



PROJECT PRODUCTION
INSTITUTE

How Do Leading Companies Implement and Benefit from Project Production Management

7th Annual Symposium

48%	21%	9%
Met cost or schedule	Met both cost and schedule	Met cost, schedule and attainment

Source: Independent Project Analysis, 2018

Upstream Projects Fail at an Alarming Rate

Industry practices are grounded in myths and legends

ERA 1 – Taylorism

Getting more out of workers

ERA 2 – Predictability

Critical Path Method (CPM) scheduling and project controls

Front End Loading

3D CADD

Advanced Work Packaging

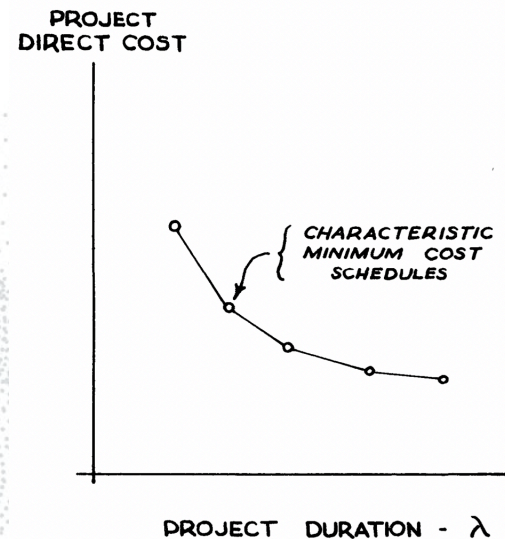
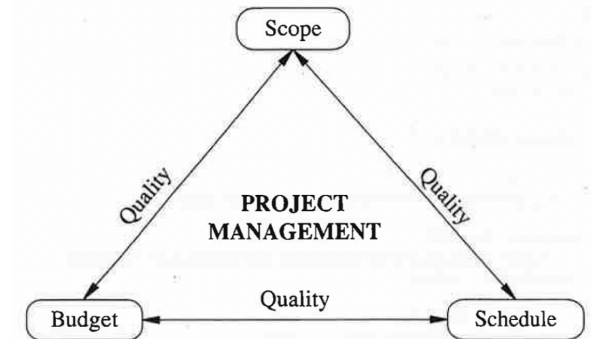


Fig. 3—Typical project cost curve.

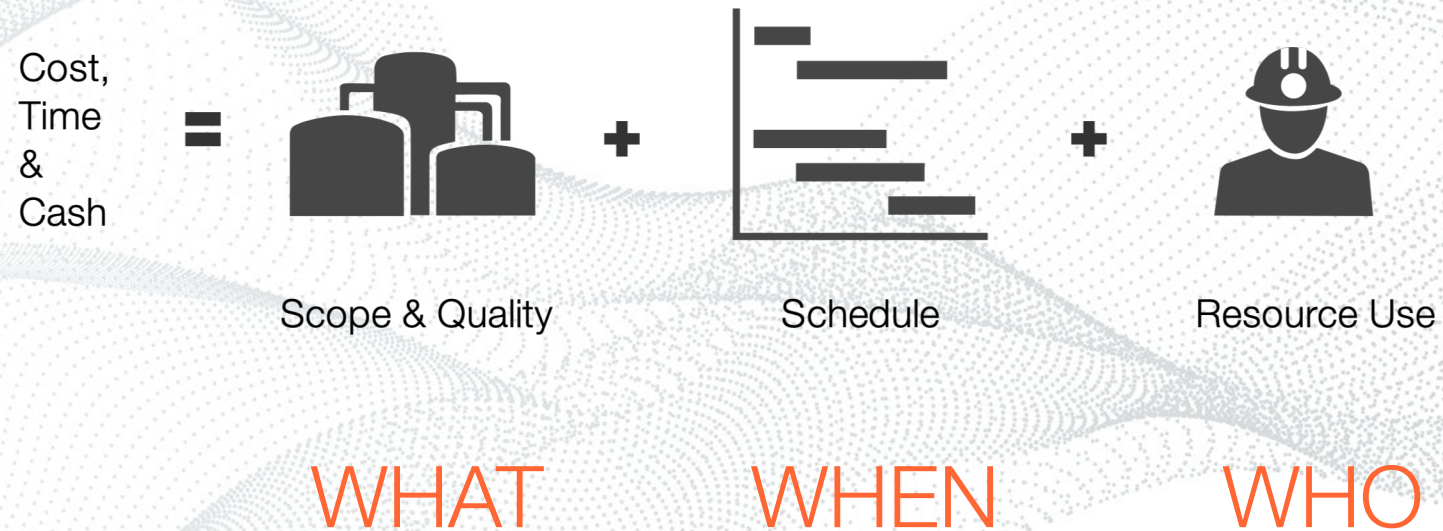
Critical Path Planning and Scheduling Kelley & Walker

Garold D. Oberlender, Ph.D., P.E.

