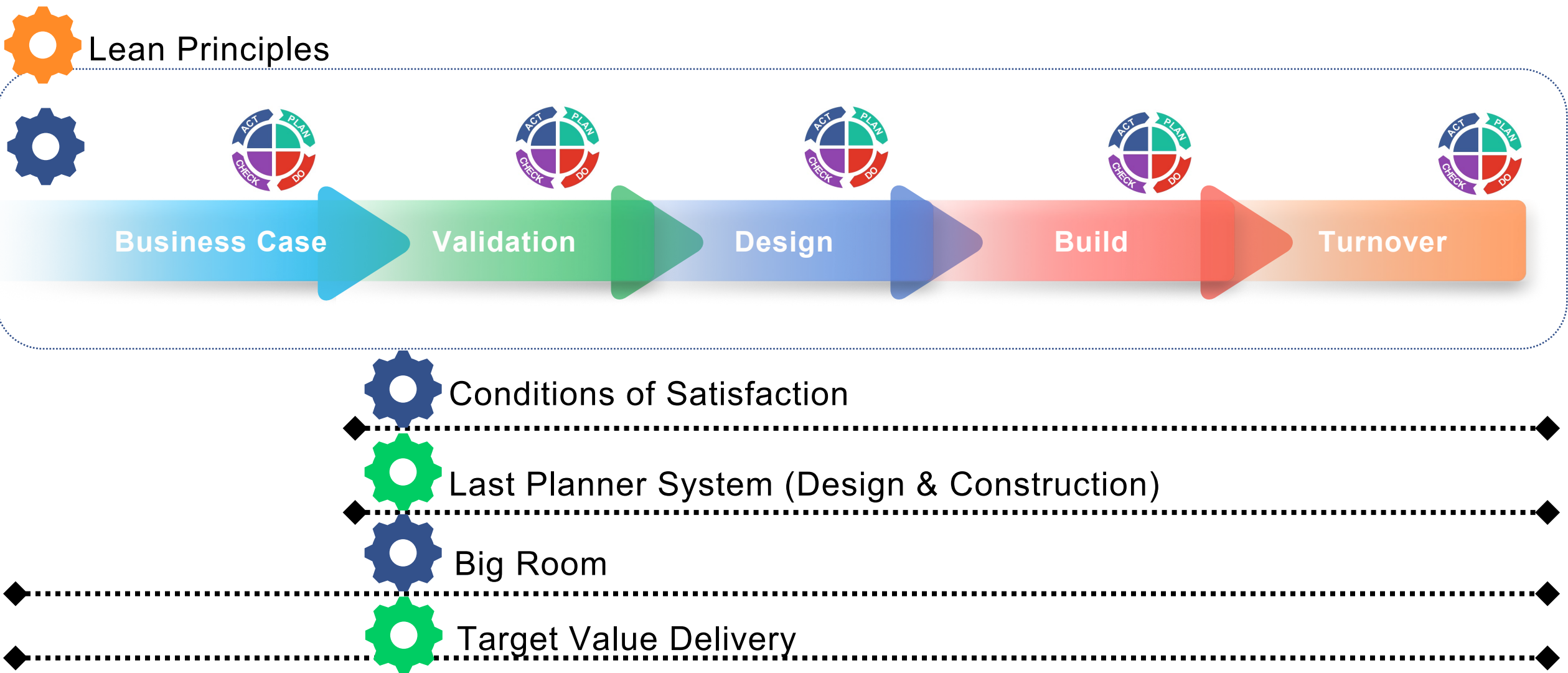
Accelerate schedule with better planning

Projects with early Lean engagement see 15-18% better cost & schedule performance.

