

IRI Webinar

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LEAN-DRIVEN INNOVATION – LEVERAGING LEAN PRINCIPLES IN R&D

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Poll:

Is your company using lean principles in R&D?

- Yes
- No



What is LEAN?

- ▶ Toyota – TPS
- ▶ Toyota R&D – KM popular
- ▶ Lean in R&D not popular – focus on waste and cost were counterproductive
- ▶ Question – can innovation thrive in a disciplined process or does it require complete freedom?
 - ▶ YES
 - ▶ NO

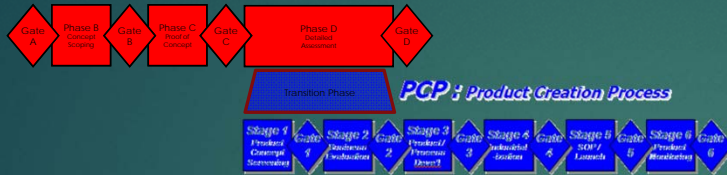


Why Improve?

- ▶ Global Economy
- ▶ Includes “intellectual” work
- ▶ Become the BEST at **HOW** you do your work



Goodyear's Case for Change



Successes

- ▶ 1,500+ new SKU's every year – all meet business case
- ▶ Safety/quality indicators at all time best
- ▶ OTD increased from <20% to 95%
- ▶ CT reduced by 75%
- ▶ Throughput increased by a factor of 3x
- ▶ Employee engagement improved



