

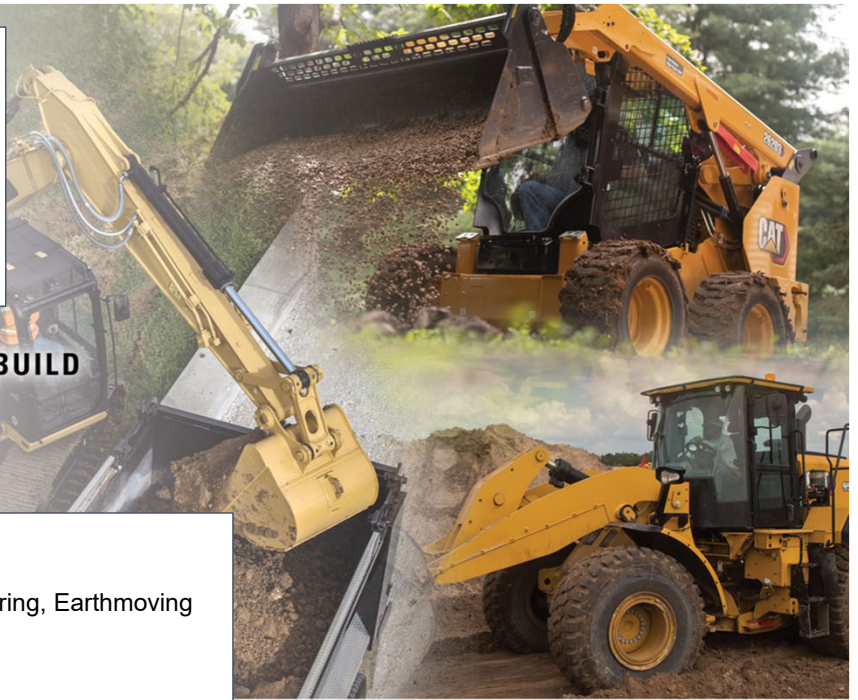
Lessons from a Career
Leading Lean Product
& Process Development

**HELPING OUR CUSTOMERS BUILD
WHAT THE WORLD NEEDS.**

Steve Shoemaker

Vice President - Engineering, Earthmoving
(retired)

Caterpillar, Inc.

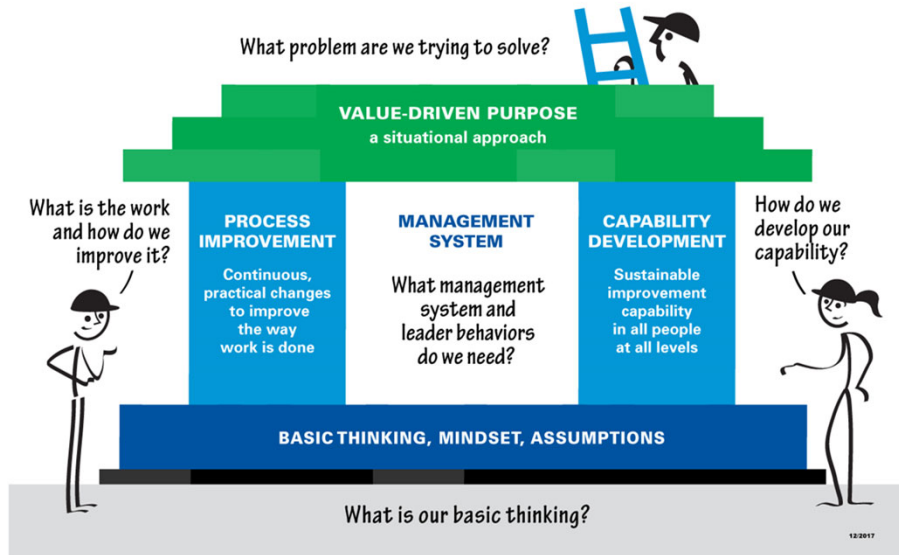


“Continuous Improvement
Beats Postponed Perfection”

