



human energy®

My Project Production Management journey

Gary Fischer

General Manager – Special Projects
Project Resources Company

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My plan



Who is Chevron

A leading international energy company

2nd

largest integrated energy company headquartered in the United States – among the largest corporations in the world

51,000+

employees worldwide

2.7 million

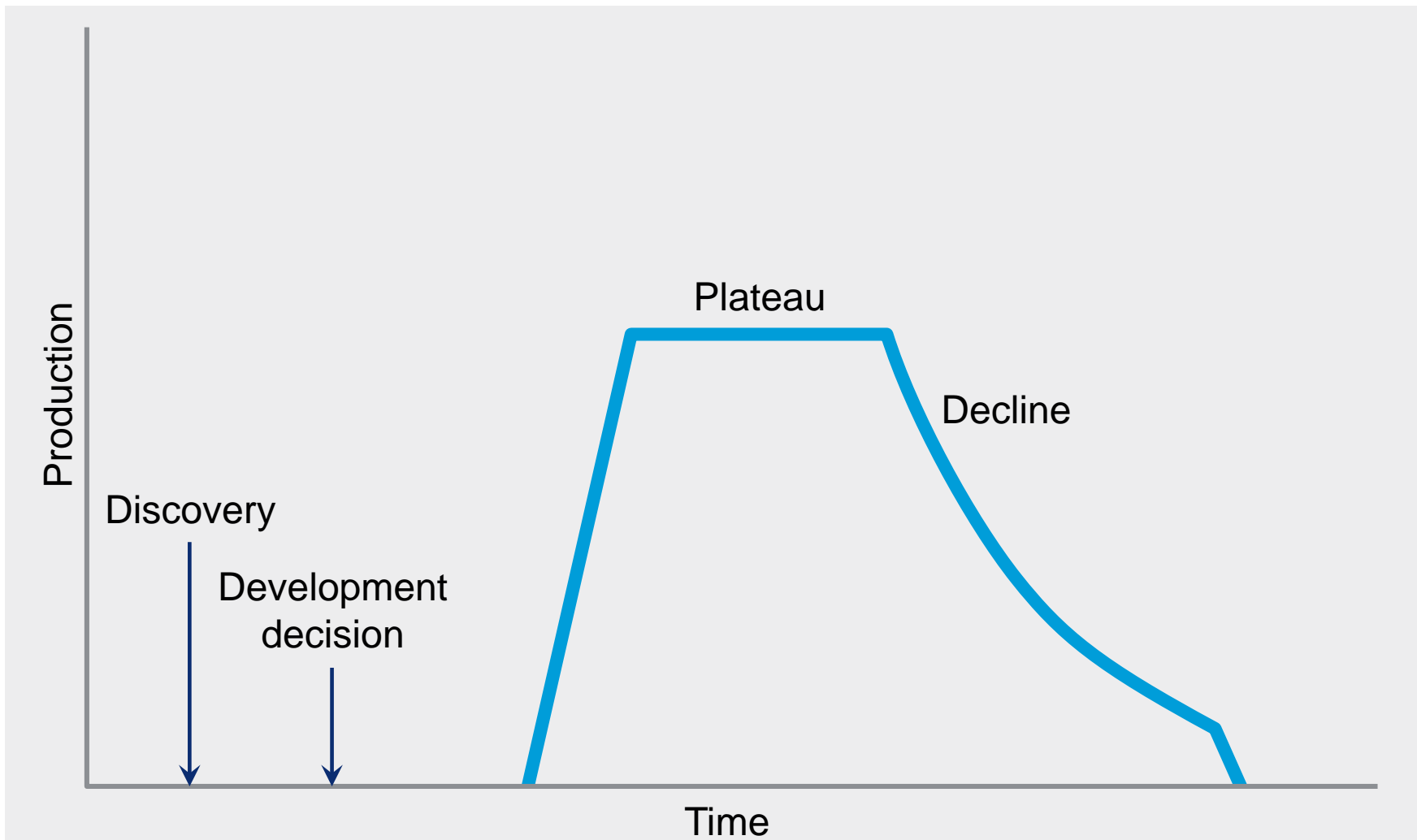
barrels per day of oil-equivalent net production

1.7 million

barrels per day refining capacity



Why is effective capital investment the lifeblood of Chevron's business ?



