



25<sup>TH</sup> LCI CONGRESS

OCTOBER 24-27, 2023

# 25<sup>TH</sup> LCI CONGRESS

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# **Will Lichtig** **The Boldt Company**

**25 YEARS OF LEARNING**  
**SUPERCHARGE YOUR LEAN JOURNEY IN THE MOTOR CITY**





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# The Future of Lean Construction

**Glenn Ballard**

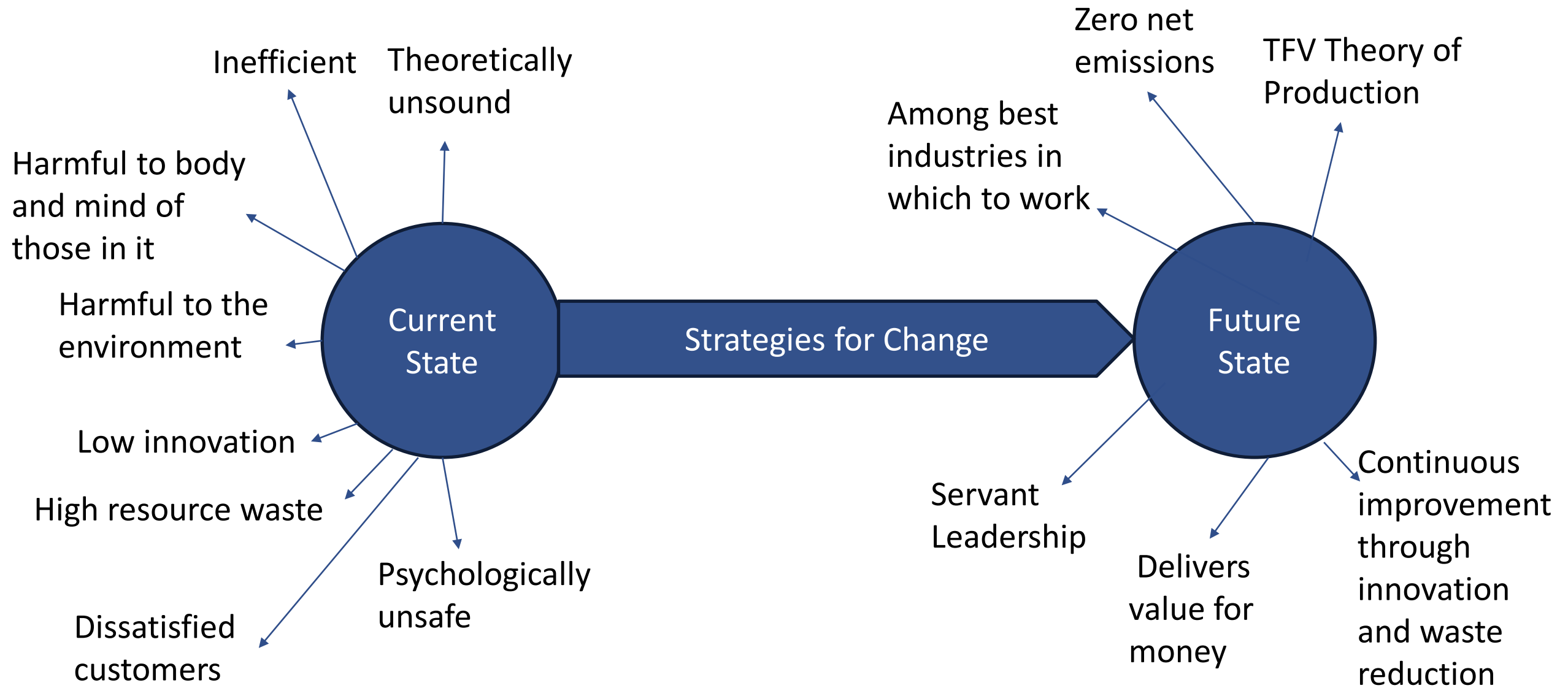
**University of California Berkeley**

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# Obstacles to the Take-Up of Lean

- ▶ Failure to educate the youth in new concepts and principles before they become habituated to the old
- ▶ Not understanding how industries, organizations and individuals change
- ▶ Resistance by those who live off the waste
- ▶ Paradigms

*Leonova, et al. "Strategies That Can Help Transform the Construction Industry". IGLC 2017*

*Gehbauer et al. "How Research Can Help Transform the Construction Industry". IGLC 2017*

