

ABC Webinar

Presented by John Wiegand



Lean Construction Success Webinar Series



THANK YOU FOR JOINING TODAY'S WEBCAST



POLLING QUESTIONS

- What is your current level of understanding of Lean for construction?
 - No exposure
 - Some
 - Well versed

POLLING QUESTIONS

● What is your role in the industry?

- General Contractor
- Designer
- Subcontractor
- Other

POLLING QUESTIONS

● What value do you see Lean providing to you personally?

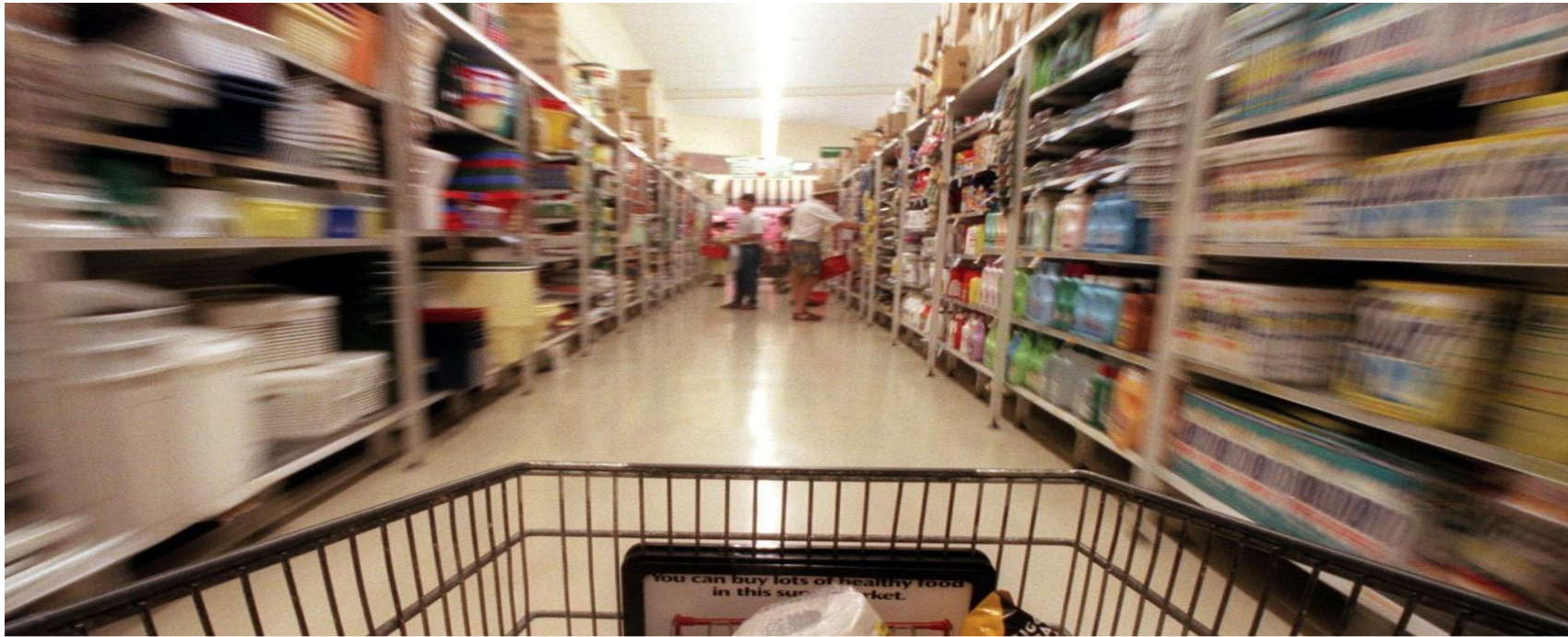
- Work more efficiently
- Improve project delivery
- Eliminate wasted motion
- Other (specify)

KEY SUCCESS FACTORS

- ✓ Preconstruction
- ✓ Change Management
- ✓ Safety
- ✓ Quality
- ✓ Schedule
- ✓ Close-out