Myth #4:
**Lean Project Delivery is just a set
of tools.**

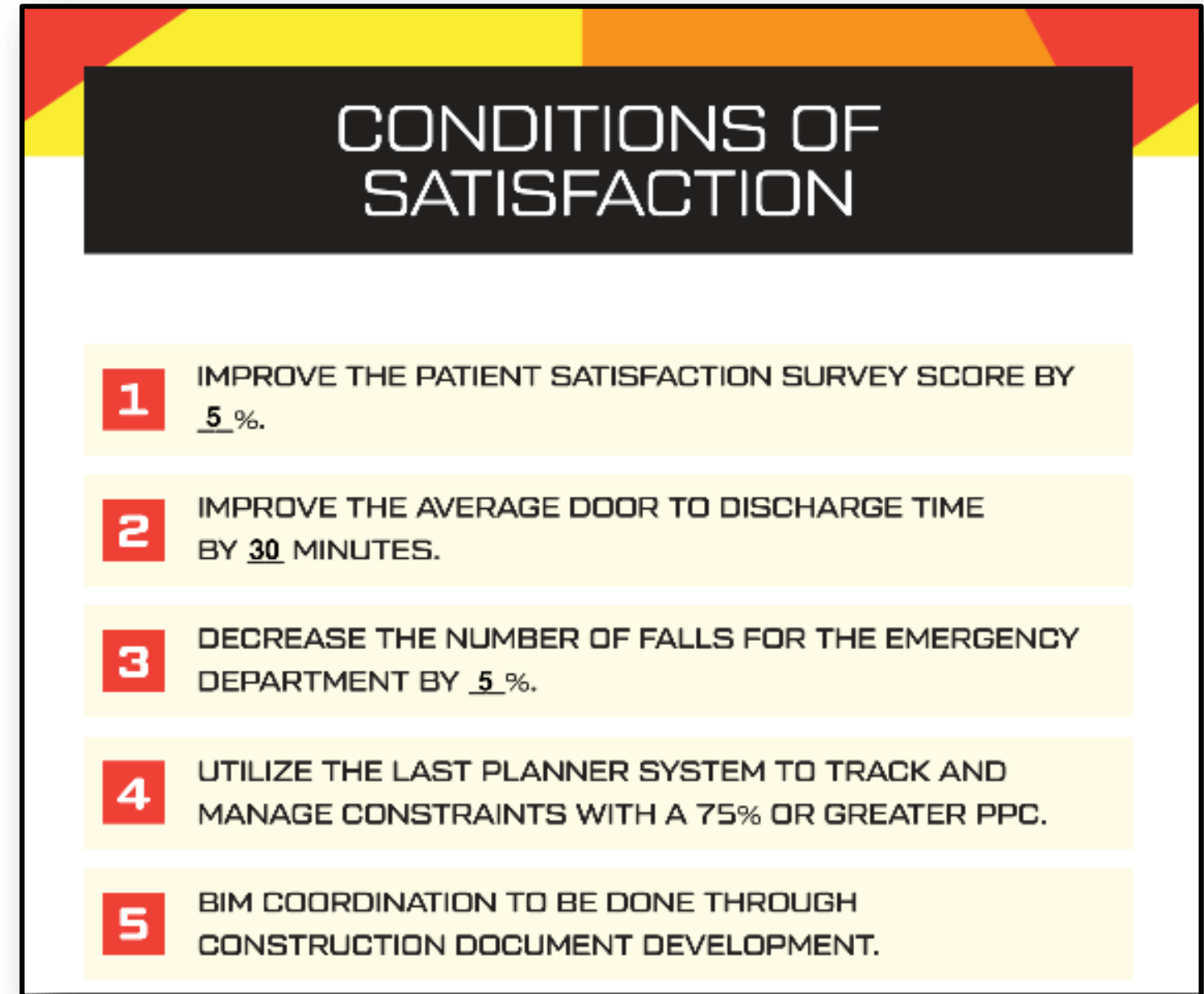


Lean Project Delivery



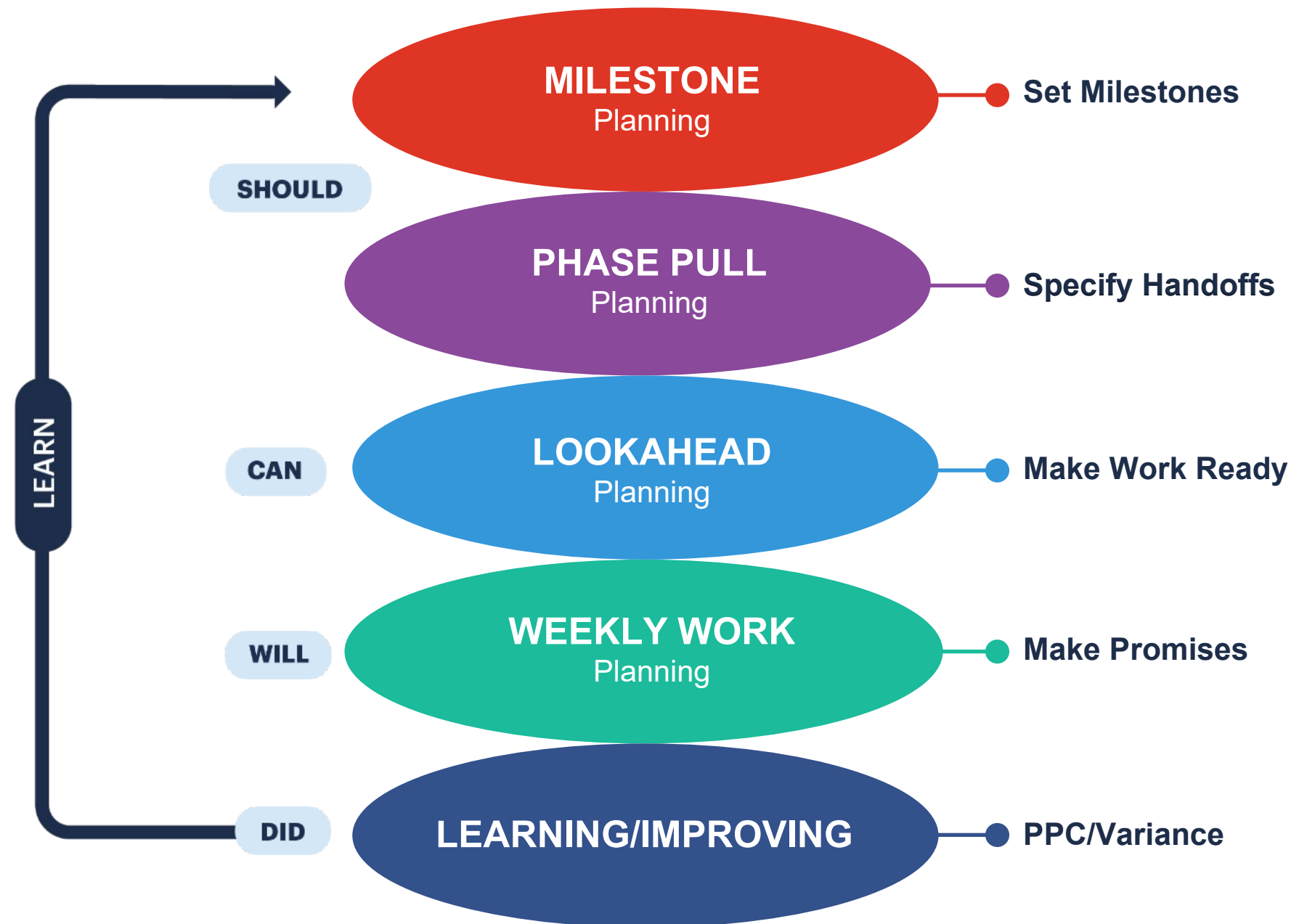
Conditions of Satisfaction (CoS):

- Part of language act of making a promise (Basic Action Workflow)
- Are developed by the team
- Measurable statements that inform a project team about which tests a project must pass to be accepted as a success
- Inform the decision-making process of the team



Last Planner System®

5 Connected Conversations



Big Room



Standard Meeting

- Siloed Agendas
- Updates & Report outs
- Top-down communication
- Delayed visibility to problems



Big Room/Obeya

- Shared purpose & priorities
- Real time problem solving & decision making
- Visual management & flow based- shared information.



