Optimizing Your Supply Chain with Advanced Analytics

Presented by:

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### Agenda

- Industry Pressures
- The Right Data
- Value of Historical Data Analytics
- How to use Predictive Analytics





## X = Industry Pressures

- Reduced ship time
- Optimize Labor / Equipment
- Reduce number of touches required
- Strive for continuous flow of material
- Access to Data for Reporting throughout Enterprise
- Cartonization
- Cost per case

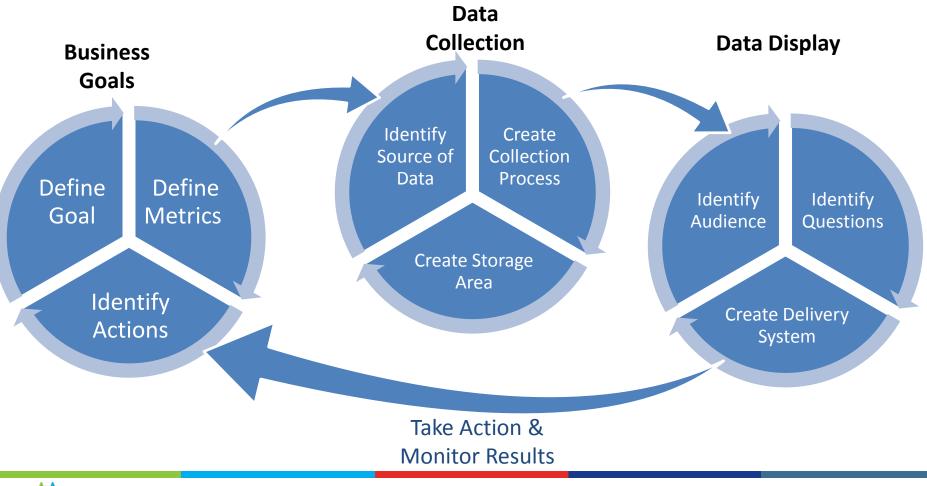




A diamond is just a piece of coal that did well under pressure



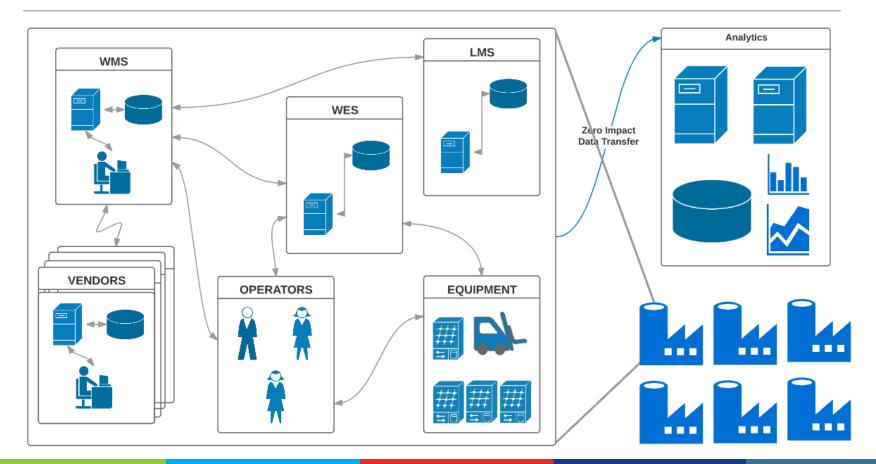
### X = "How to implement Analytics"