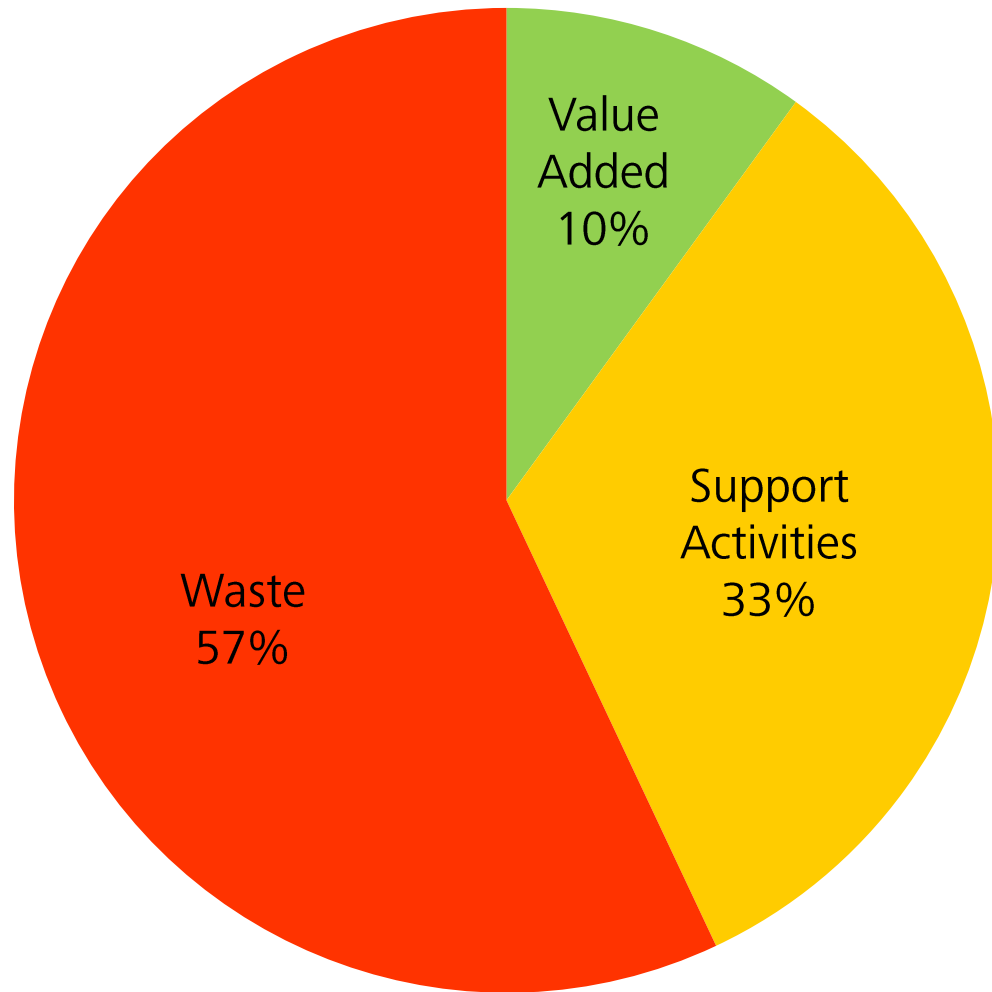
HISTORY...

- 1980 - Toyota Production System
- 1990's– Lean Construction was Established
- 1998 – Present –LPC (Lean Project Consulting), and Last Planner were established.

