

Modern manufacturing increasingly relies on integrating, analyzing, and communicating data. On the shop floor, that means gathering intelligence from processes, people, machines, and systems to gain a complete view of your operations.

Armed with that insight, you can start to harness the power of descriptive, predictive, and prescriptive analytics to take your business to the next level.

But it all starts with a solid integration strategy aligning the operational and informational technology underpinning your business.



PRESCRIPTIVE

Prescriptive analytics help you decide what you should do to optimize your business.

- What mix of products should we buy to meet demand while taking advantage of bulk discounts?
- What will happen to profits if we increase prices? Decrease prices?
- What will happen to our sales if we add an additional salesman to a specific territory?



PREDICTIVE

Predictive analytics help you understand what is likely to happen.

- How many parts should I order to meet next month's demand?
- When is my equipment likely to go down?
- How should I schedule future maintenance?
- How many employees will we need for service calls next quarter?



DESCRIPTIVE

Descriptive analytics help you understand what has happened.

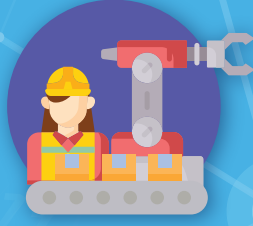
- What is my inventory turnover over the past year?
- What is my percentage reduction in machine downtime over the past two years?
- What is my order to shipment time over the past six months?
- What are my year to date sales compared to last year?

KEY DATA COMPONENTS



PROCESS

- ✓ Procurement
- ✓ Production
- ✓ Inventory
- ✓ Shipping & Logistics
- ✓ Returns
- ✓ Maintenance, Repair, and Operations [MRO]



PEOPLE & MACHINES

- ✓ Production Workers
- ✓ Managers/Foremen
- ✓ Inventory Managers
- ✓ Robots & Cobots
- ✓ IoT-Enabled Equipment



SYSTEMS

- ✓ Enterprise Resource Planning [ERP]
- ✓ Manufacturing Execution Systems
- ✓ Product and Process Lifecycle Management [PPLM]
- ✓ Computerized Maintenance Management Systems [CMMS]



OPERATIONAL TECHNOLOGY

INFORMATION TECHNOLOGY