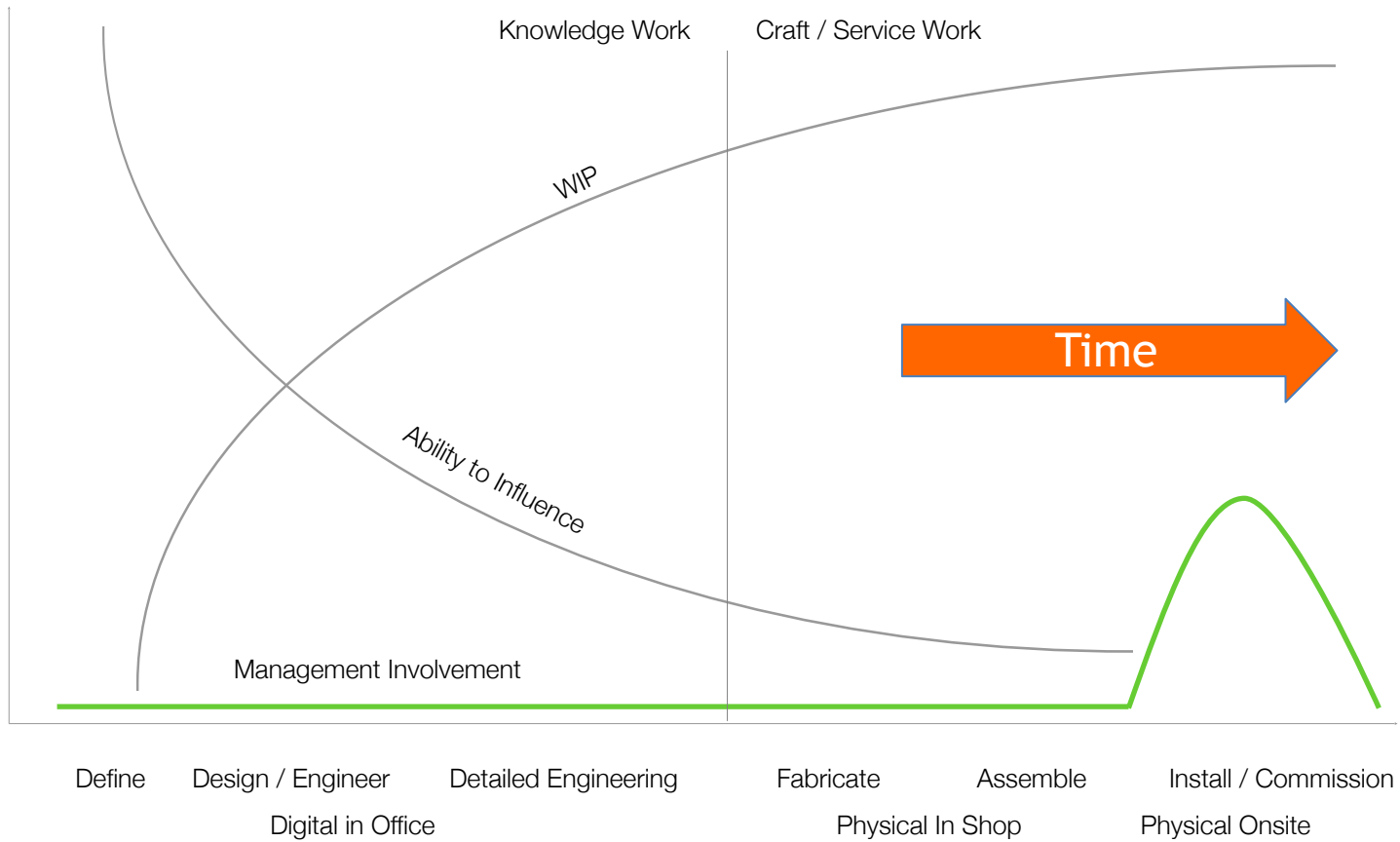


PROJECT PRODUCTION
INSTITUTE

Lead Time Compression
– Hidden Potential

Why is Lead Time Important?





