MoreSteam.com

Core Process Pull:

Little's Law in Action

Dr. Lars Maaseidvaag

August 12, 2010

Agenda

- Welcome
- Introduction of MBB Webcast Series
  - Larry Goldman, MoreSteam.com
- Core Process Pull: Little's Law in Action
  - Dr. Lars Maaseidvaag, MoreSteam.com
- Open Discussion and Questions

MoreSteam.com – Company Background

- Founded 2000
- Over 250,000 Lean Six Sigma professionals trained
- Serving 45% of the Fortune 500
- First firm to offer the complete Black Belt curriculum online
- Courses reviewed and approved by ASQ
- Registered education provider of Project Management Institute (PMI)

Selected Customers:

Master Black Belt Program

- Offered in partnership with Fisher College of Business at The Ohio State University
- Employs a Blended Learning model with world-class instruction delivered in both the classroom and online
- Covers the MBB Body of Knowledge with topics ranging from advanced *DOE* to *Leading Change* to *Finance for MBBs*
- Go to http://www.moresteam.com/master-black-belt.cfm for more information about curriculum, prerequisites, and schedule

Core Process Pull: Little's Law in Action

Dr. Lars Maaseidvaag

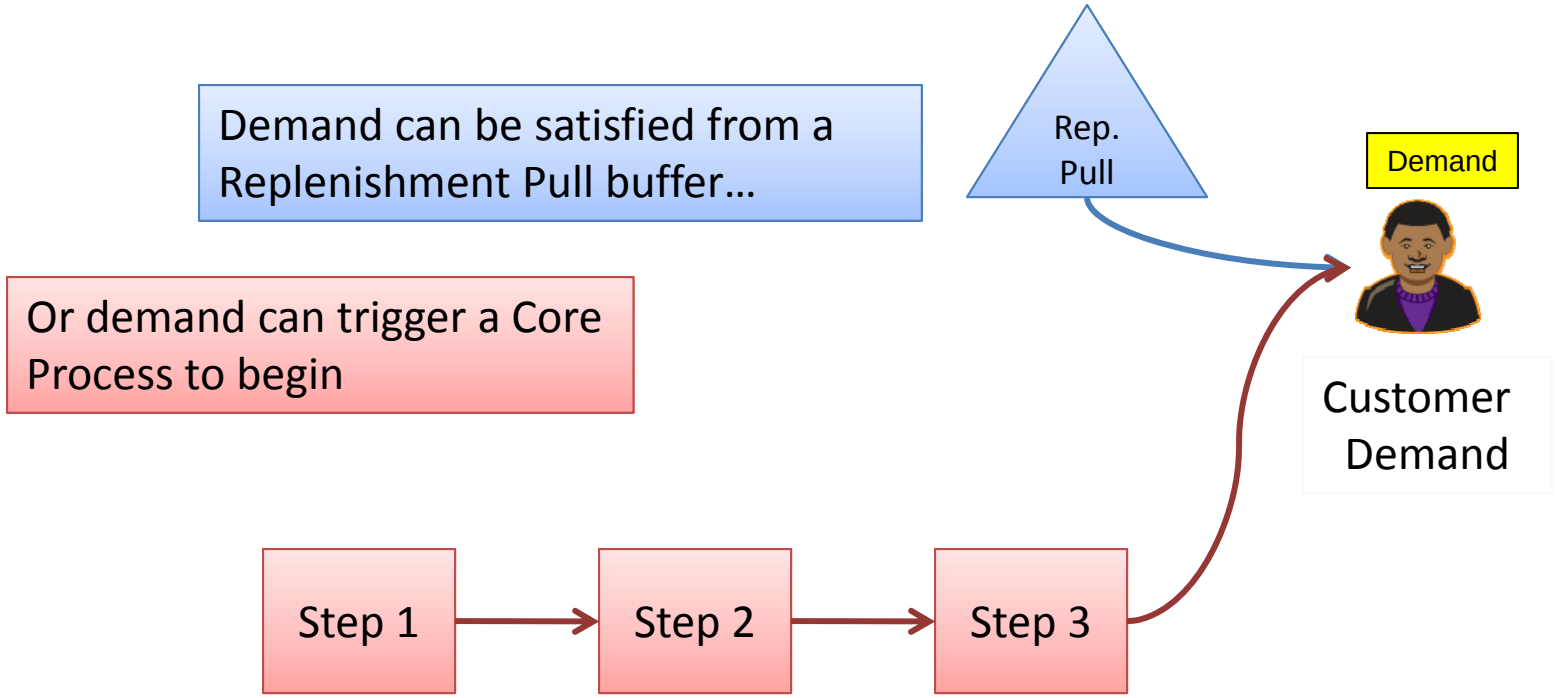
Senior Master Black Belt

- MoreSteam.com MBB Faculty - Integrates the learning of Lean tools and concepts with advanced process modeling methods
- Operations research and management consulting
- Curriculum Director, Accenture/George Group

Why Pull?