*Korb and Ballard. "Seeing is Believing". IGLC 2018*



# Believing is Seeing

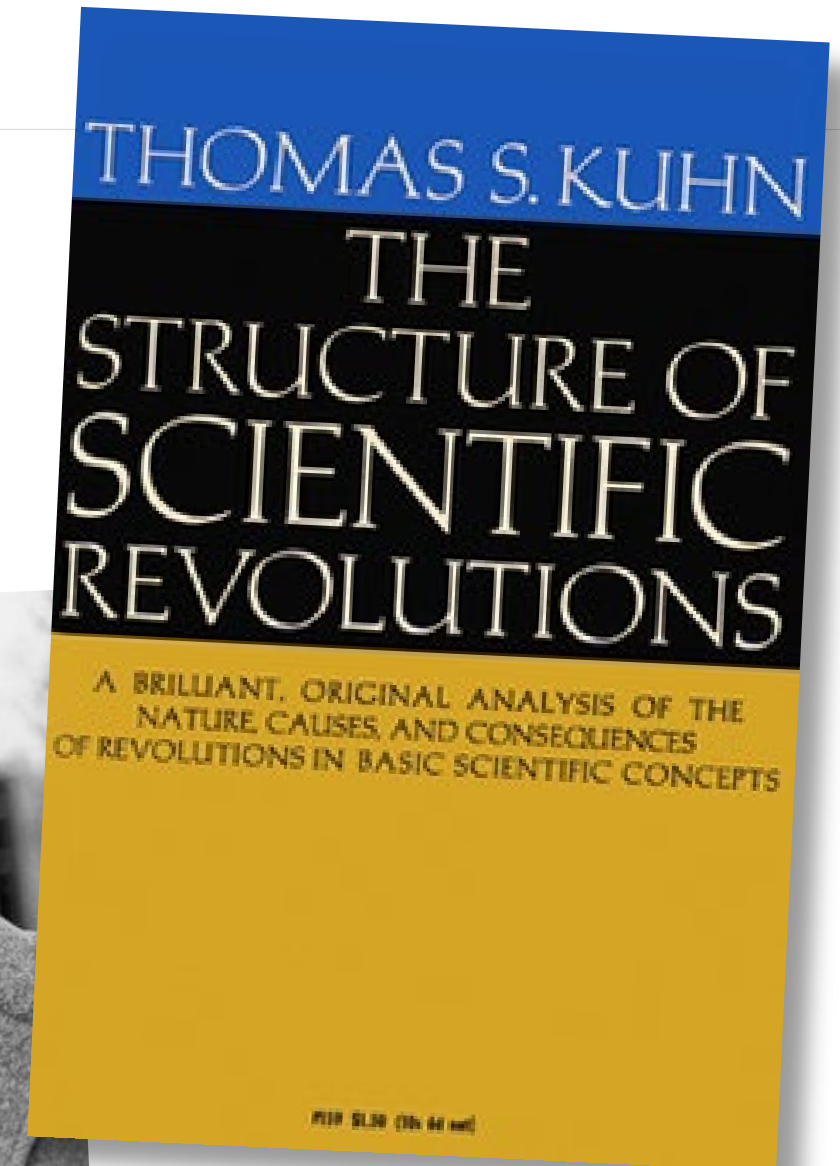
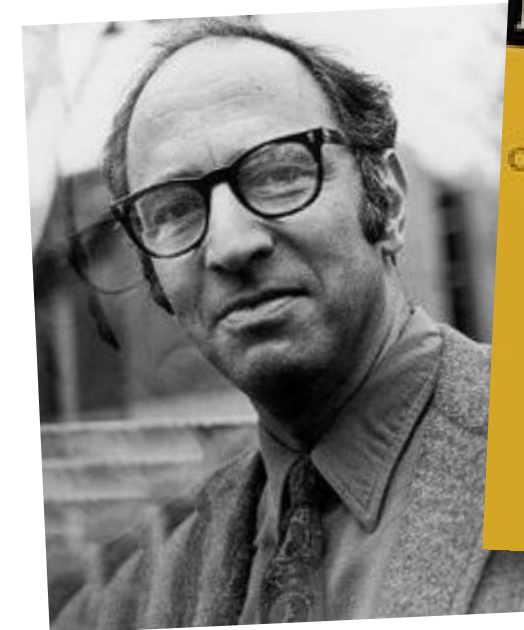
- ▶ Samuel Korb, Technion (Israel Institute of Technology)
- ▶ Glenn Ballard, University of California Berkeley

*International Group for Lean Construction Conference 2018*



# What are Paradigms?

- ▶ Assumptions about reality; the filter through which one sees the world—facts only have meaning through the lens of paradigms.
- ▶ In traditional paradigms, Lean's claims are impossible.