Project management in Chevron

Chevron's project management system is based on best practices in the oil and gas industry.

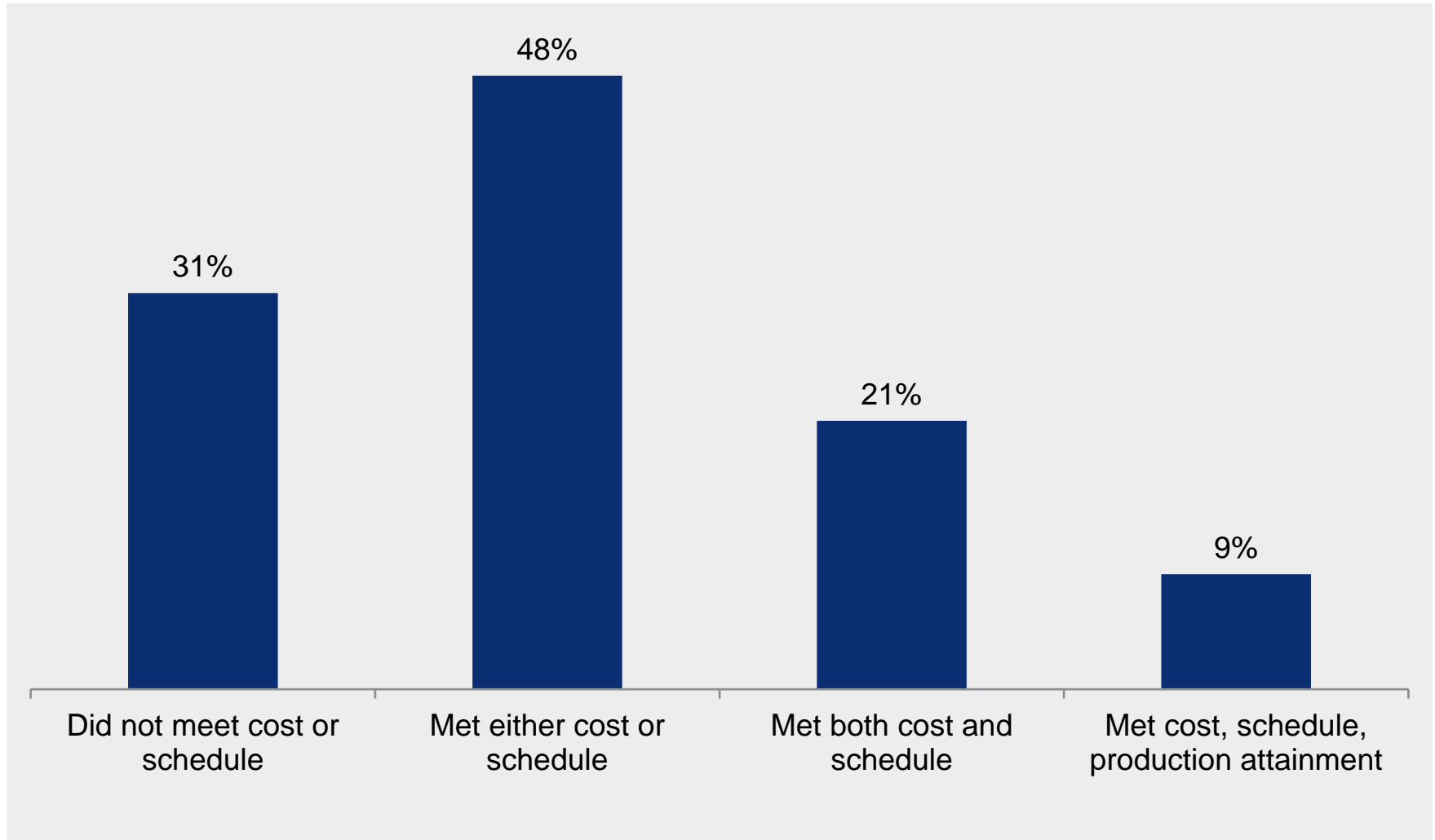
Chevron Project Management System



Predictable & Competitive Project Performance



In spite of our best efforts we are not getting acceptable results



Data source: Independent Project Analysis (IPA)



