# INTEGRATION OF PRODUCTION MANAGEMENT INTO SOFTWARE DEVELOPMENT & ACQUISITION PROCESSES

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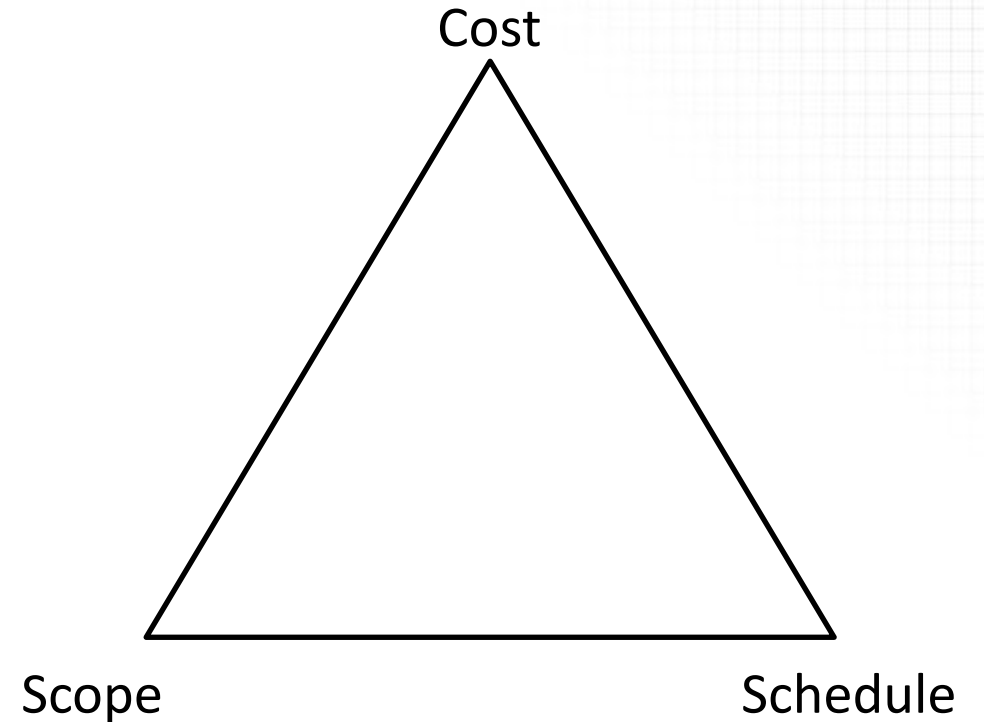*Department of Civil Engineering, Project Management*

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# Research Questions

- Do current agile projects within the DoD employ any of the production management levers to manage & control software delivery?
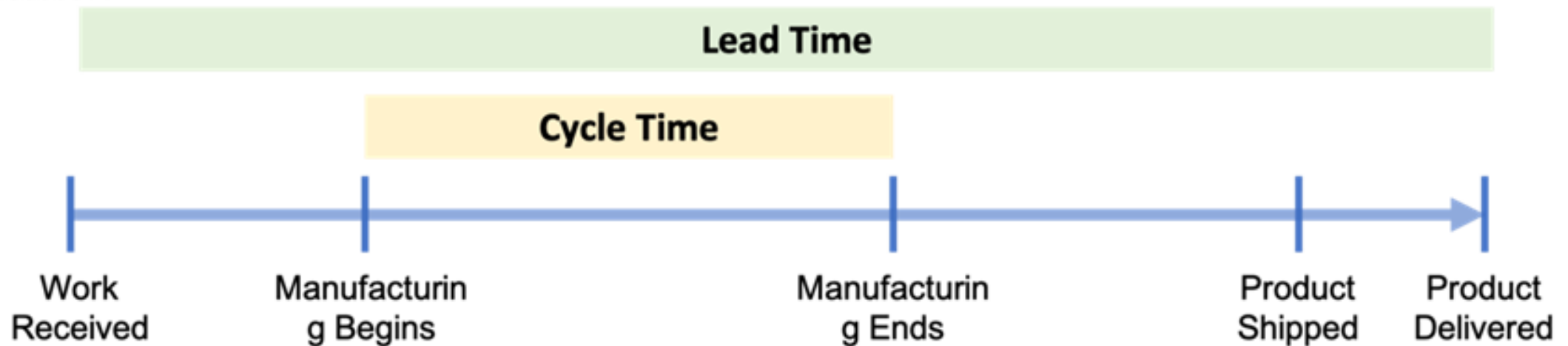
# Production Management Levers

- Product Design
- Process Design
- Capacity
- Work in Process (WIP)
- Variability

Cost

Scope

Schedule

# Little's Law & Flow

$$\text{Throughput} = \frac{\text{WIP}}{\text{Lead Time}}$$

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**Lead Time**

**Cycle Time**

Work Received — Manufacturing Begins — Manufacturing Ends — Product Shipped — Product Delivered

# Method & Approach

- Review of recommended agile metrics and identification of how they align to production management

- Review of publicly available data concerning self declared agile software projects within the DoD

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# Results & Next Steps

- All five levers are supported and recommended policy guides
- Application of the levers is still varied
- Agile in name only; waterfall processes persist
- Projects are still bound/ driven by cost, schedule, performance

- Next Step: Review of publicly available RFPs