Demand can be satisfied from a Replenishment Pull buffer…

Or demand can trigger a Core Process to begin



Core Process vs. Replenishment Pull

Core Process Pull

- Focused on a Process
- Determines lead time
- Make to order
- Applicable everywhere
- Physical or electronic signals

Replenishment Pull

- Focused on a Part
- Lead time is an input
- Make to stock
- Primarily manufacturing
- Physical or electronic signals

Little's Law Brought to Life

Total lead time encompasses all aspects of the process – value added and waste. Is total lead time a target that is set? A customer demand that must be met?

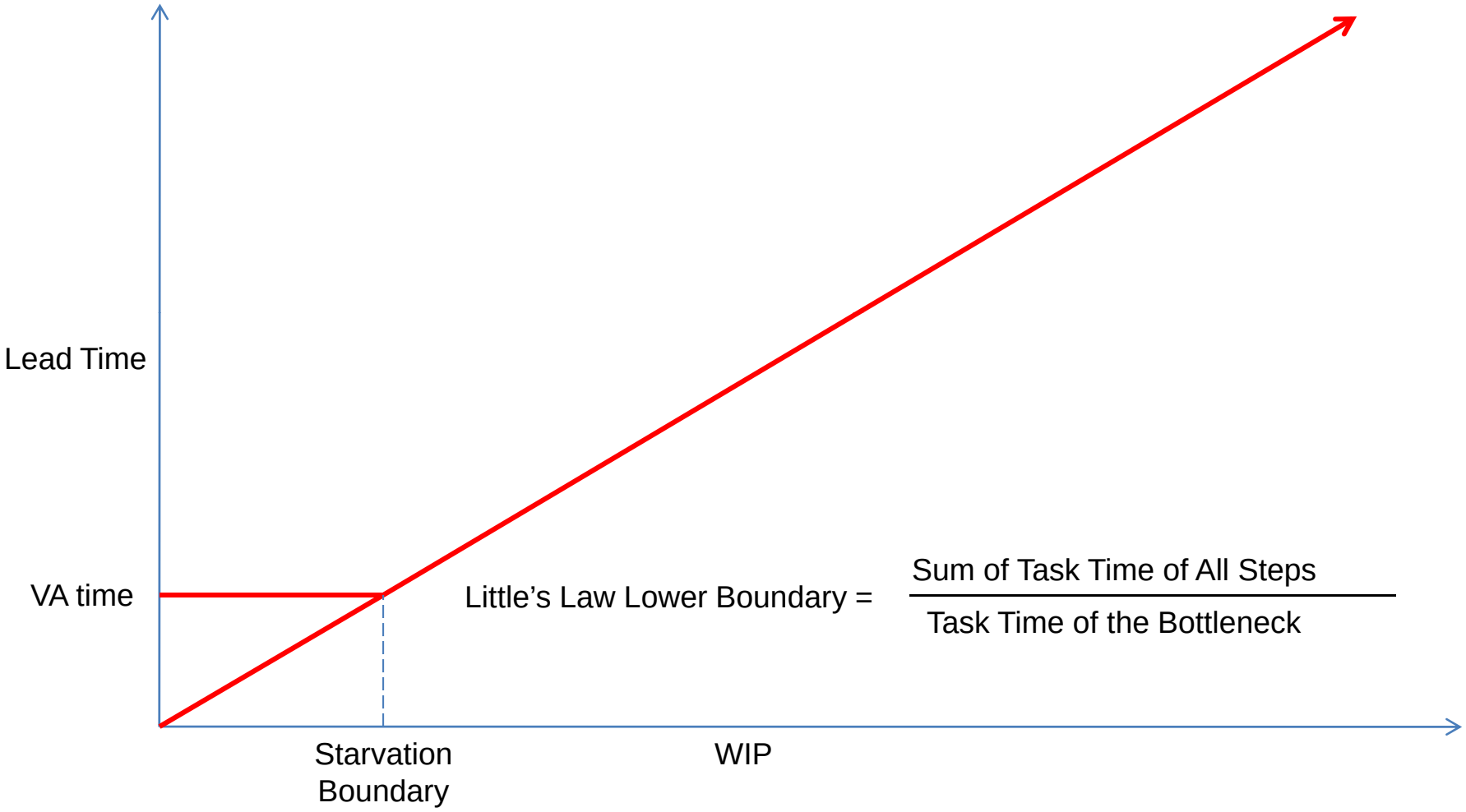
WIP is rarely managed directly, yet it directly impacts the Total Lead Time of the process, and can indirectly impact the Throughput of the process