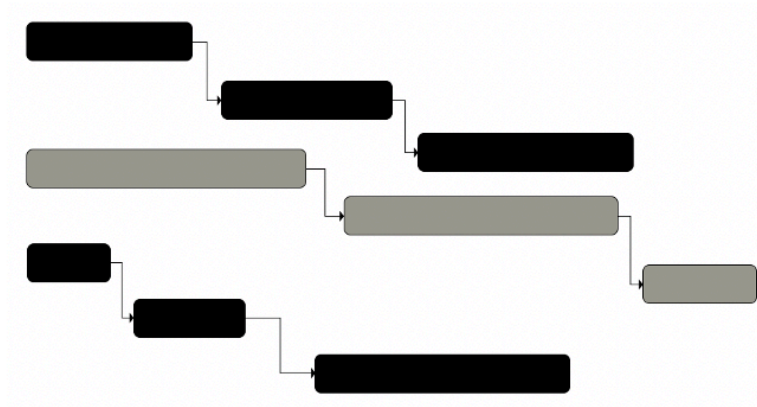
Professor of Civil Engineering
Oklahoma State University



Project Management



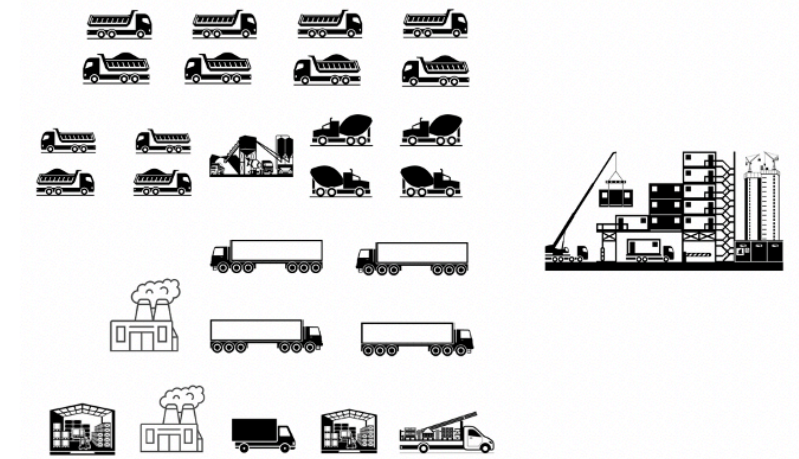
Schedule = Should Happen



Dates & Progress

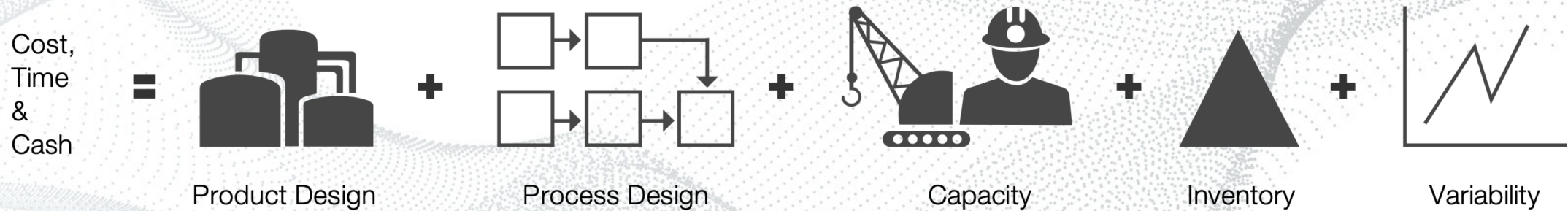
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Production System = Can/Will Happen



Rates / Throughput

What is Really Going On?