Ability to Influence Curve adapted from Gluck & Foster HBR September 1975

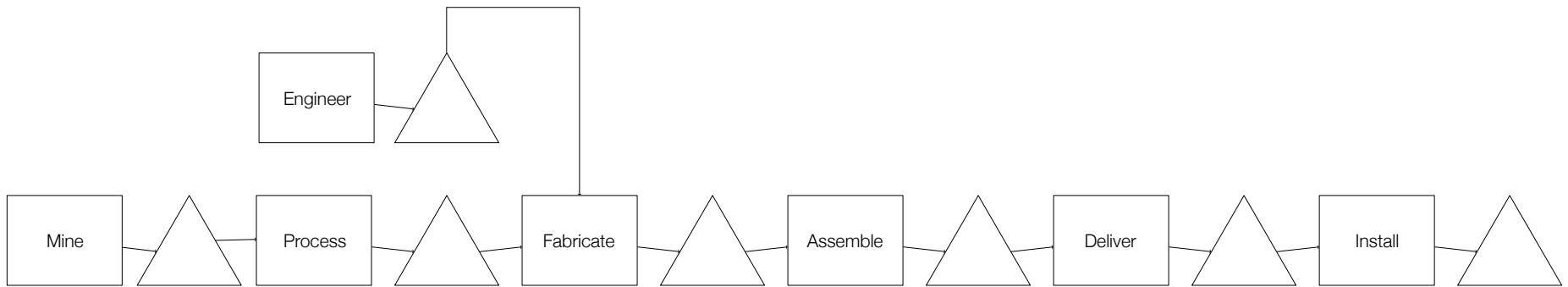
Long-term operability

Less optimal solution

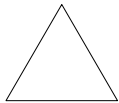
Rework or obsolescence of design or
fabricated components

What is Lead Time?

Lead Time vs Cycle Time



Operation



Inventory



Flow

Lead Time

Time allotted by a supplier for the production and delivery of the part or equipment ordered

Hopp and Spearman (2011) “Factory Physics”

Cycle Time

Average time from when a supplier authorizes work to be started on producing the equipment to when it exits production

Hopp and Spearman (2011) “Factory Physics”

Process Time

Time a part or piece of equipment spends actually being worked on in production until it is finished, eliminating any time spent in holding and inventory waiting to be worked on

Hopp and Spearman (2011) “Factory Physics”

Order Date

Promised Delivery Date



Lead Time



Cycle Time



Process Time





Made to Stock

In supplier's catalog and made to stock
Min / max inventory



Made to Order

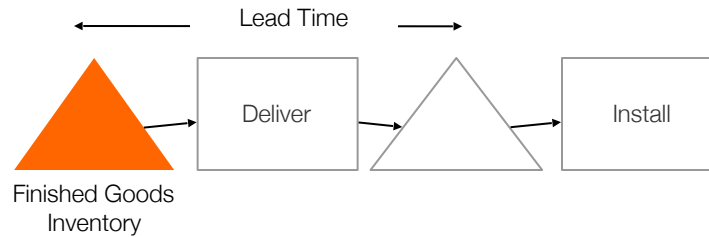
In supplier's catalog, but not made to stock
Signal the start of fabrication



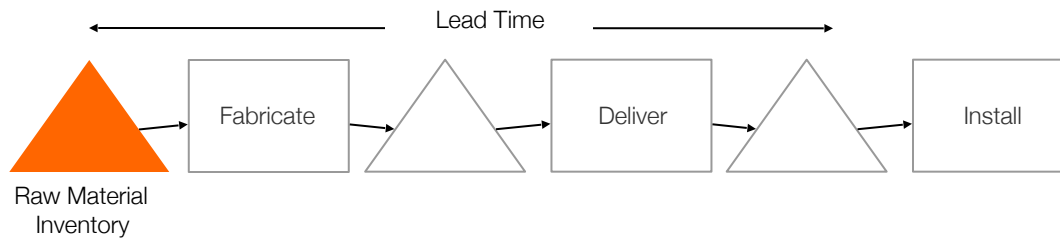
Engineered to Order

Unique items (not in any supplier's catalog)
Requires control of detailed engineering