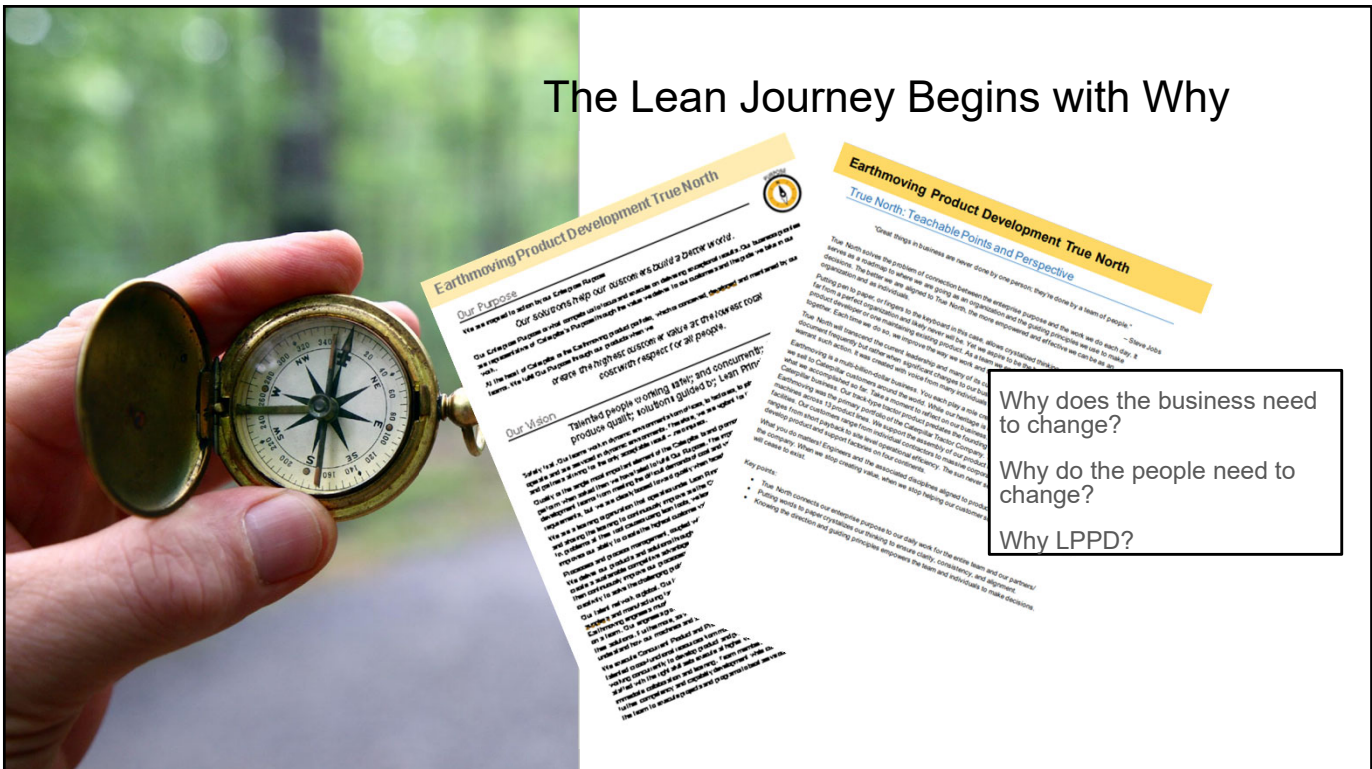
- Mark Twain



The LEI Lean Transformation Framework



The Lean Journey Begins with Why



Leadership Behaviors

Employ lean leadership principles to provide helpful help to our individual team members and supervisors.

Knowledge to know
the right things to do.

Time to do the
right things.

Leadership's willingness to
allocate the time to do the right
things the first time.

People: the lean leader¹

- Effectively collaborates cross-functionally across the organization and the supply chain.
- Encourages people to expose problems and stays with them to implement true solutions.
- Uses continuous coaching and dialogue to empower people to solve their own problems.
- Builds future lean managers and leaders.
- Supports organizational learning.



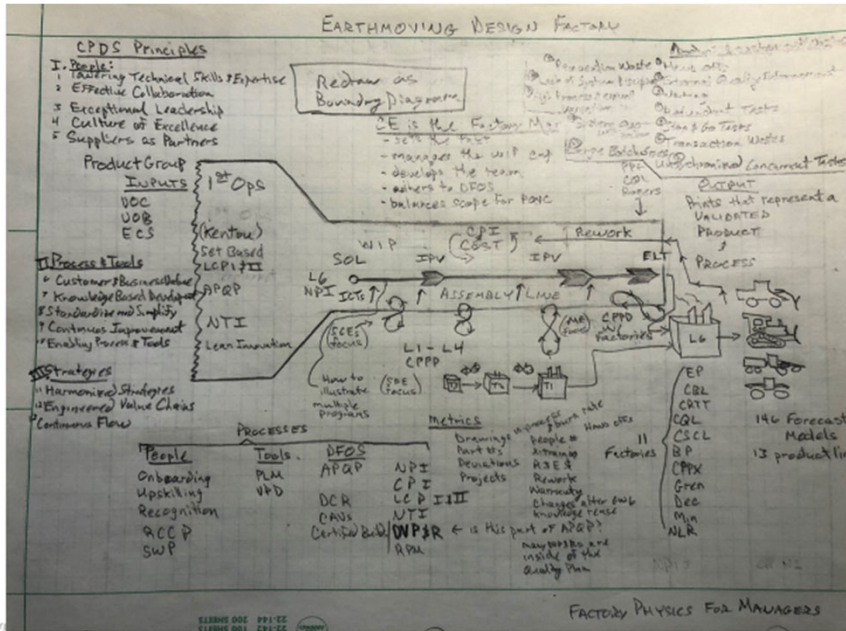
Note 1: reference PEOPLE; A leader's day-to-day guide to building, managing, and sustaining lean organizations. c. 2012.

“Make the Work Visible”

– Jim Morgan (every time I talk to him)



Steve Shoemaker – Formulating the Vision early 2021



2/1/21 Engineering Dept Mtg
visual management
established with. The
design factory . . .