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Projects Are Unrecognized Production Systems

Governed by Little's Law: $\text{Cycle Time} = \text{Work in Process} / \text{Throughput}$

Rates drive dates

Dynamic projects require rapid replanning

People doing the work do the real planning

Follow the science

Operations Science IS the “project science”

Project Production Management is applied OS in projects

Understanding basic relationships

Cycle Time

Work-in-Process

Throughput

Utilization

Poll

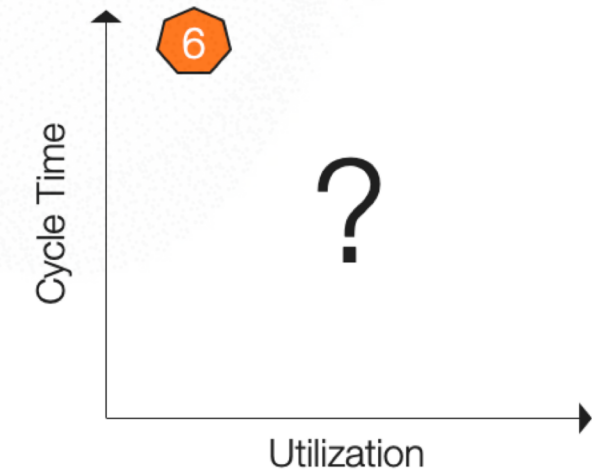
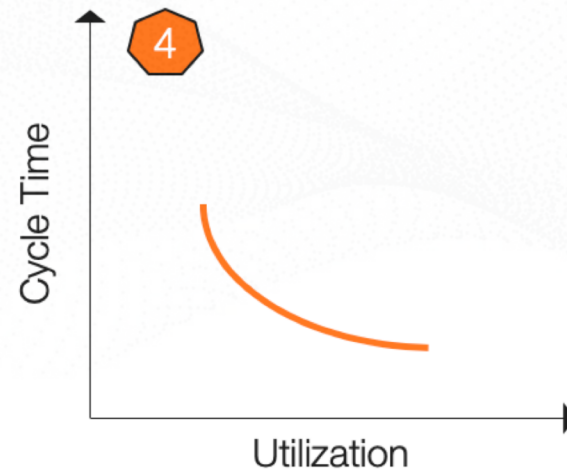
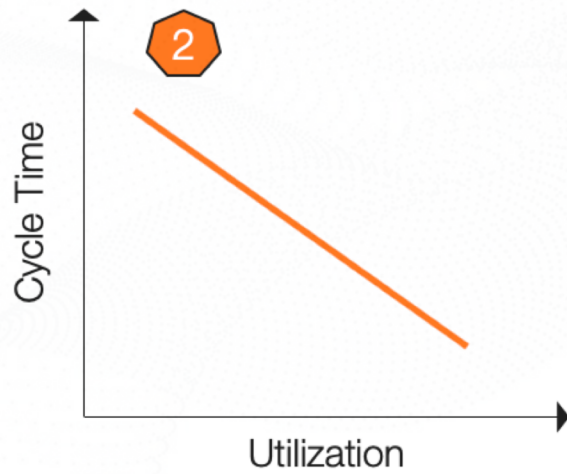
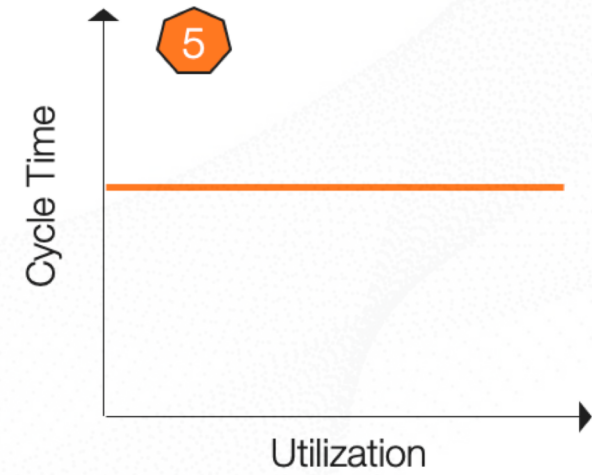
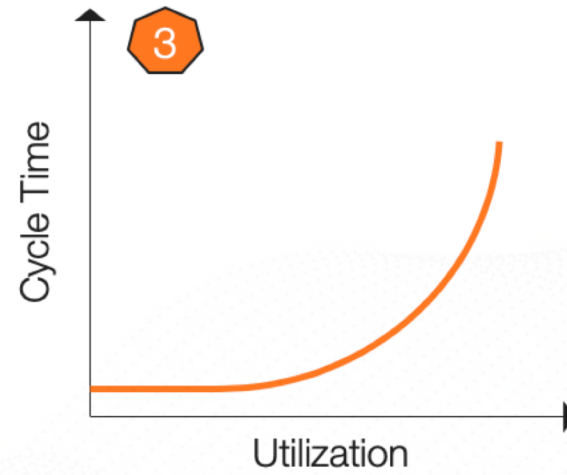
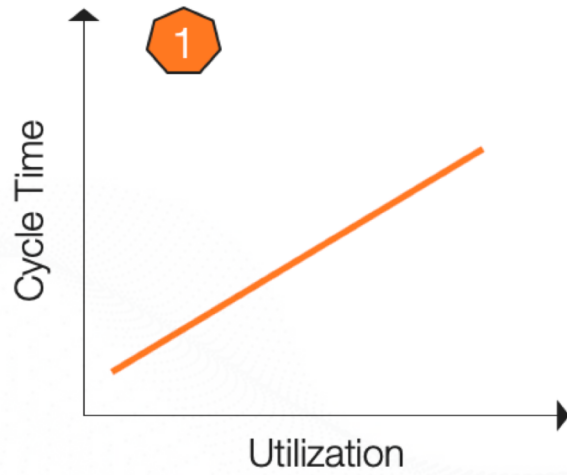
Scan this code with your camera