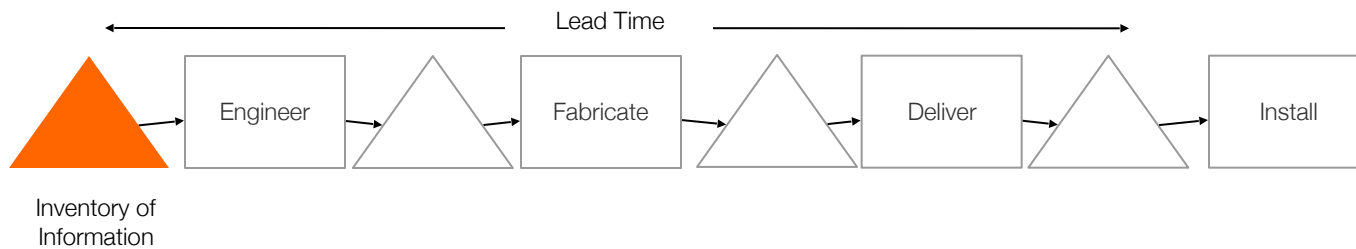
Three Types of Supply Flows



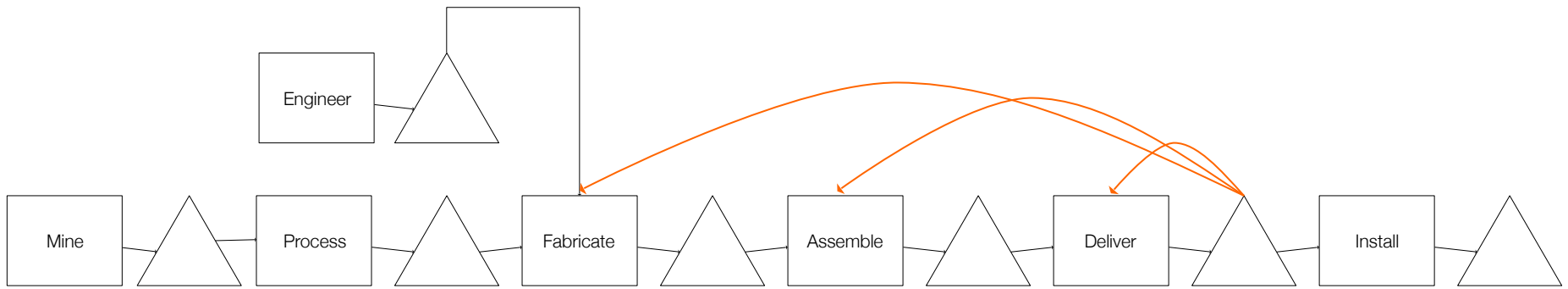
Made-to-Stock



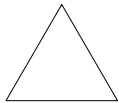
Made-to-Order



Engineered-to-Order



Operation



Inventory

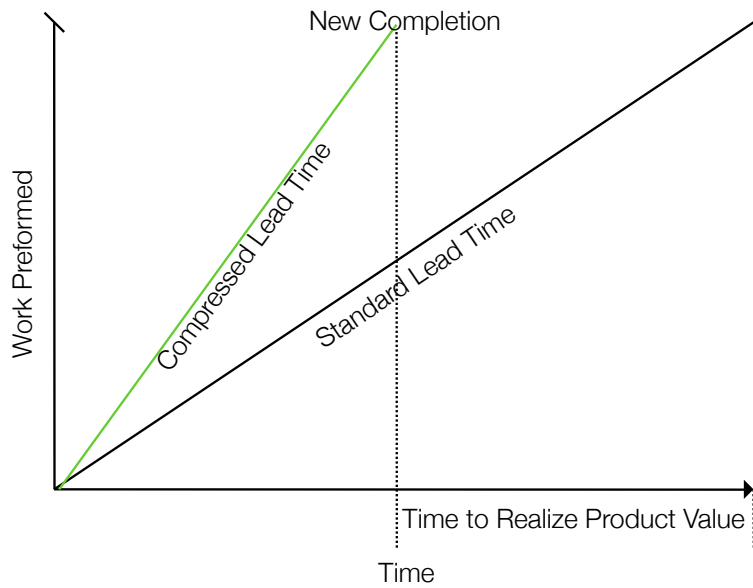


Flow

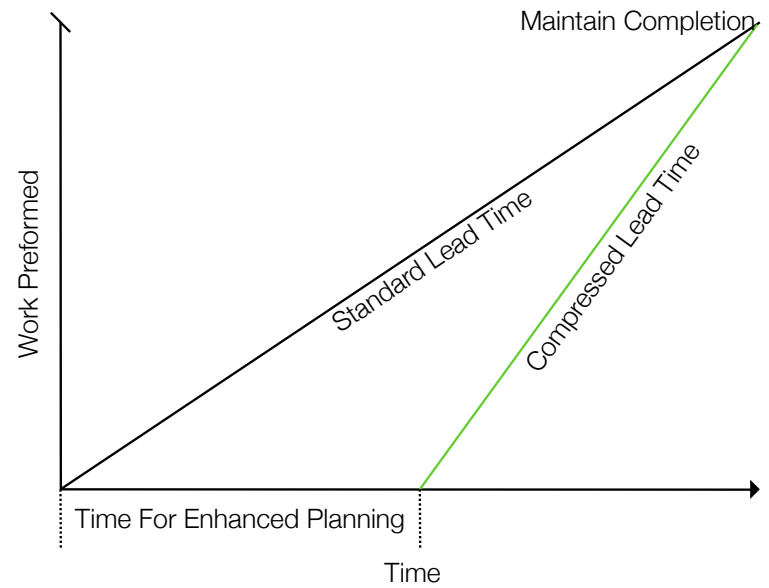
More time to develop appropriate solution

Reduced WIP & associated tied-up cash

Agility to adapt to change



Start Sooner Get Completed Sooner



Start Later Generate More Value Get Done at the Same Time

Take lead-time as given

VS

Affect lead-time