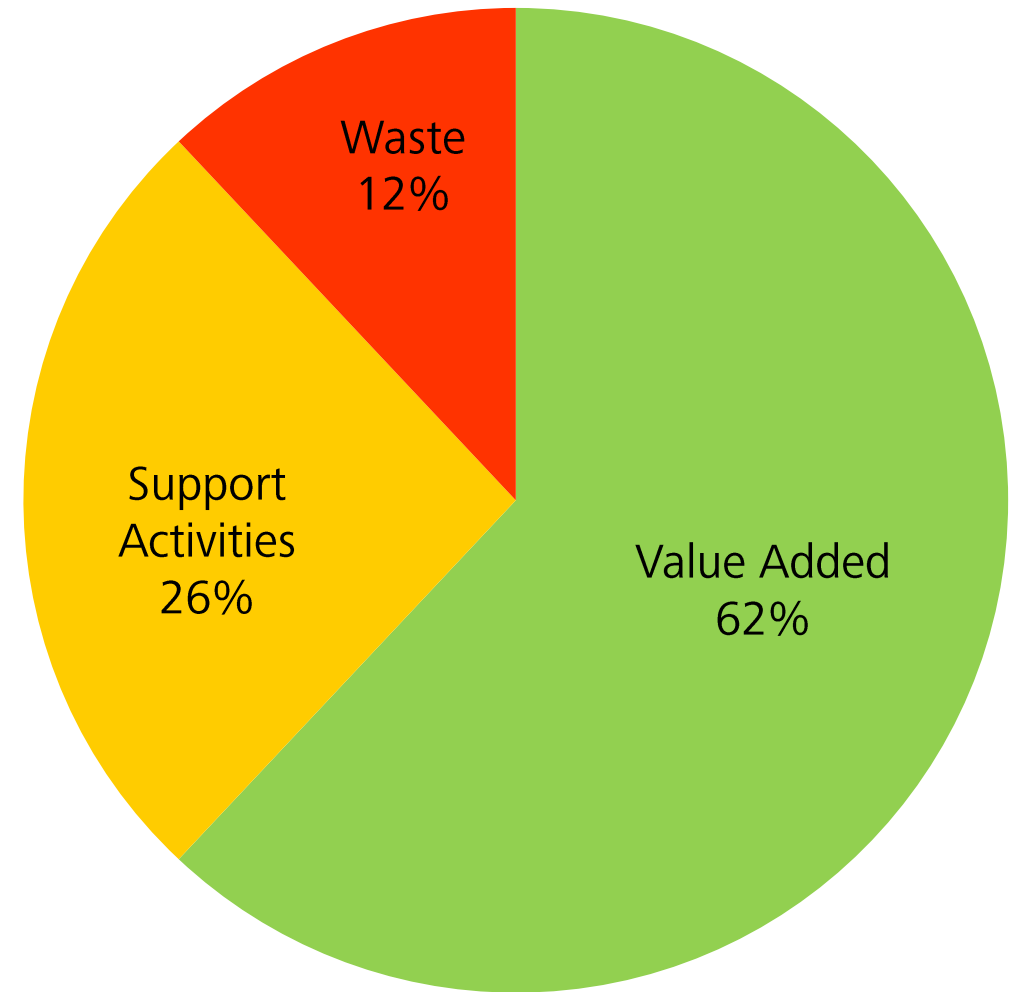


Produce and Stock
Only What's Needed by the Customer

Lean: Waste/Value in Construction vs. Manuf.



(Design &) Construction



Manufacturing

Source: US Bureau of Labor and Statistics

What Lean Is...

Through **continuous improvement**
and **respect for people**, delivering
ever-increasing **value** to customers
while eliminating **waste**

From: *This is Lean*...

Consider how a Lean Operations Strategy can improve an architectural and engineering practice...Deliver Lean Design:

"...a *creative* process to **prevent error**
and **invent value**."

This is Lean suggests that resolving sources of variation in the design process – inherently recursive and iterative – can deliver both required function (meeting the client's need) and aspirational form (meeting the architect's need) within the constraints of time and money.

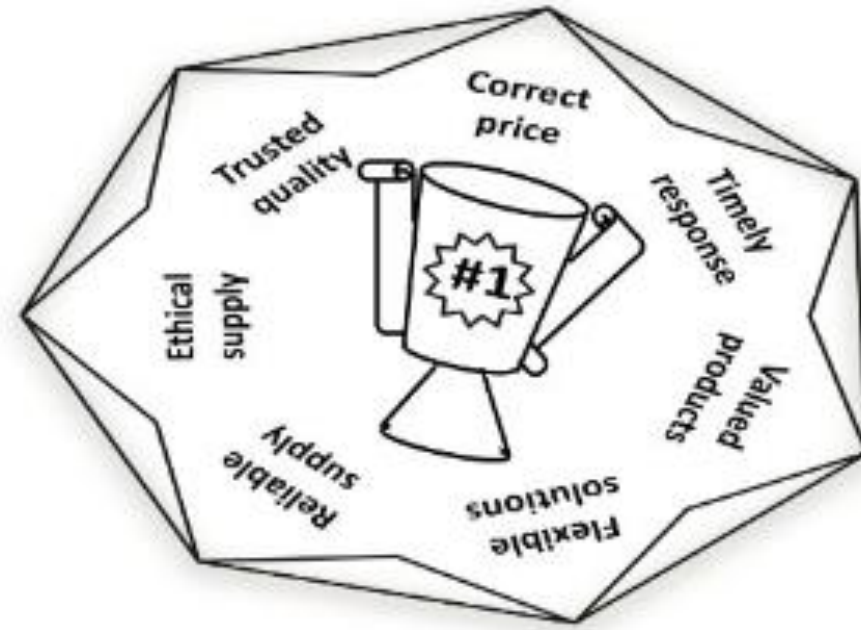
-An Architect's Interpretation, by Sam Spata, in *This is Lean*, (Nicholas Modig & Par Ahlstrom, 2015)