*International Group for Lean Construction Conference 2018*



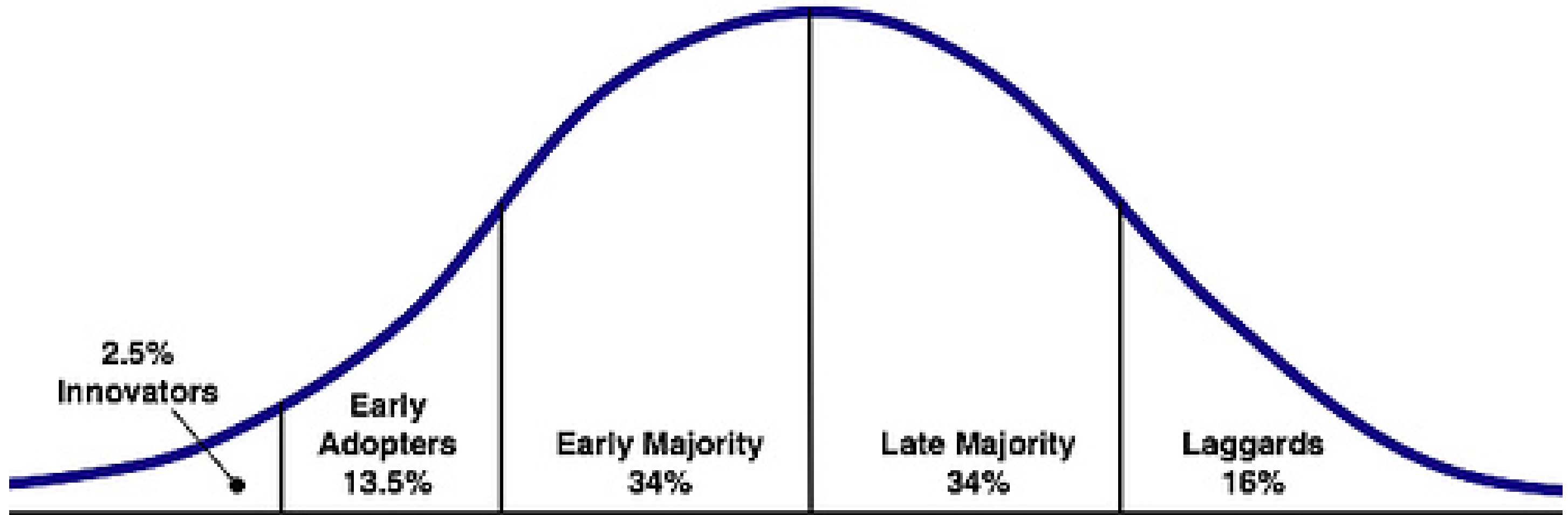
# Examples of Traditional Construction Management Paradigms

- ▶ Trust is for suckers
- ▶ Win-win is an illusion. What counts is that I win.
- ▶ Risk is managed when transferred to someone else.
- ▶ What you pay for a project is determined by the deals you make for each product and service needed to complete the project--You can manage projects by managing contracts.