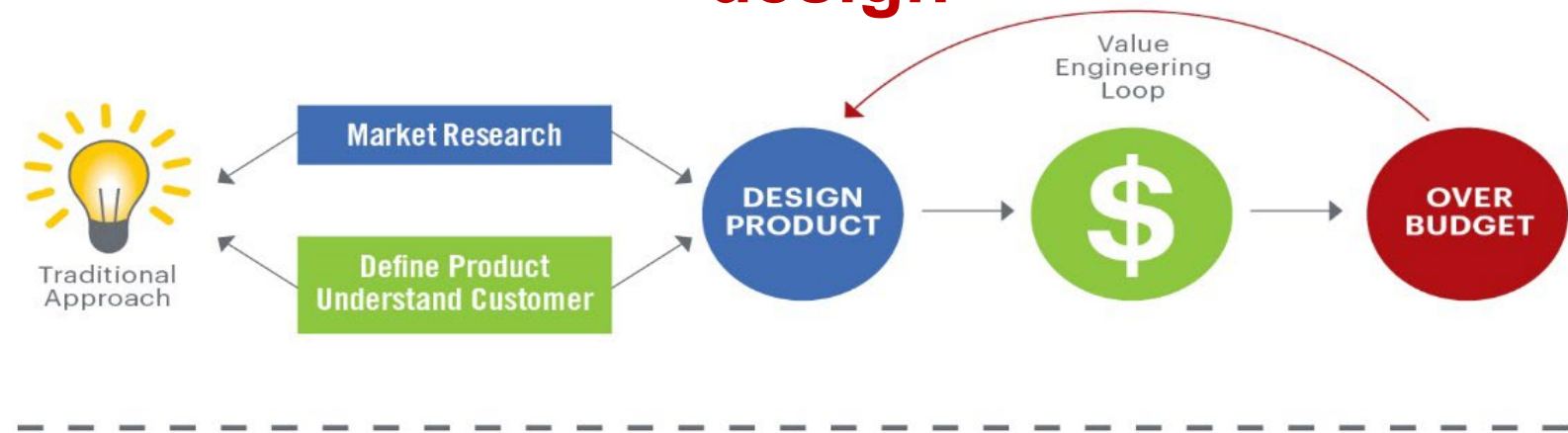
Key Mindsets of a Big Room?

- Systems thinking
- Trust & Psychological Safety
- Continuous learning
- Visual management
- Collaboration

Traditional vs. Target Value Delivery

The goal of TVD is to minimize the waste produced by the design, estimate and redesign cycle(s) of the traditional value engineering approach.

Cost is an *output* of design



Cost is an *input* of design



Plus/Delta



**What created value today?
What should we keep doing?**



**What did not create value?
What should we change or improve?**

- **After a meeting or shorter event**
- **Immediate feedback and action**
- **All voices included**

Retrospective



What worked well?



What didn't work well?



What will we do differently?

- **Structured event**
- **After a project phase**
- **Involves full delivery team**
- **Drives structured continuous improvement**

Whether short term or project based, reflection is only useful if it leads to action.

What's the biggest opportunity you see for Lean on your capital projects?

- a) Reducing change orders & rework
- b) Improving team alignment
- c) Increasing cost predictability
- d) Accelerating project delivery
- e) Other

LEAN = RESULTS

Projects Using Lean are:

- 3x more likely to stay on budget
- 2x more likely to finish on time
- See up to 50% fewer change orders and RFIs
- Delivery higher team engagement and less rework

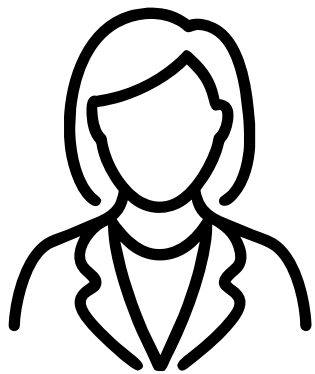
Access the most recent Dodge Network Research



LCI Certification

Certifying Lean Leaders. Elevating Project Results

Two pathways, One Purpose



“Certification ensures the people leading your projects know how to deliver predictable outcomes—not just talk about Lean.”