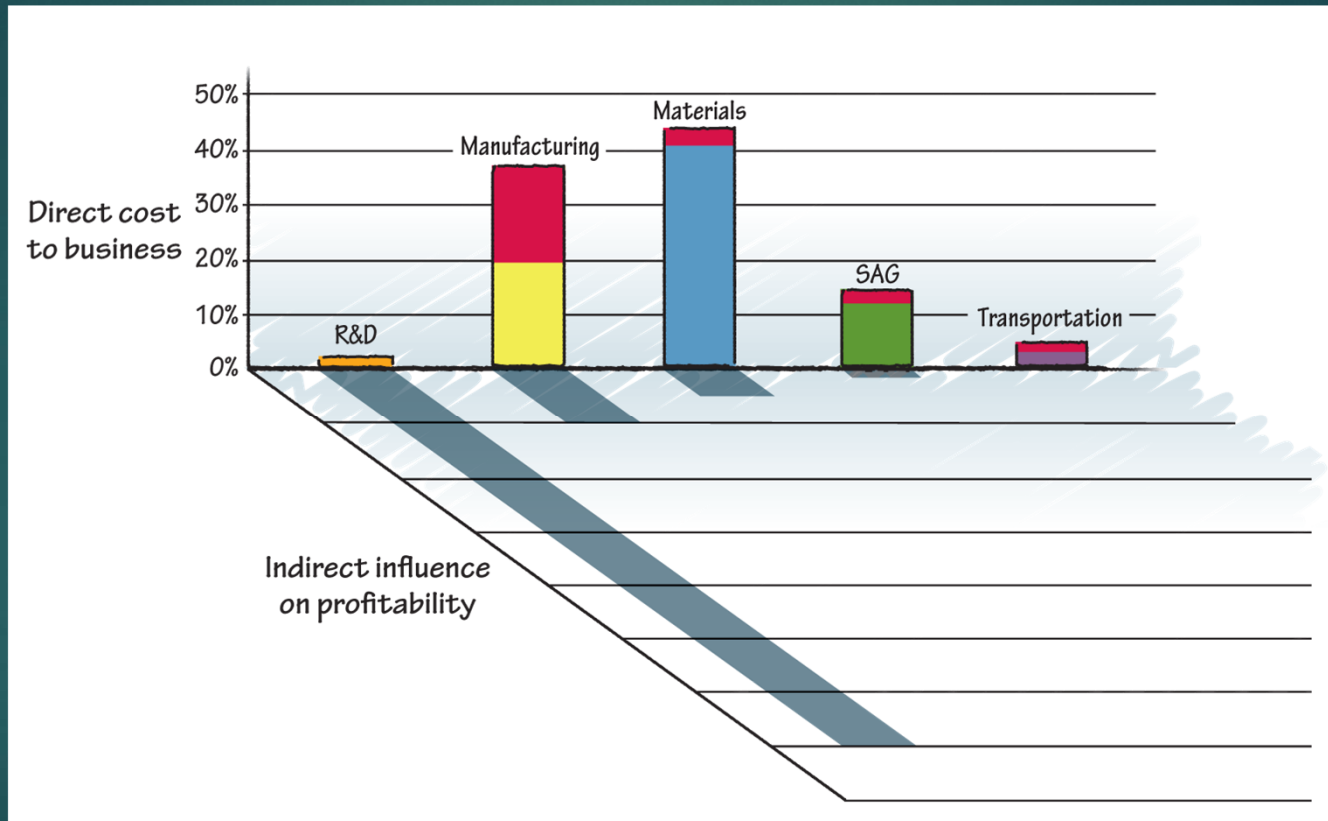
Lessons Learned

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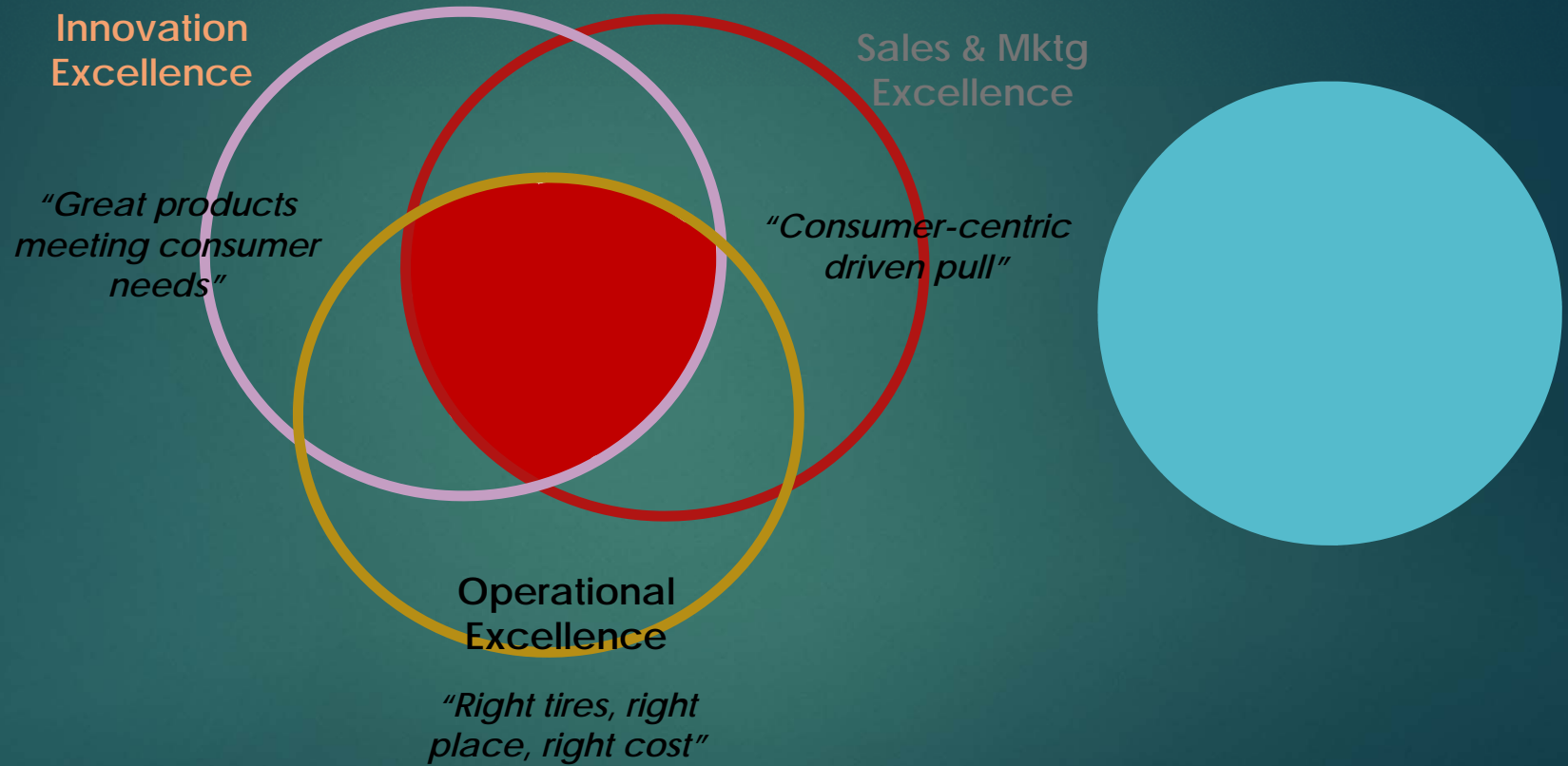
- ▶ Shadows
- ▶ Collaboration
- ▶ Speed
 - ▶ Late Start
 - ▶ Visual Planning
 - ▶ Waste
- ▶ Inside/out Transformation



Apply Lean to the Shadows



Win at the Intersection



Collaborate and align to win at the intersection

Questions so far?