...or if you prefer...

Lean is nothing more than
**common sense,
rigorously applied.**

7 Values – Create Value for the Customer

- Correct price
- Timely response
- Valued products
- Flexible solutions
- Reliable supply
- Ethical supply
- Trusted quality



(“7 wastes.... what about 7 values?”,
from The Joy of Standards, ©James Sandfield, 2016)

What is a 'Lean' product?

Custom-designed,

Low batch size/inventory,

Material efficiency,

Designed at the point of innovation,

Manufactured at the point of desire

What is 'Lean' production?

Providing the **right** information,

And the **right** materials,

To the **right** person,

In the **right** place,

At the **right** time

What is 'Lean' demand?

Providing a customized product,
Made of the desired materials,
Delivered where the client wants it,
When they want it
At a price they are willing to pay

Variation in Production Systems

- Client decision-making
- Code compliance
- AHJ review
- Systems/Component information
- Manpower planning
- Value engineering
- Scope/Process differences
- Studio/Personnel differences

Lean Supply Chain and Assembly

- Develop decision/responsibility matrix – who decides what and when
- Plan decisions & dependencies
- Plan manpower according to workflow
- Provide appropriate expertise

BIG CHALLENGES!

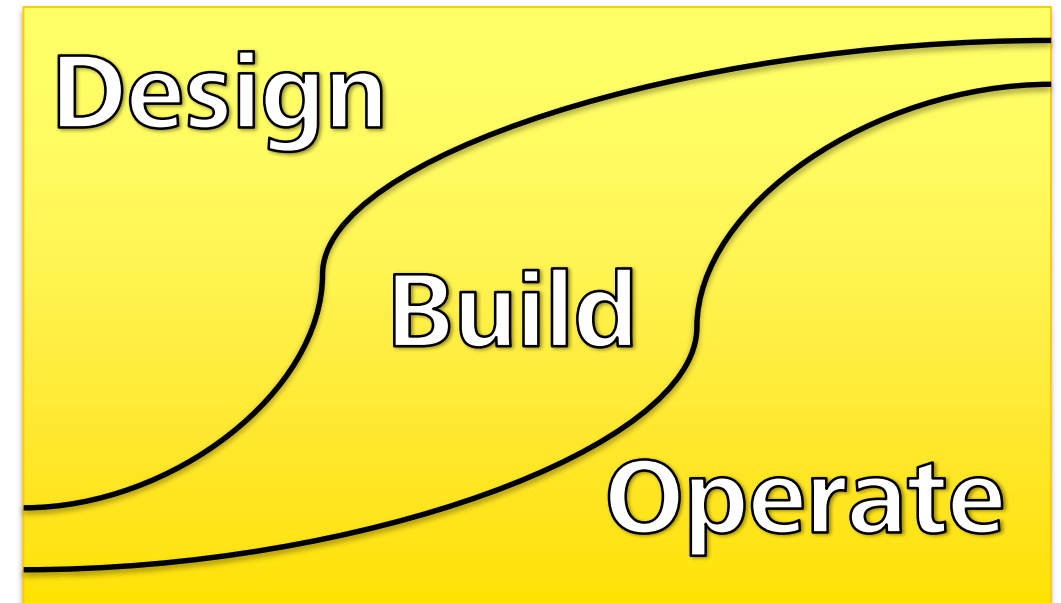
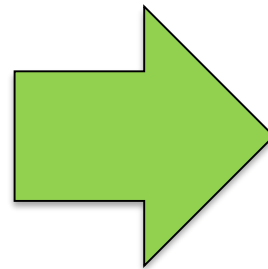
- Developing trust
- Inexperience in making commitments for planning
- Poor promising

Learn in Action
Continuous Improvement
Lead by Example

Lean and Data

Connect the silos

- Minimize handovers
- Get involved early, stay involved late



Strategic Planning

SHOULD

MASTER SCHEDULING

Managers ...