or

click the link in Zoom chat window

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What is the relationship between Cycle Time and Utilization?

0
1

0
2

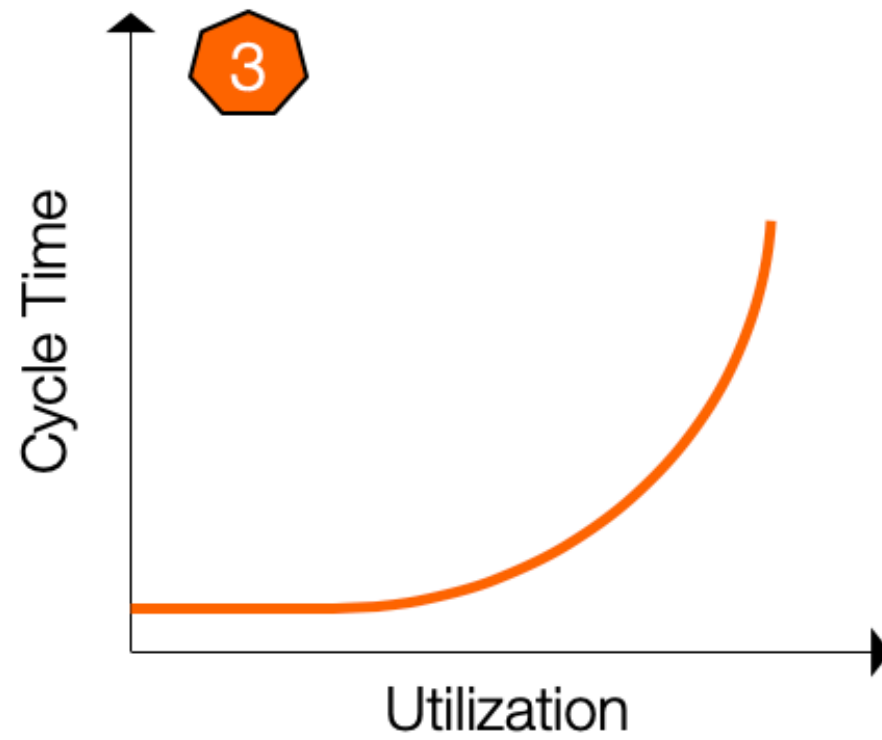
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