**Realizing that – began my personal journey
looking outside our industry for answers**



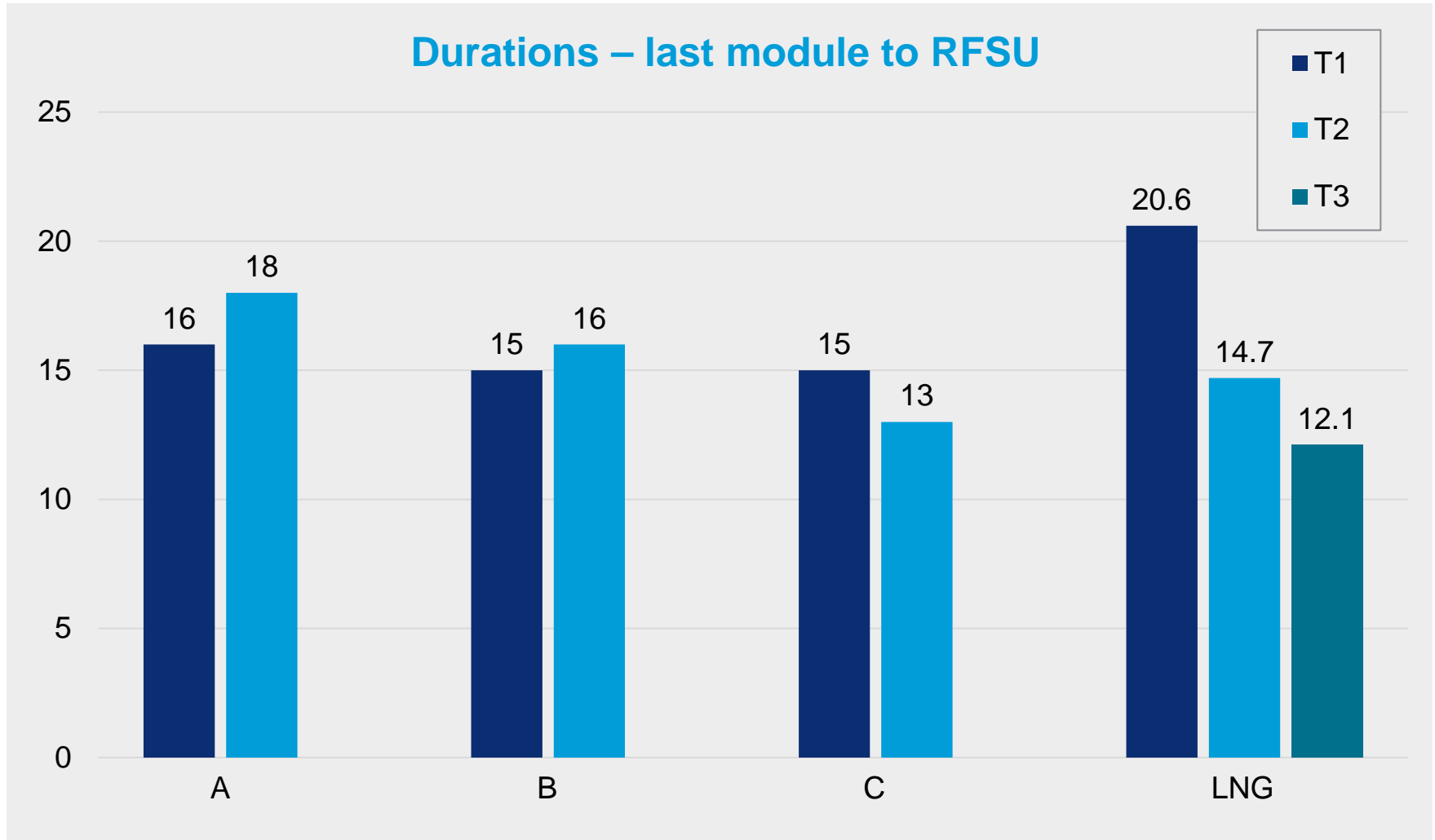
SPS invested significant time

2

Saw enough to
experiment



Production Control effectively employed on completion of a large LNG project



A major breakthrough in the relationships between construction supervision at site emerged

“With PPC, we now speak every day. And more than that, we coordinate our work and make commitments to each other, and every day we hold each other accountable for meeting commitments.”