Set milestones

Identify long leads

Production Planning

SHOULD

PHASE SCHEDULING

CAN

LOOKAHEAD PLANNING

WILL

WEEKLY WORK
PLANNING

DID

DAILY CHECK-IN

Last Planners ...

Pull workflow and hand-offs

Builders plan crew flow

Identify and remove

constraints

Make reliable promises to
deliver next week's work

Measure PPC for previous day

Confirm today

Remove obstacles for
tomorrow

Levels of Detail in Work

Projects
consist of phases

Phases
consist of processes

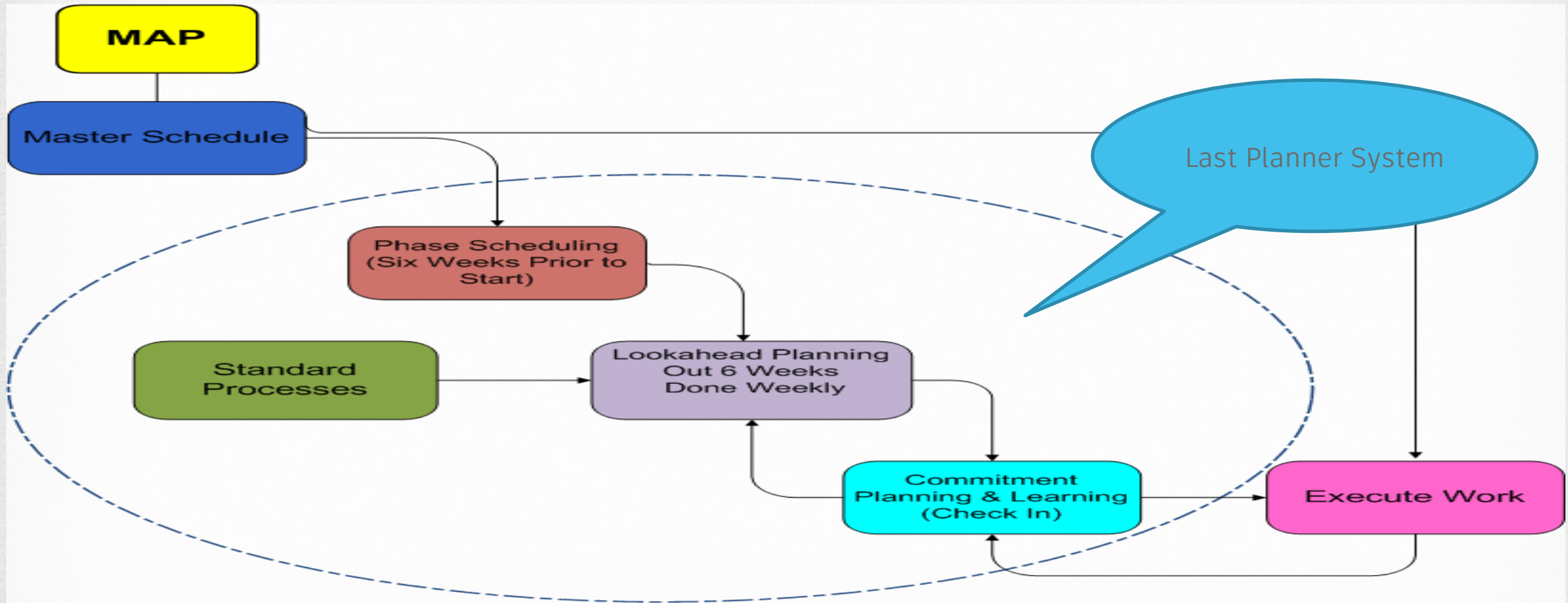
Processes
consist of operations

Operations
consist of steps

Steps
consist of motions

Motions
create the product

Last Planner System



CONTINUING THE DISCUSSION



DOWNLOAD the eBook:

Getting Started with Lean Construction

[GET THE GUIDE](#)