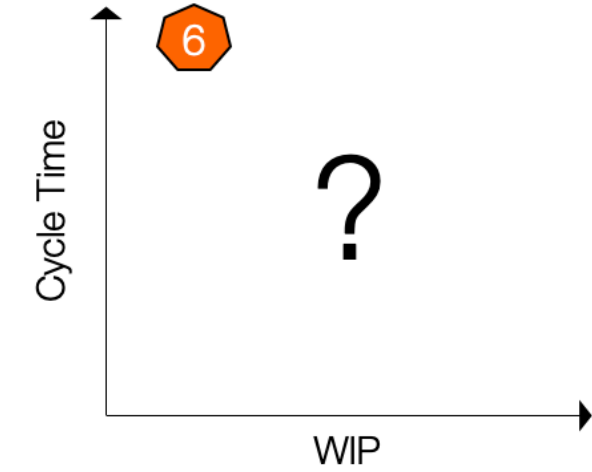
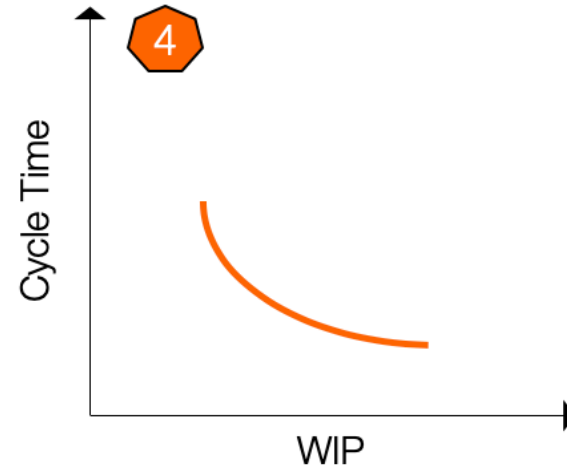
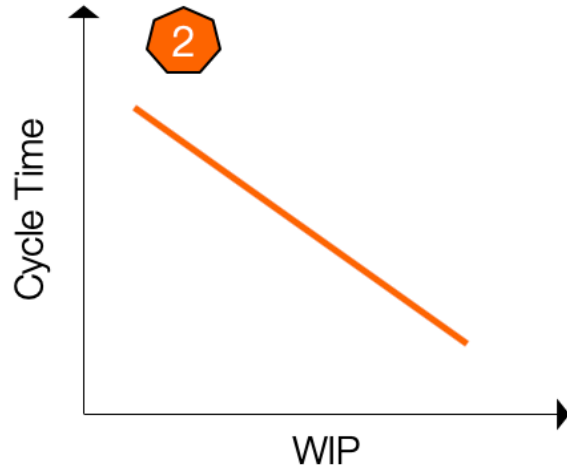
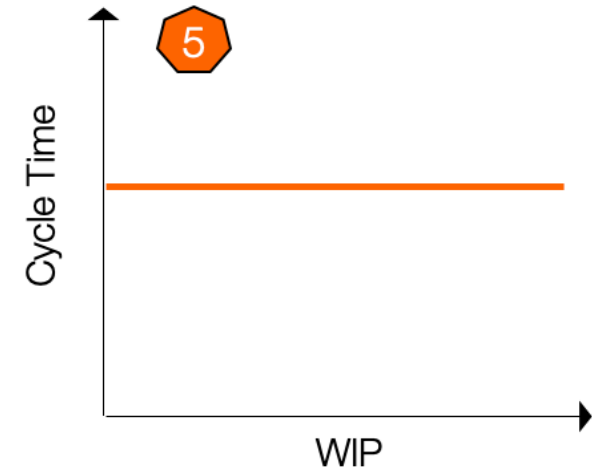
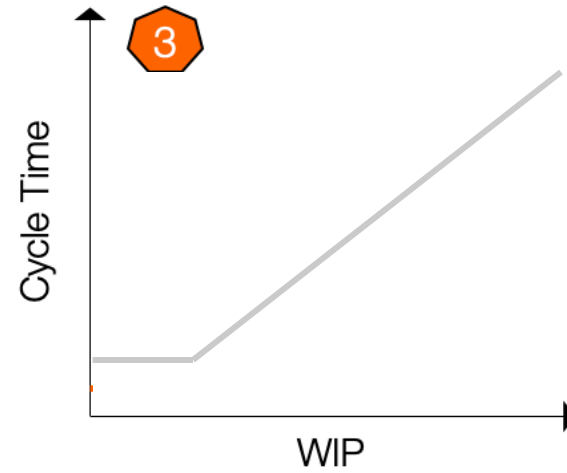
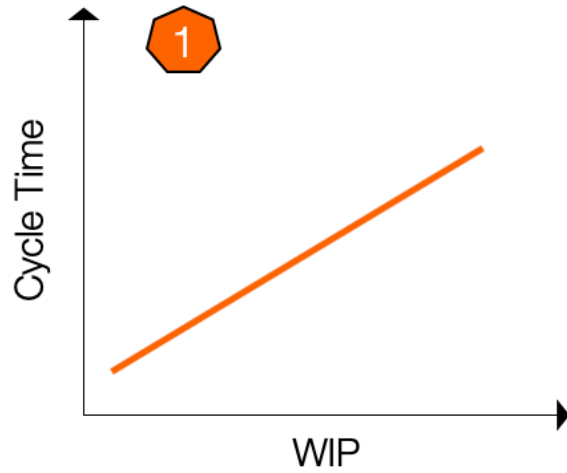
0
4