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Fast is better than slow...

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If I had only one thing
to focus on, it would be
SPEED



Why is R&D Speed Important?

Fast is better than slow...

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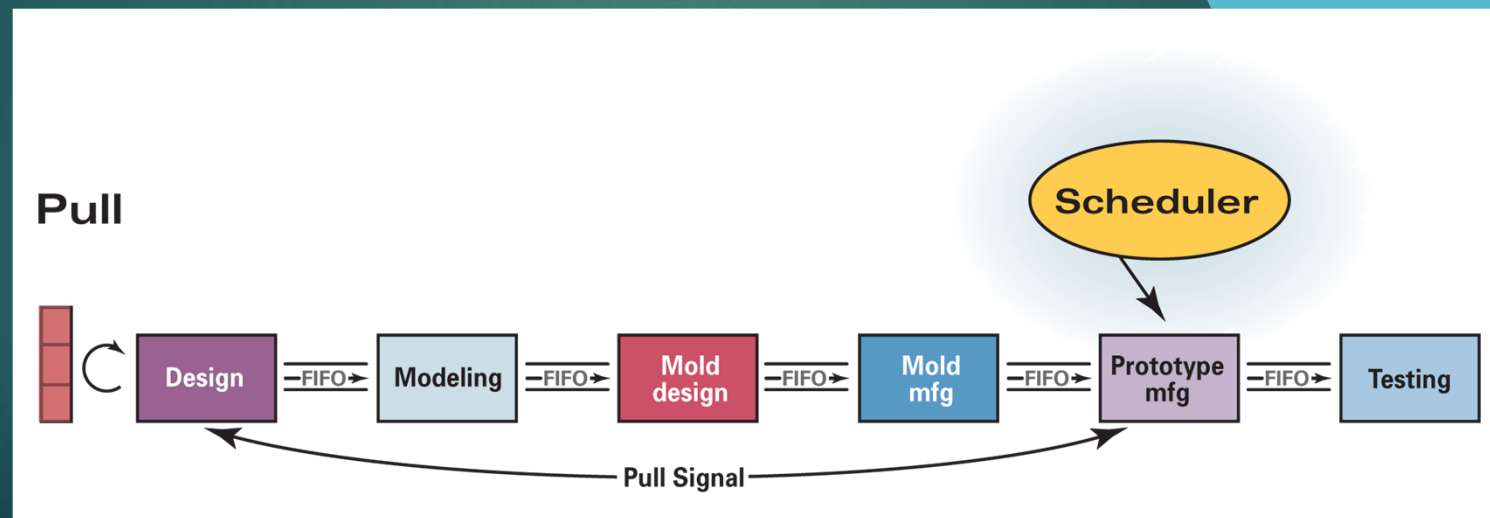
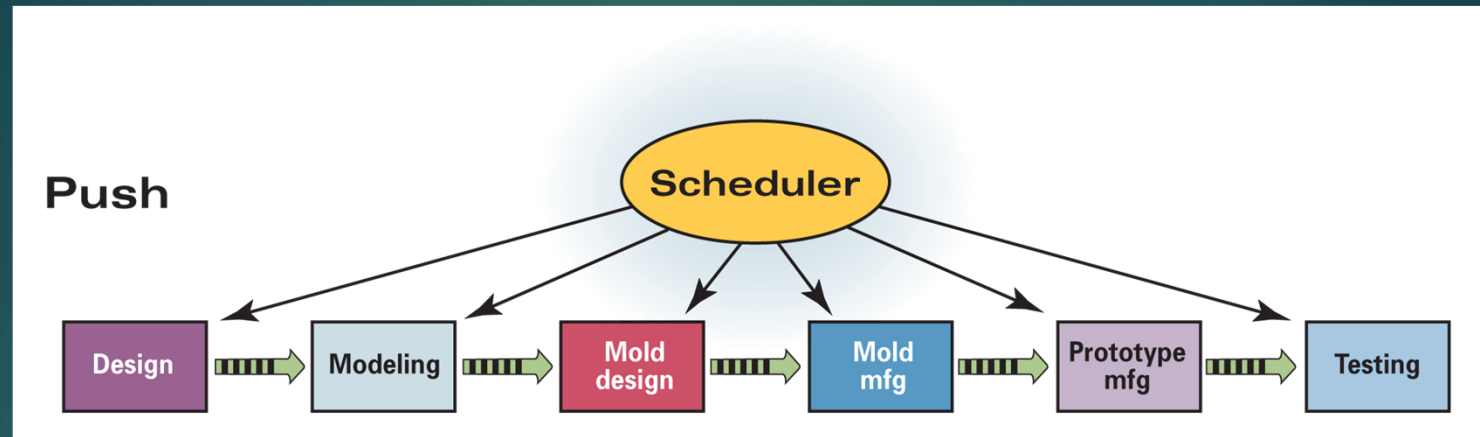
If I had only one thing to focus on,
it would be SPEED