— Piping superintendent for the refrigeration compressor



SPS invested even more time in me

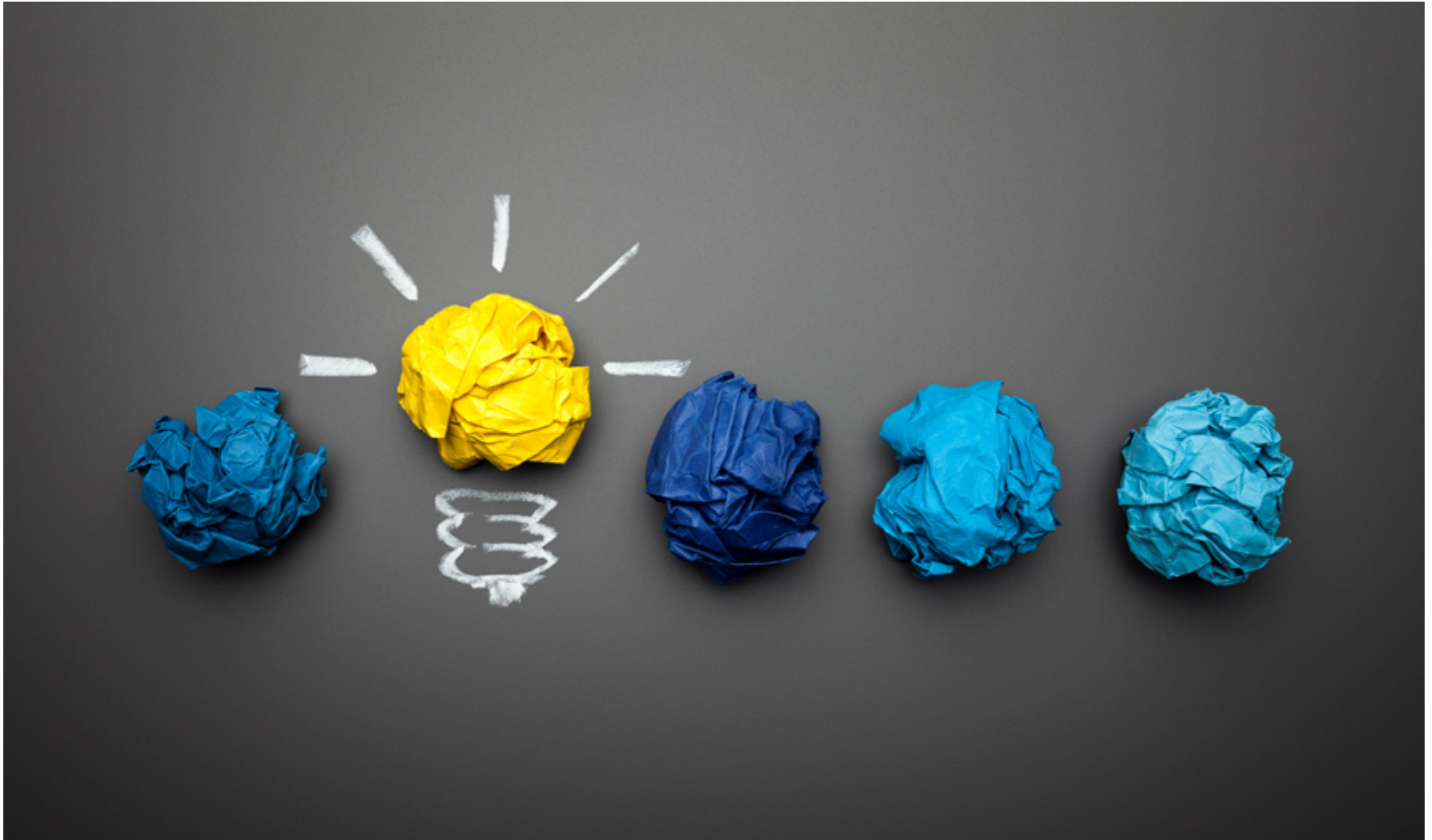
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**times over
Heathrow Terminal 5
and Hess**