$$\text{Total Lead Time} = \frac{\text{Work in Process}}{\text{Throughput}}$$

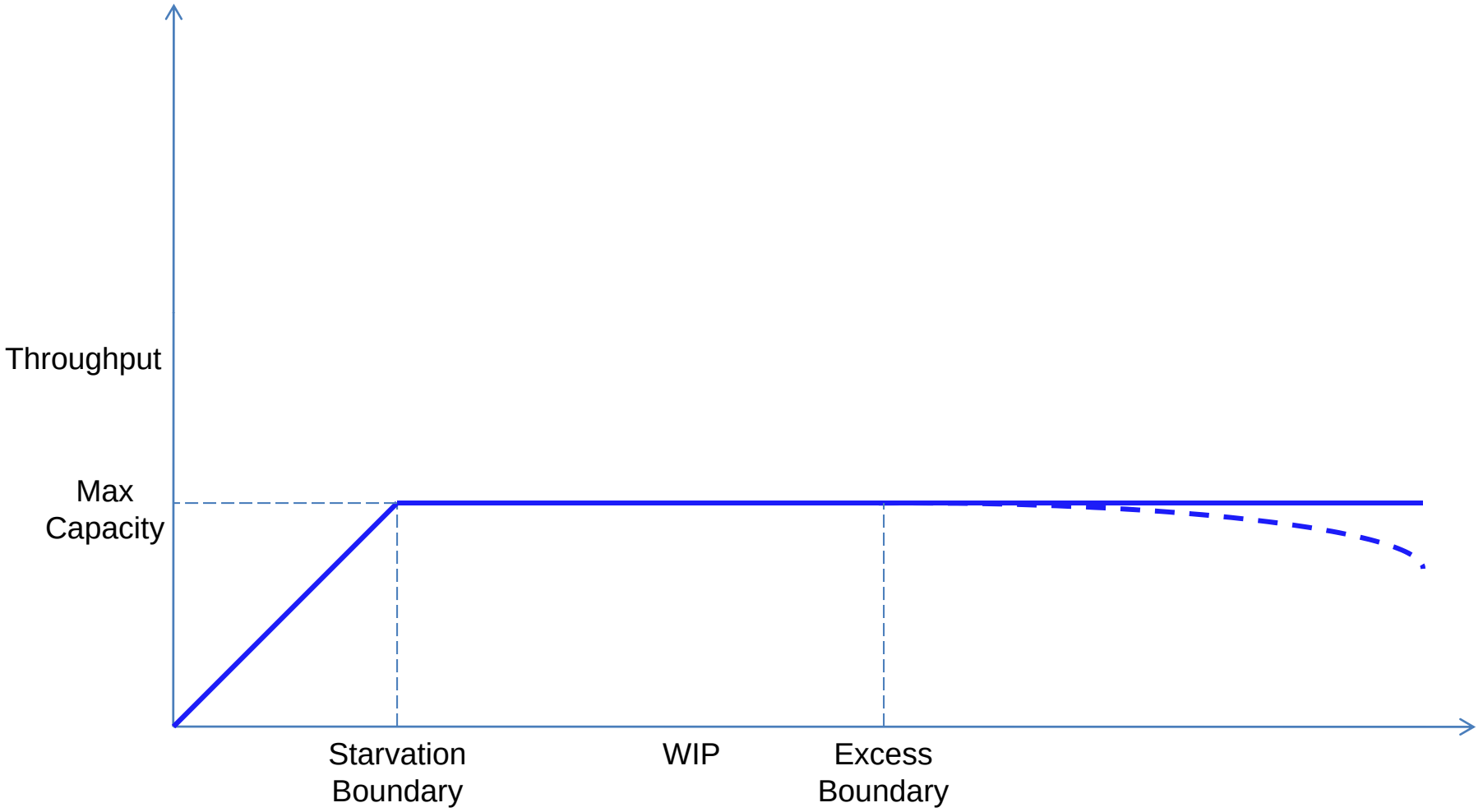
Core Process Pull is nothing more than a mechanism for controlling WIP, and therefore controlling Total Lead Time