Why Certification Matters:

- Demonstrated skill applying Lean on projects
- Proven track record of driving results
- Sets a measurable standard for Lean Leadership across the industry.

The Impact of Certification

- Fewer change orders
- Higher team engagement
- Greater schedule & Cost reliability
- Less rework and increased alignment

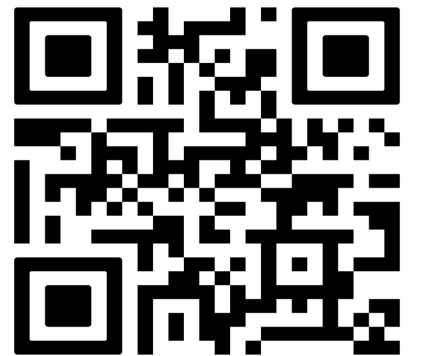
Access the most recent list of LCI-CPC & CPD certificants



TARGET VALUE DELIVERY IN ACTION:

*Hosted in a Virtual
Big Room Format*

**Sept. 5–Oct. 10, 2025
Fridays 1:00–3:00PM EST**



SAVE THE DATE

27TH
LCI CONGRESS

OCTOBER 20-24, 2025
ARLINGTON, TEXAS



Lean
Construction
Institute

Transforming Design and Construction

Upcoming Webinars



FREE: Supercharging Project Flow with AI & Lean Construction

Justin Johnson, Buildots; Sajjad Siraty, Ledcor;
Matt Davis, Pomerleau; Ed Hanzel, LF Driscoll;
Elizabeth Taylor, JE Dunn Construction