- Competitive advantage
- Faster learning, better risk management
- Better cash flow
- **Collaterals of efficiency**

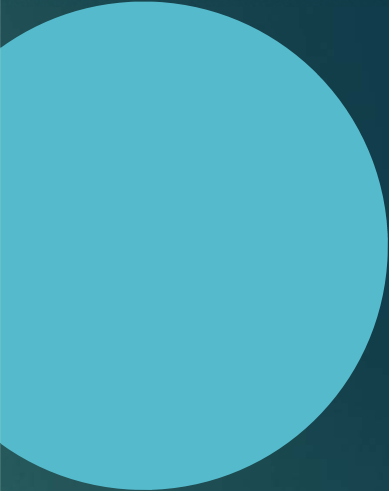
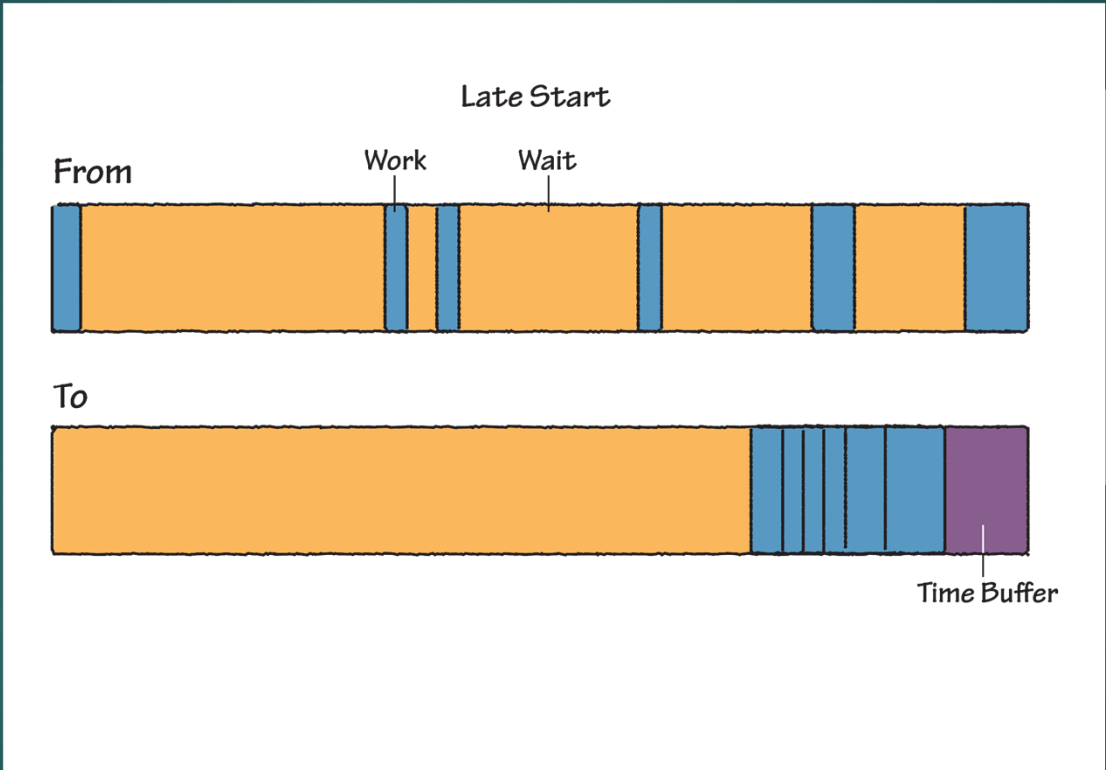


Push and Pull

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Late Start



Why Late Start?