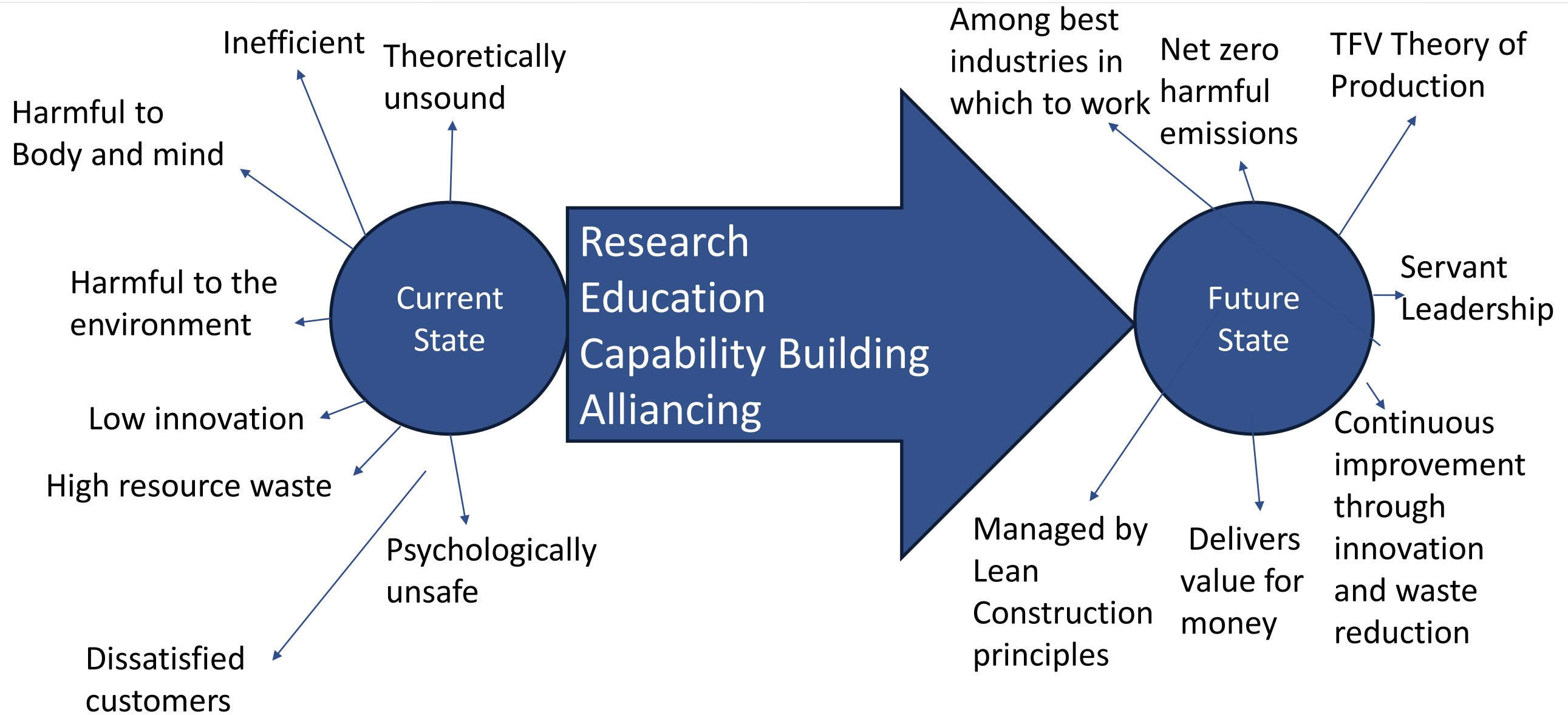


# A Mechanism for Change



*Source: Ernest Rogers' Diffusion of Innovations/Flickr*

# A Strategy for Change





# Research

- a) Further articulate the theoretical foundations of Lean and Lean Construction
- b) Accumulate evidence against the assumed truth of paradigms and for the superiority of Lean
- c) Challenge traditional thinking (paradigms)--Participate in mainstream conferences and publish in mainstream journals
- d) Take the lead in new frontiers such as digitalization
- e) More completely incorporate operations science into Lean Construction

Ballard, G., Harper, N. and Zabelle, T., 2003. Learning to see work flow: an application of lean concepts to precast concrete fabrication. *Engineering, Construction and Architectural Management.*)

# Education

- a) Educate coming generations
- b) Educate public and private owners what to expect from Lean suppliers, what to demand of them and what to do to help suppliers meet those demands



# Alliancing

## INTERNATIONAL GROUP FOR LEAN CONSTRUCTION

### Lean Construction Institutes

- Argentina
- Australia/New Zealand
- Bolivia
- Brazil
- Canada
- Colombia
- Chile
- Denmark
- Finland
- France
- India
- Mexico
- Netherlands
- Norway
- Peru
- Qatar
- Sweden
- Spain
- UK
- USA

### Construction Industry Associations

- Architectural Associations
- Construction Owner Associations
- Construction Users Roundtable
- Construction Supplier Associations
- General Contractor Associations
- Subcontractor Associations
- Trade Contractor Associations
- Academic and Gov't Research; e.g.,  
Construction Industry Institute, National  
Institute of Standards and Technology



# Capability Building

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- a) Provide coaching for students and advisors without Lean backgrounds
- b) Nurture capable Lean Construction consultants
- c) Accelerate competitiveness of Lean practitioners



# Thank you for Your Attention

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If you want to comment on or ask questions about my proposal,  
I'm happy to hear from you at *[gballard@berkeley.edu](mailto:gballard@berkeley.edu)*





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