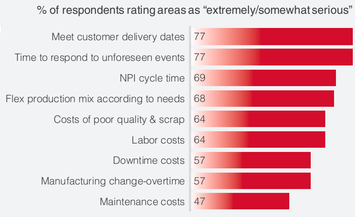
Operational Efficiency and Quality in Industrial Application

Overall Landscape

High demand in production is forcing automation players to deliver maximum uptime, all the time while maintaining a high level of quality.

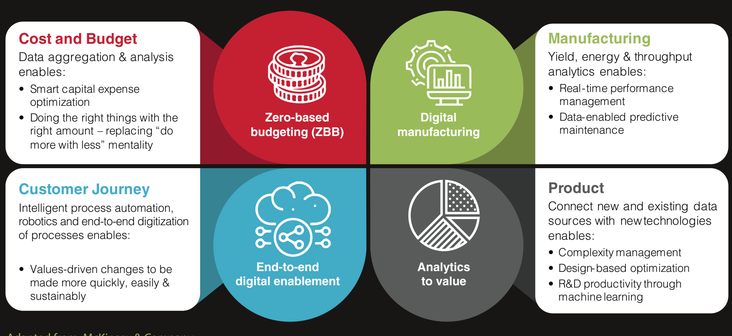
How to Tackle Operational Issues to Maximize Efficiencies and Competitiveness

- Inefficient processes and wasteful operations put a drain on the bottom line
  - Workarounds
  - Rework
  - Inefficient changeover procedures
- Some experts put "hidden factory" losses at as much as 40% of total company effort



Source: SCM World survey, June 2015

Benefits of Optimum Operational Efficiencies



Adapted from: McKinsey & Company

Best Practices

Connect Operators to Organizational Goals with Key Performance Indicators

Experts agree that changing from a reactive to proactive culture is challenging, but achievable. Operations that monitor and reward operator behaviors aligned with lean goals are more successful, sooner.

Count & Reject Ratio
Many companies will compare individual worker and shift output to invoke a competitive spirit among employees.

Takt Time
Takt time is the amount of time required for the completion of a task or the cycle time of a specific operation.

Target
Display target values for output, rate, takt time and quality. This KPI helps motivate employees to meet specific performance targets.

Downtime
Whether the result of a breakdown or simply a changeover, down-time is considered one of the most important KPI metrics to track.

OEE
OEE is a metric that multiplies availability by performance and quality to determine utilization. The higher the number, the more efficient the operation.

Lower the Total Cost of Deployment and Ownership

- Gain insight into what equipment is doing anytime, anywhere, any way while also reducing development time with point-and-click simplicity
- Red Lion Crimson 3.x-enabled products can collect data from virtually any source
- Simultaneous protocol conversion simplifies networks by passing data to almost any device without external protocol converters

Harness the Value of Industrial Information

Trend Viewer
- Deliver operational insights directly to the plant floor
- Monitor productivity from anywhere
- Display trends in real time

Data Logging
- Collect statistics on any Crimson data tag and deliver to upstream systems for reporting
- Address regulatory requirements
- Enhance troubleshooting and improve uptime

SQL Sync & Queries
- Sync data to system servers for longterm storage
- Simplify batch and recipe management to ensure repeatable quality

IMPROVE PERFORMANCE & DRIVE PRODUCTIVITY