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- ▶ Know more
- ▶ Cost of change (flexibility)
- ▶ NO changes
- ▶ Parkinson principle
- ▶ Cash flow



Visual Planning

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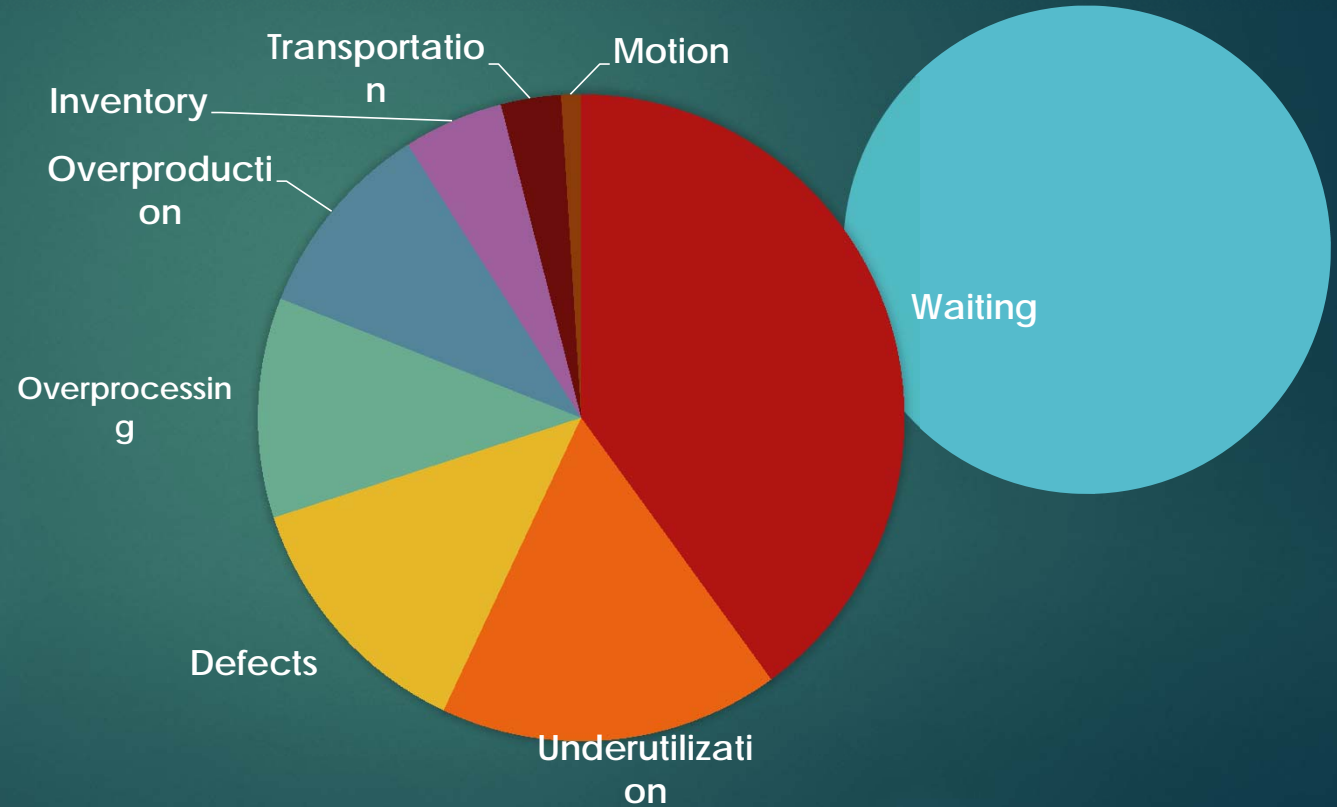


1,500+ new SKU's globally every year
1,000+ Projects at one time
4,000 learning cycles/year
30 min business meeting every 2 weeks

Waste:

What the customer would not pay for

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What other wastes do you know?

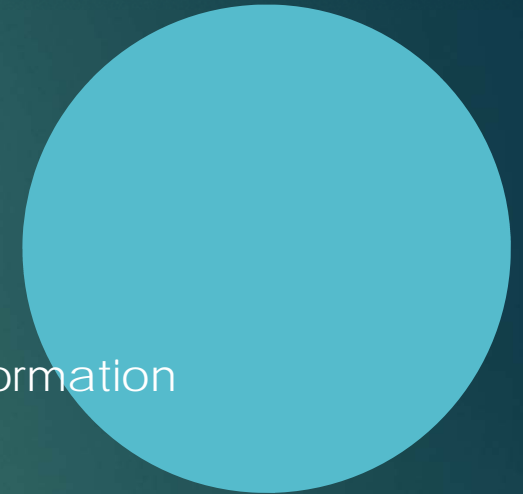
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How to implement: **Inside Out Transformation**

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- ▶ Learn the principles
- ▶ Teach the principles to the people who do the work
- ▶ Engage the people and coach them through the transformation
- ▶ Help sustain the gains



Summary

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Lean has done more for **Goodyear Innovation** than any other initiative

- ▶ Focus on principles, value and shadows
- ▶ Align through the value chain
- ▶ Eliminate waste – get fast
- ▶ Teach people who work in the process and engage them in the change



Discussion

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