Throughput is determined by the capacity of the bottleneck, which is affected by staffing and scheduling, and all of the other components of OEE

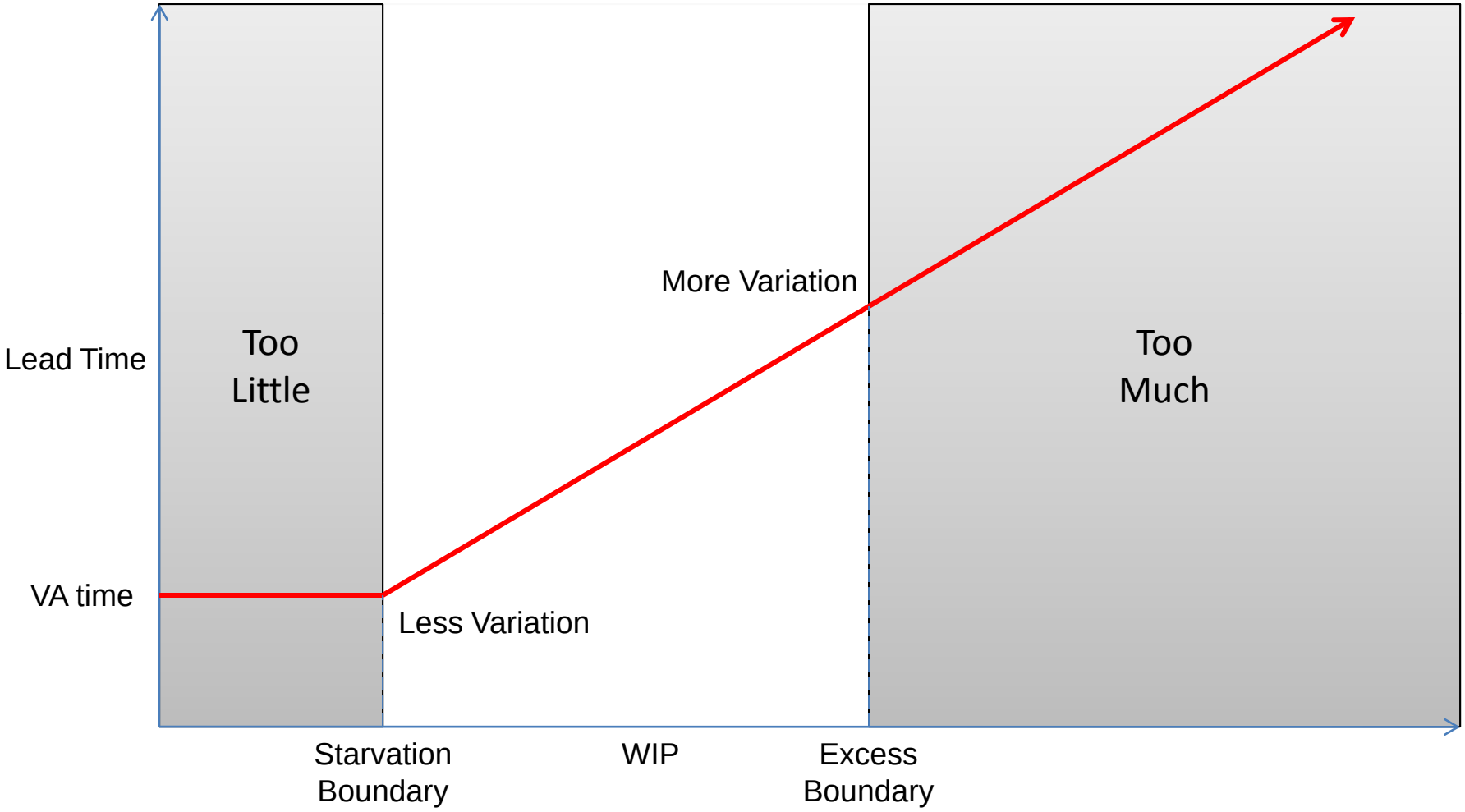
WIP vs. Lead Time



WIP vs. Throughput



Implementation Sizing

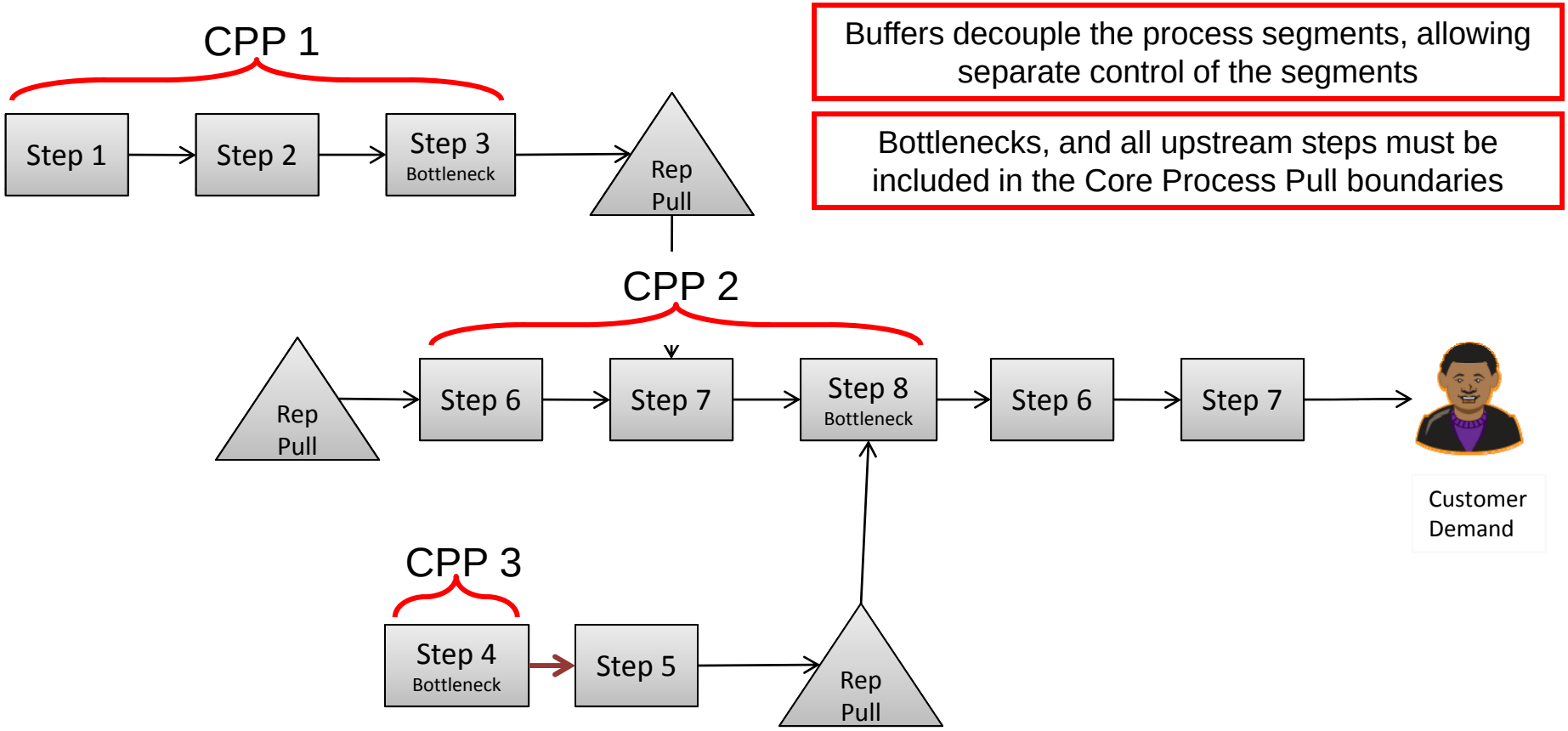


Implementation Scope

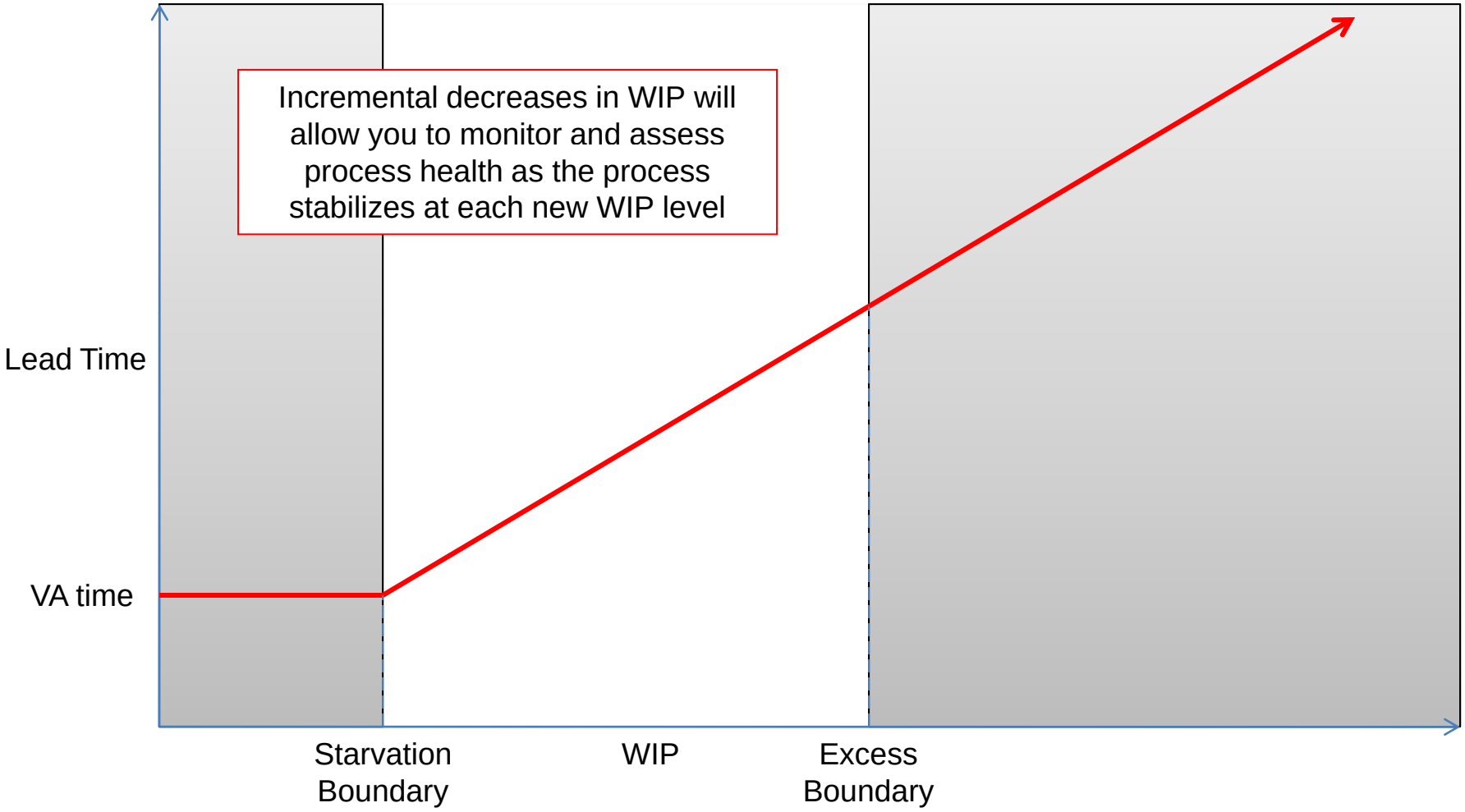
Core Process Pull system boundaries must cover all steps in a process from the bottleneck upstream to the nearest Replenishment Pull buffer

Buffers decouple the process segments, allowing separate control of the segments

Bottlenecks, and all upstream steps must be included in the Core Process Pull boundaries



Implementation Timing



Core Process Pull Summary

- Provides a simple system to gain control over a process and stabilize lead time
- Is well suited to both transactional and manufacturing environments
- Should be considered and implemented early in any continuous improvement project
- Is a key component of a Lean transformation

Thank you for joining us

Resource Links and Contacts

Questions? Comments? We'd love to hear from you.

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Additional Resources:

Archived presentation: http://www.moresteam.com/presentations/webcast-lean-pull-systems.cfm

Core Process Pull Worksheet: http://www.moresteam.com/presentations/download/cpp-worksheet.xls

Master Black Belt Program: http://www.moresteam.com/master-black-belt.cfm

Join Us for Another MBB Webcast

The Transactional Dilemma:
Understanding Regression with Attribute Data

Smita Skrivanek
Thursday, August 26th @ 11:00 AM (EDT)

http://www.moresteam.com/presentations/webcast-regression-analysis-attribute-data.cfm

Questions

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