ScrimmageSIM & Stryker: Utilizing Simulations for Improved Supply Planning

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Dr. Bret Wagner, Committee Chair & Sarah Armstrong, Supply Planning Manager
Agenda

- Enterprise Simulation Planning
  - Benefits of ESP
  - The Four Applications
- ScrimmageSIM Applied
- Conclusions
Agenda

- **Enterprise Simulation Planning**
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How are we performing and how will we perform?
Enterprise Simulation Planning (ESP)

- Enables business to...
  - See performance under future demand
  - Evaluate potential alternate supply chain structures
  - Evaluate potential alternate supply chain policies
  - Reduce risk inherent to strategy changes
  - Encourage continuous improvement
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Benefits of ESP

- Providing a tool to a wide-spectrum of employees
- Reducing/eliminating consequences of testing in a live environment
- Flexibility in use
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The Four Applications

- **Network**
  - Structures and policies under which the supply chain operates

- **Demand**
  - Customer demand, stock that needs to be replenished or components that are scheduled for delivery
Baselining

- **Visualization**
  - See the structure of current supply chain and how the supply chain behaves

- **Communication**
  - Discussing current state with stakeholders
  - Agreement upon current state
Quantification

- Validation
  - Reducing risk of live environment consequences
- Cost Avoidance
  - Reduce risks of supply chain decisions gone bad
Forecasting

- S&OP/Capacity Planning
  - Resource limitations
- Sensitivity Analysis
  - Determine various operational strategies based on variation

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Diagram:
- Network
  - Current
  - Future
- Demand
  - Current
  - Future
Innovation

- **Strategic Planning**
  - New locations
  - Mergers

- **Gamification**
  - Encouraging Engagement

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ScrimmageSIM Applied

- Baselining
  - Master Data setup to actuals
- Quantification
  - What if’s for production
- Forecasting
  - Demand changes
- Innovation
  - What next?
Agenda

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Conclusions

- Discussed
  - ESP
  - Benefits
  - Applications
  - ScrimmageSIM

- Next Steps
  - Continue development in ScrimmageSIM
Thank you! Any Questions?