## X = "How to collect the data"

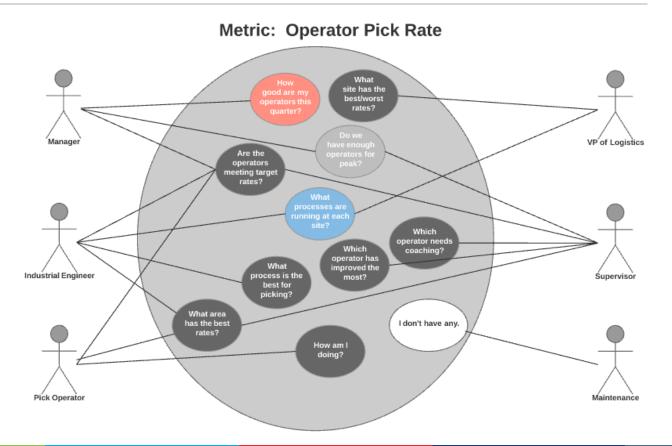






### X = "Who is the audience?"

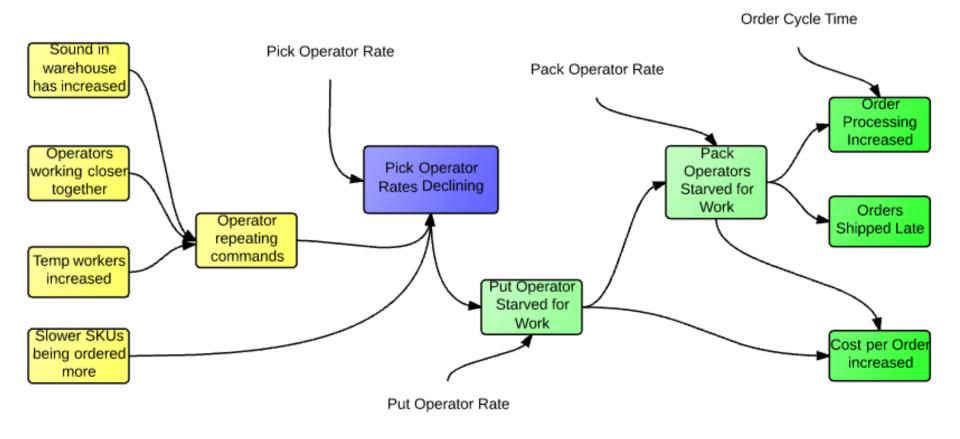
#### AUDIENCE OF ANALYTICS







### X = "Find the Cause(s)"







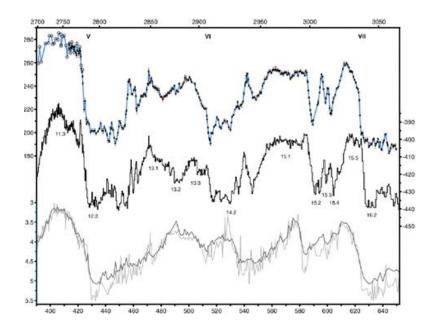
## **X** = "Proxies for Performance"

#### The Problem

- Top metric is desired but the data is not easily accessed.
- Middle and Bottom metric are easily accessed.

#### The Solution

• Use the 2nd metric as a proxy. When it is bad, the top metric is likely bad.

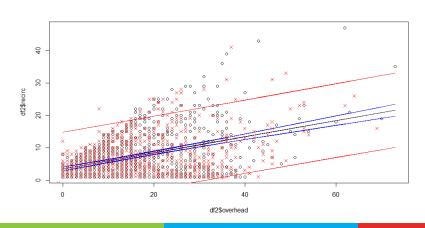


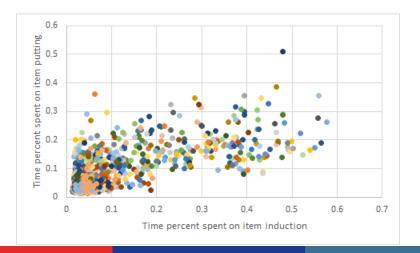




### X = "Areas to Investigate"

- Overall System Availability
- Track Operations (Equipment and People) identifying changes in performance
- Manage individual processes (Cycle Times)
- System Fault Trending









### X = "Breadth or Depth"

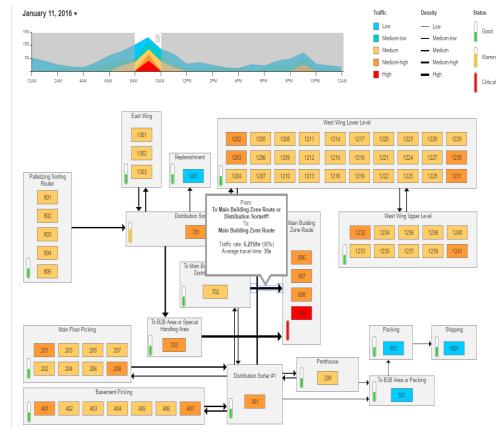
## Increase visibility breadth Increase insight depth Single Site Descriptive **Multiple Sites Predictive** Supply Chain Prescriptive



PROMAT

## X = "Bottlenecks"

- Machine Learning
- Build algorithms to analyze data streams
- Make recommendations
  to optimize operations
- Allow 'what-if' analysis with robust simulations
- Automatically change system behavior







## X = "Examples"

- Wave Analysis
  - When should I release each wave?
  - Are the number of orders in the wave the right size?
  - Is the wave optimizing my operators or equipment?
- Operator Analysis
  - How much more can I ship for each operator I add?
  - How confident am I of the number?
  - Are my operators impacted by equipment?





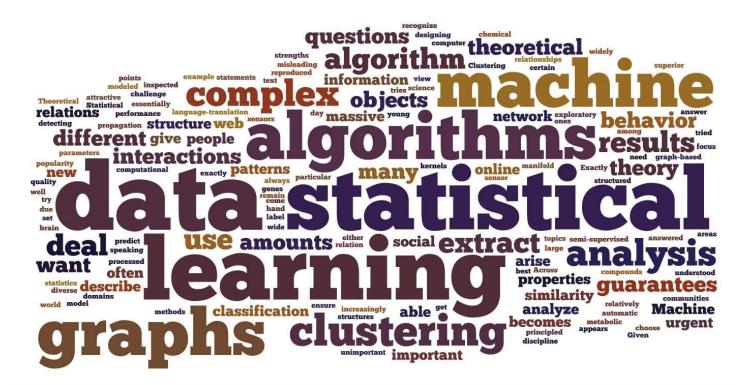
### Key Takeaways

- $\checkmark$  Always start with the goal in mind.
- ✓ Identify your key metrics, the required data, the processes involved.
- Start with small, actionable insights and ensure accuracy.
- ✓ Increase breadth and depth.
- ✓ Don't be afraid to think big!





#### **Questions and Answers**







## For More Information:

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