June 17, 2025
11:00 am - 12:30 pm ET

LCI Introduction to Last Planner System®

Christian Pikel, The ReAlignment Group

September 4, 2025
11:00 am – 12:30 pm ET

NEW: LCI The Basics of A3 Thinking **TBD**

September 12, 2025
11:00 am – 12:30 pm ET



Lean Construction Institute
Transforming Design and Construction

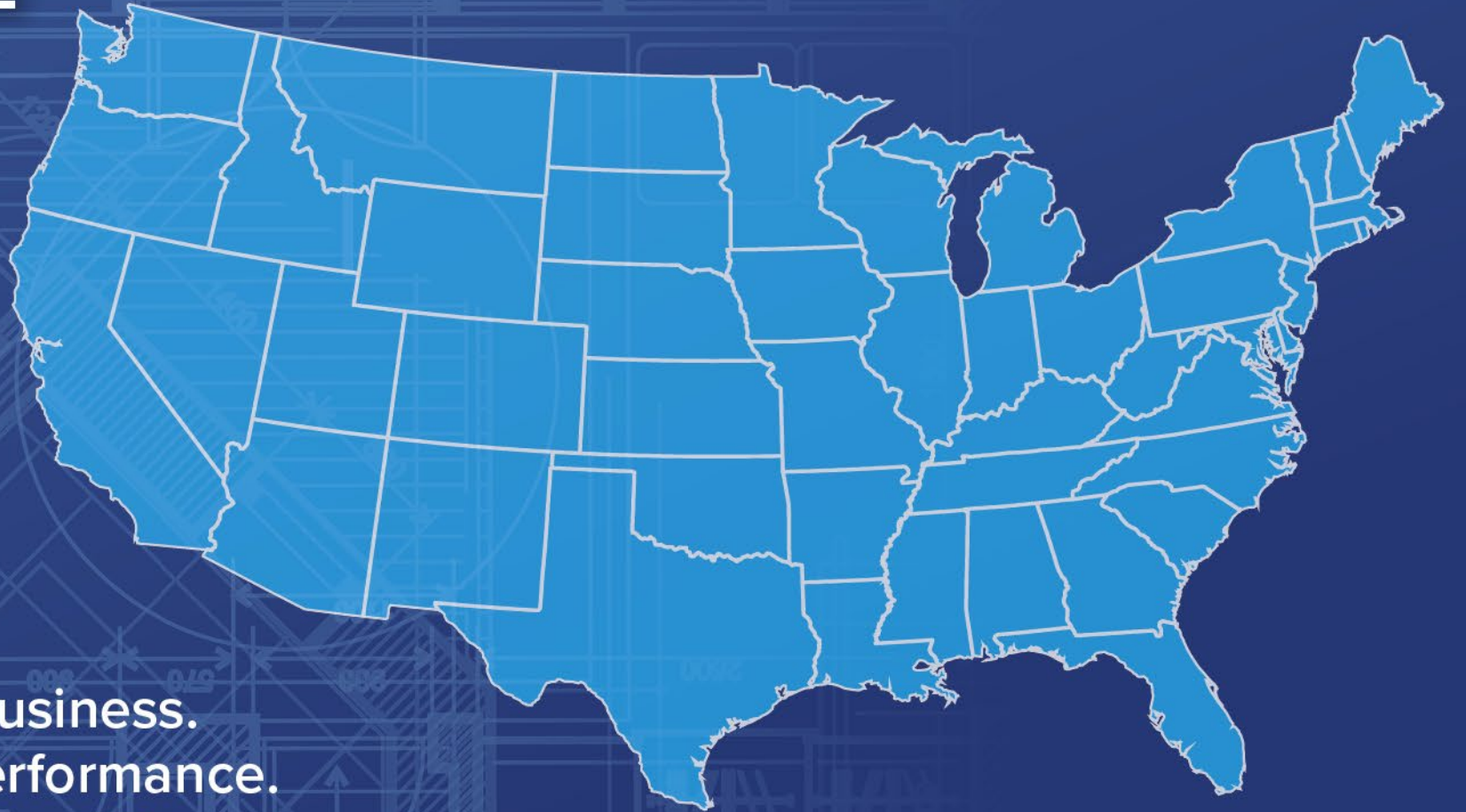
COMMUNITIES of PRACTICE

What are CoPs?

- Local hubs for Lean learning and collaboration.
- Attend project presentations, workshops, Gemba walks, and networking events.
- Connect with design and construction peers to drive project success.

What's in it for you?

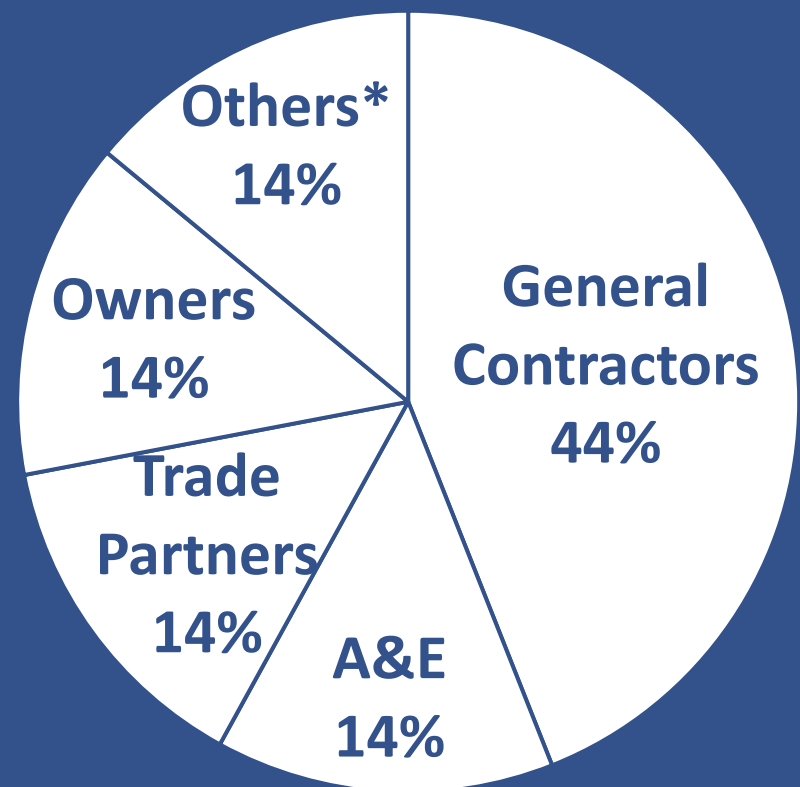
- Gain knowledge to bring Lean into your business.
- Reduce waste, add value, and improve performance.
- Join a growing national network of Lean practitioners.
- Gain knowledge to bring Lean into your project or business.



