Time, Money and Culture
How Lean Construction is transforming New Zealand’s Construction Industry

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Agenda

- Current State
- Response
- Outputs so far

[Diagram showing a map of New Zealand with sections for time, money, and culture]
Construction productivity is lagging

- $200k Average turnover for NZ construction company
- Low technology uptake
- Culture of single project ‘lowest cost tendering’
Performance is getting better?

- 2006 – Boom
- 2011 – Bust
- 2012 – Start of Boom
The Wall of Work is coming here!

### Current State

- Christchurch Rebuild
- ‘Leaky Buildings’
- RONs

![Construction industry workloads graph](image)

Ian Page, BRANZ
Industry Activities

- Culture
- Technologies
- Relationships
  - Procurement
  - Knowledge Sharing
  - Innovation
Lean Construction

- Last Planner™
- Waste Busting
- 5S
- STOP
- Yellow & Green Belts (PDCA)
- Target Value Design (TVD)
Last Planner

- Widely adopted
- 100% Success in delivery to TIME
- Significant Culture Change

Last Planner has made a huge impact.

We managed to pull back the six weeks and finish on programme. A huge achievement!
Waste Busting – Blue Cards

Outputs so far

- $$$$M saved
- Everyone engaged
- Rewards and Recognition
Target Value Design

- Nine Principles
- Self Assessment
- Next Steps
  - Measure more projects
  - Set Benchmarks
  - Use PDCA to improve
In Conclusion...

Current State  Response  Outputs so far

Lean Construction Institute
Transforming Design and Construction
Lean Construction in Practice

Darron Monaghan
What we did at WCA

- Training for Supervisors and Engineers.
- Lean Leadership Group
- Simple reporting system
- Developed Collateral
- Drove it daily
- Immediate feedback & recognition
Site Waste Inspection (5S)

- Regular inspections.
- Any site walk a focus on waste and stock control.
- A photograph would then be sent to supervisors and engineers in the area.
- Being measured kept them on their toes.
- It became quite competitive.
Supervisor Training

- Once per week
- 1 hour over lunch
- Select a pertinent policy or procedure
- Up skill or refresh knowledge
Success stories

Waterview Alliance:
- SAT programme – 2 months behind to 2 days early
- Identified $2M+ of improvements in 1 year
- Average 42 work hours per week
- 86% improvement in safety results

M2PP Alliance:
- Identified $1.2M+ of improvements in 3 months

Last Planner:
- Dowse to Petone
- Eastport
- VPT
- MHX
Cultural benefits

- Open
- Engaged
- Committed
- Challenged
- Focused
- Work/life balance
- Valued
- Respected
- Happier
- Professional
- Safer
- Self reflection
Hurdles & Roadblocks

- We don’t build cars
- We already do that
- The other guy needs it, not me
- We don’t need it
- We’re doing well, why change?
- It won’t work here
- We’re different
Hurdles & Roadblocks

- Level of leadership commitment required
- It seems ‘too simple’
- Reward and recognition
- Can be hard to measure definitively
- Breaking the elephant down
  - Where to start?
Next Steps

- Develop a company wide strategy
- Continue training
- Spread the lessons learnt