0
5

0
6







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What is the relationship between Cycle Time and WIP?

0
1

0
2

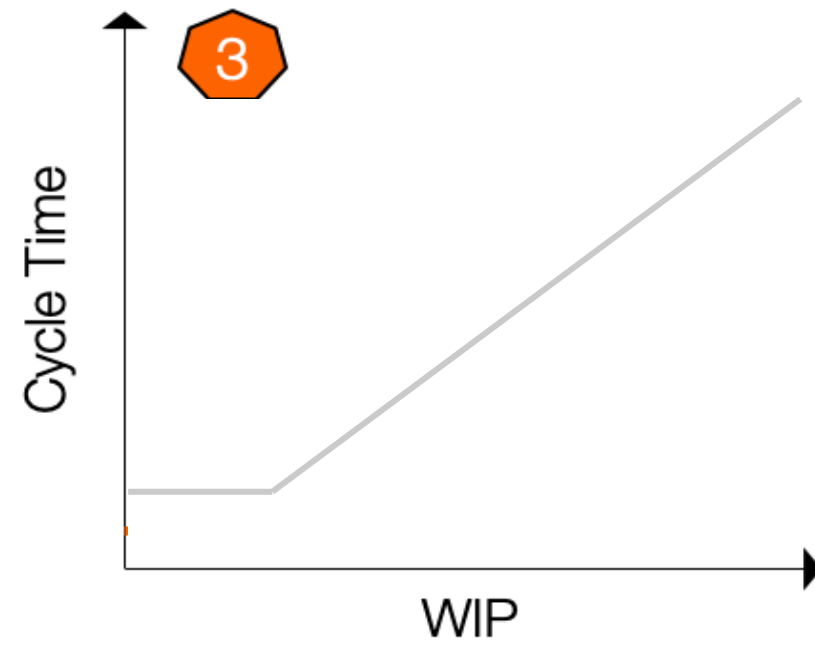
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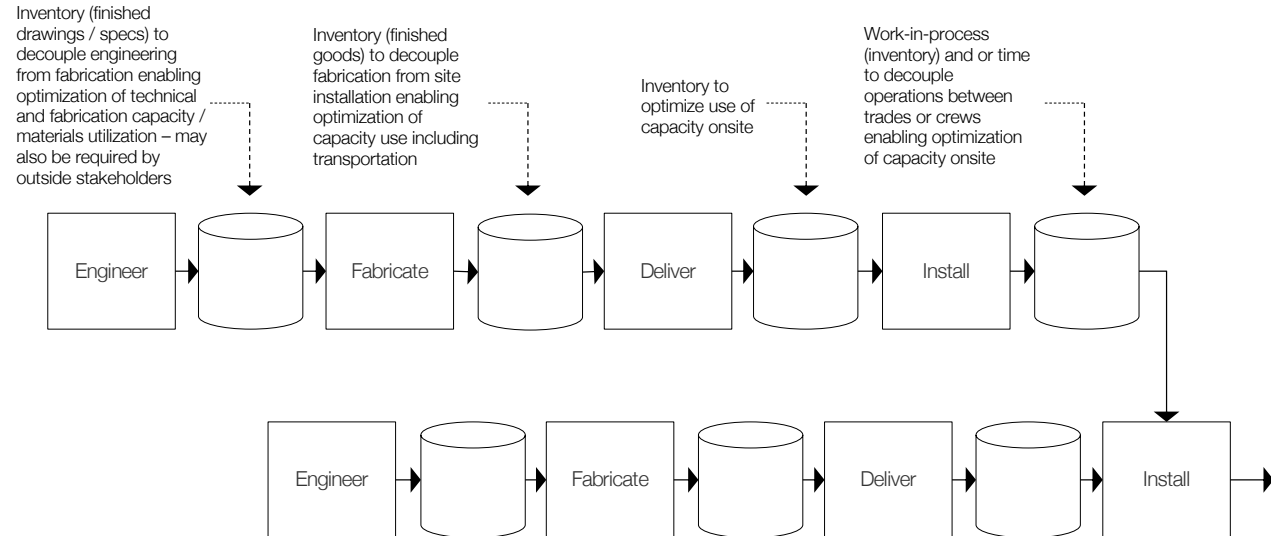
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Projects Naturally Deal with Variability by Protecting Each Step in the Process with Inventory



