

### PROJECT PRODUCTION INSTITUTE

## **Project Supply Chain Optimization**

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## Gain an understanding of how others are benefiting from the optimization of project supply chains



## How to Unlock & Capture Value?



## Production System Design & Control



## Two case examples:

## Retail Infrastructure Program

## Technology Infrastructure Program



## Retail Infrastructure

## \$1.2 billion per year program

Deployment of stores for large retailer

Revenue constrained by deployment



"Our suppliers have become so embedded in how we work that they have actually lost the ability to innovate and create change"



- 1. Select critical supply flows
- 2. Plan visit to supplier / fabricator
- 3. Map current state
- 4. Analyze and identify opportunities
- 5. Implement actions



## Terrazzo Supply Chain

- Made-to-Stock / Made-to-Order
- \$18 m / year (supply & install)
- One installer (+ one fabricator)
- 119,000 m2 per year



# What percentage of the supplier's business Company represents:

Installer: +90%



















## Refrigeration System Supply Chain

- Made-to-Order / Engineered-to-Order
- \$80 m / year (supply & install)
- Two preferred suppliers (80%, 20%)



"We are investigating the use of natural refrigerants, which is giving us the opportunity to strategically re-evaluate our supply base, its costs and capabilities"



# What percentage of the supplier's business Company represents:

Supplier 1: 50%

Supplier 2: 41%









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#### CENTRAL PLANT





## Estimated about \$120 million of value to be unlocked and captured across the program supply chain



- 1. Select critical supply flows
- 2. Plan visit to supplier / fabricator
- 3. Map current state
- 4. Analyze and identify opportunities
- 5. Implement actions



Technology Infrastructure

\$0.8 billion / year program

Global deployment of data centers

Adjust to changing market needs

"Nimble to changing market needs is competitive advantage"



#### THE SUPPLIER PYRAMID







### **Electrical Skids**



### **Cooling Equipment**





- 1. Define business drivers
- 2. Engage stakeholders
- 3. Develop plan of action

- 1. Map production process (value chain)
- 2. Measure variability levels
- 3. Draw conclusions

- 1. Make effective control operational
- 2. Synchronize supply with site demand
- 3. Adjust to variability

- 1. Reduce detrimental variability
- 2. Increase throughput and reliability
- 3. Keep improving









DESIGN







DESIGN

CONTROL



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PARAMETER	BEFORE	AFTER	ACTION PLAN
Process Design (Number of Steps)	252	97	Minimize steps outside standard processes and explore unknown steps
Supply Reliability	0-38%	98%	Sustain reliability levels through control
Cycle Time (PO to Install)	65-220 days	Target - 71 days Actual - 49 days	Further reduce variability to reduce overall cycle time
Cost	100%	64%	Decrease time for onsite installation to further reduce cost





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