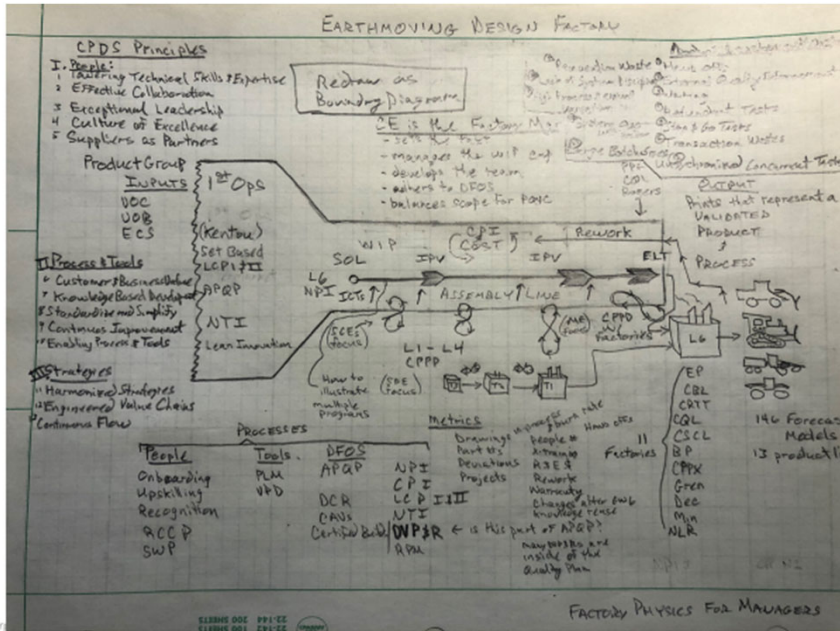
visual management really
being able to see..I
call it a design
factory.. don't take
that as a mechanistic
bureaucratic view of
this. It's that we've
got a lot of stuff going
on. I want to know, we
want to know early, that
the health of our
engineering business is
good --Steve

(the focus of lean is)
“Get Stable and then
Continuously Improve”

- Jim Womack, Boston LEI Conference, July 2022



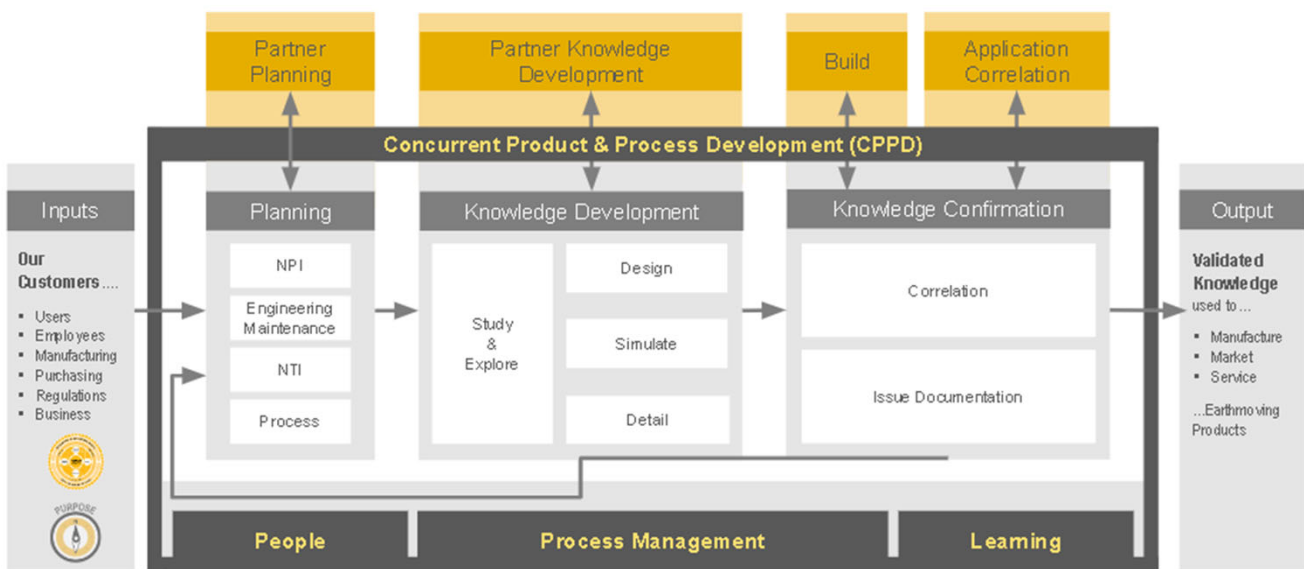
Steve Shoemaker – Formulating the Vision early 2021



2/1/21 Engineering Dept Mtg
visual management established with. The design factory . . .

visual management really being able to see.. I call it a design factory.. don't take that as a mechanistic bureaucratic view of this. It's that we've got a lot of stuff going on. I want to know, we want to know early, that the health of our engineering business is good --Steve

The Design Factory





“If I knew how long the journey was going to be, I would have started a lot earlier”

- Know Your Why
- Make the Work Visible
- Get Stable and then Continuously Improve