Find a CoP Near You & Get Involved Today!

Corporate Membership Demographic

292 CORPORATE MEMBERS

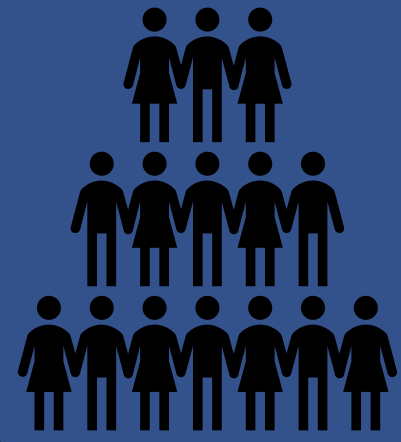


**Others – Consultants, Higher Ed, Professional Services, Vendors and Associations*

LEARN MORE



14,355 Corporate Employee Members



The Value of Corporate Membership



Education

Take your organization to the next level with premier Lean education resources.

Distinction

Stand out to clients and stay ahead of competitors with LCI recognition.

Support

Navigate change with confidence as a member of the LCI community.

UNLIMITED ACCESS FOR ALL COMPANY EMPLOYEES

Significant Savings on Congress Registration (\$700 / Registration)

Significant Savings on Certification (\$400 / Individual)

Educational Resources

Unlimited Access to eLearning (\$349 / Course per Person)

Lean Learning Series

Access to Past Congress & Design Forum Presentations (\$2,195 / Year)

Access to Past Webinar Recordings (\$2,850 / Year)

Unlimited Downloads of LCI Publications (\$25 / Per Download)

Transforming Design & Construction

TVD: Practitioner Guidebook

Don't Conform, Transform!

Lean Assessments

LCI Lean Deployment Planning Guide

Last Planner System® Standard Work and Workbook

Learning Center Micro Lessons

Application to be an LCI Instructor

Unlimited Downloads of Jobsite Posters (\$25 / Poster / Download)

First Year Member Complimentary One Registration to Congress Core Program (\$2,100)

Second Year and Beyond Member One Complimentary Group Webinar Registration (\$675)

Exclusive Member Only Events

Member Distinction – Use of LCI Logo and Member Directory Listing (\$2,500 / Listing)

Member Connections - 5 Questions, Project Highlights, Lean in Action & Company Recognition

LEARN MORE

LEARN MORE



Conduct Plus/Delta

 Plus: What produced *value* during the session?

 Delta: What could we *change to improve* the process or outcome?

LCI Lean Topics



Lean topics are core themes that explore how Lean principles—like optimizing the whole, removing waste, and respecting people—transform the way projects are designed, delivered, and led in the built environment. These topics provide actionable insights that help AEC professionals drive better outcomes, improve team alignment, and increase value at every stage of project delivery.

<https://leanconstruction.org/lean-topics/>

LCI Lean Glossary



The Lean Glossary offers clear, concise definitions of key terms and concepts used in Lean design and construction, grounded in real-world AEC application. It's a valuable resource for aligning teams, deepening understanding, and promoting consistent language across Lean project environments.

<https://leanconstruction.org/glossary/>