Lightbulb came on

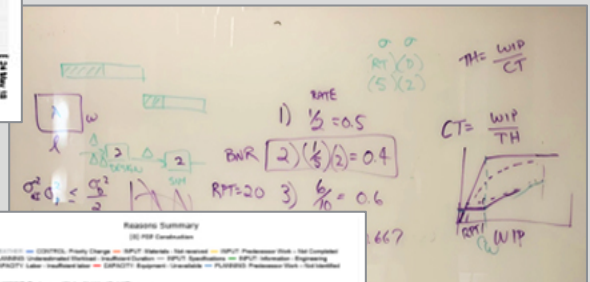
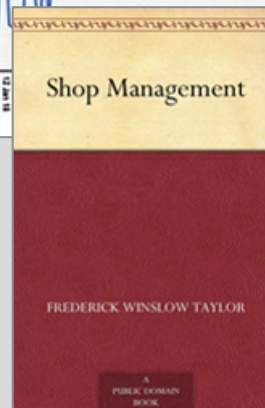
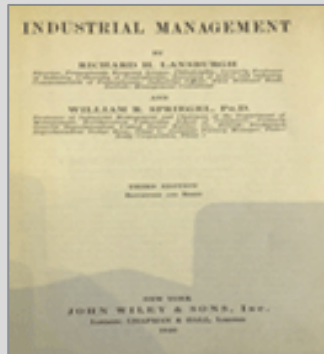
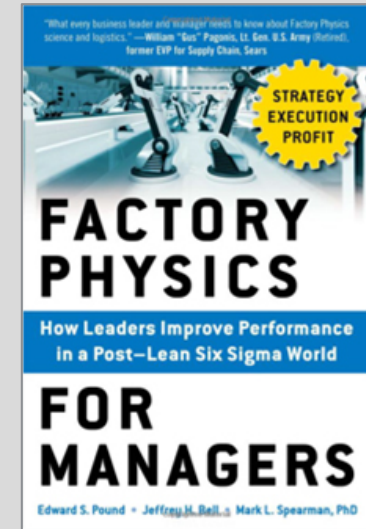
Rapid learning journey



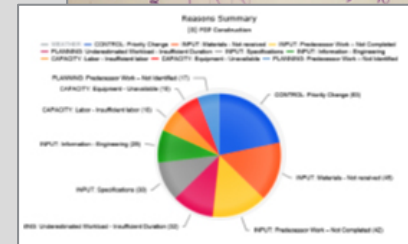
Seeing things through different eyes



A whole new vocabulary and insights



Toyota's Principles of Set-Based Concurrent Engineering



Learning and applying

Chevron has proven feasibility of PPM as a solution to close a significant performance gap in the industry and demonstrated the value of employing PPM on major capital projects.

Objective	Learning
Value demonstration	Significant schedule compression from 60% complete to RSFU. Train 1 – 20 months, Train 2 – 7 months and Train 3 – 6 months
Enterprise MCP deployment	Recovered production of loop diagrams for first sea lift. EPC engineers do not understand work flows and discipline interdependencies. Offices with the same company have inconsistent work flows for the same work.
	Production planning/control connected to Installation Work Packaging improves production efficiency. Reduction of IWP (batch) size improves performance. Use of CVX PM (PPC licensed Software) eliminates need for primavera generated 3 week schedules and multiple spreadsheets
	EPC engineers do not understand work flows and how disciplines need to interface. Need for multiple shadow tracking systems can be eliminated using CVX PM.
	PPM requires a significant mind shift. Contractors will embrace when they see the benefit to their performance. Leadership support is vital.



Getting to the real prize – Production Engineering

**In the past
we focused on
“What”, “Who”
and “When”**

**Now more
importantly
“How”**

**Design to build
efficiently**