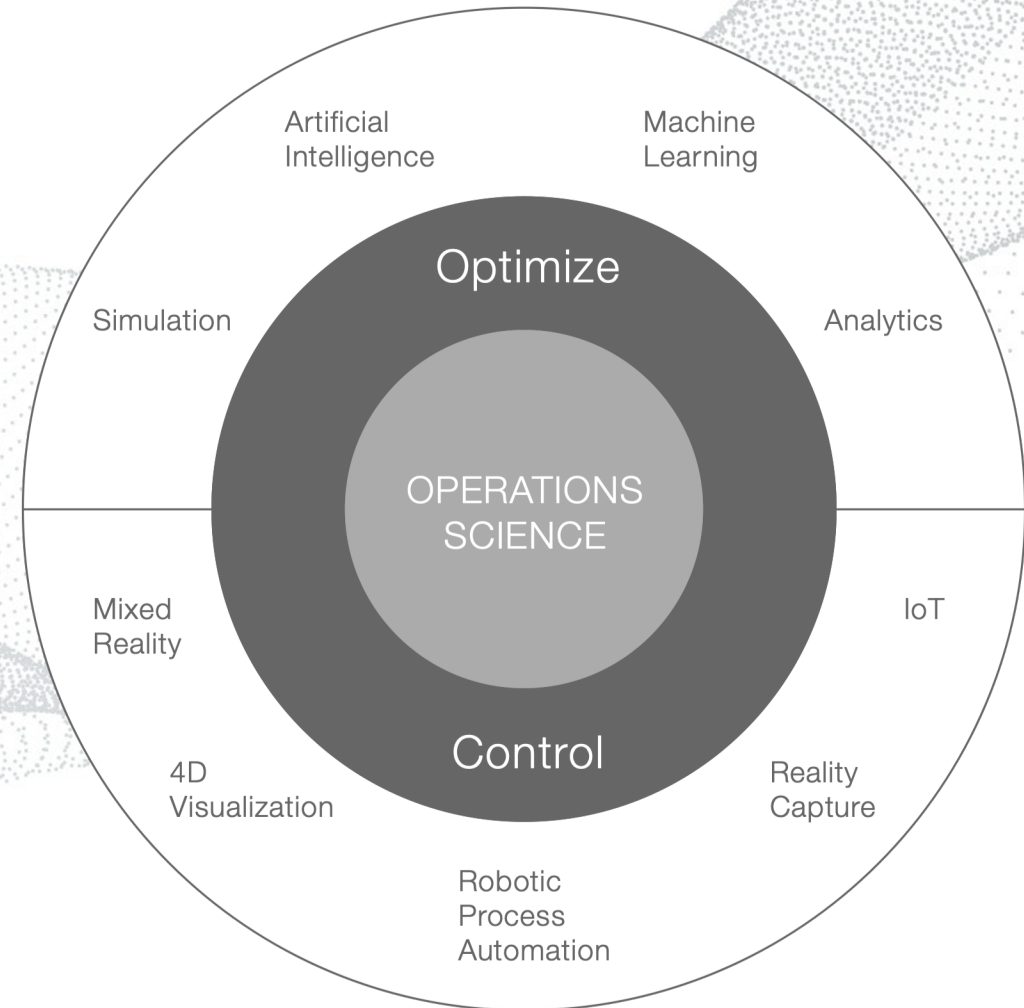
IMPLICATIONS:

Work In Process (Inventory) = More Time

More Time = More Cost

More Time + More Cost = Lower ROI

PPM FRAMEWORK



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