



RESULTS AT A GLANCE

\$46.9 MILLION

Annual pretax earnings
improvements

79% to 94%

Overall Asset Utilization

17%

Productivity Improvement

42% to 77%

Preventative Maintenance
Workorders

40% to 6%

Decrease in P1's

21%

Yield Improvement

Operational Excellence: Taking Productivity, Reliability and Asset Utilization to the Next Level at a Large Multi-Site Chemical Operation



Situation

- The company was under extreme pressure to improve operations to create additional capacity without capital, improve productivity and EBIDTA
- New leadership recognized the need for operational efficiency and reliability improvements to improve plant operating performance
- Speed and agility was needed to accelerate change
- Sustaining the gains was a top priority, and the goal was to engage the entire organization in the improvement activities

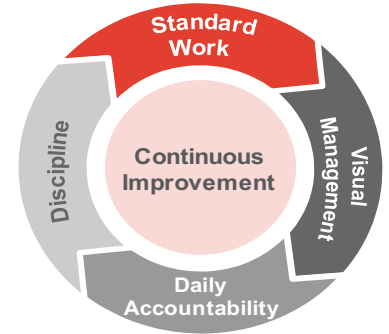
Argo's Solution & Approach

- Argo leveraged our Best Run Chemical Operations Playbook and benchmarked the client against best practices to create a roadmap and implementation plan to accelerate change and performance improvement
- New Operating Models and Best Practices from Argo's Best Run Chemical Operations Playbook were deployed to improve processes and systems, and build a culture of continuous improvement
- Argo's Operational Excellence Framework was used as the yardstick to prioritize and implement improvement initiatives

Major Initiatives implemented:

- Performance Management System to drive ownership and create an accountability dialogue to improve operations (KPI's/Cadence/Visualization)

- Reliability Effectiveness Program to identify and mitigate bad actors, develop preventative treatments for critical equipment and shift to a proactive and predictive culture
- Maintenance Productivity Program focused on best practice planning, scheduling, good work orders to improve right first time, eliminate rework and maximize time on tools
- Overall Asset Utilization improvement program mitigate production losses
- Operational Discipline with clear roles and responsibilities and Operator Care model to eliminate defects at the source
- Training development and coaching leaders and employees to take-action and achieve lasting change
- Rigorous Continuous Improvement Program to engage the site in performance improvement



Best Run Maturity Model – Playbook Example

OPERATIONAL EXCELLENCE FRAMEWORK

“Best Practice Global Processes - standardized and leveraged across Sites

Reference Model & Playbook to drive Best Practices & Roadmap to Top Quartile		
Governance & Sustainment	Performance Management System (KPI Alignment, Visualization, Cadence, SIC & CI)	Automation & Digitization
	Revenue & Margin Optimization (OAU, OEE, Variability Reduction, FPQ, Free Capacity)	
	Operational Discipline (RACI's, Standard Operating Procedures and Processes, Op Care)	
	Quality Management System (ISO, Policy, Program, Procedures, Audit & Feedback Loop)	
	Reliability Effectiveness (Critical Equipment, Bad Actor Program, RCFA, P/P Strategy, Pervasive Sensing)	
	Base Maintenance Efficiency (WO, Planning, Scheduling, Craft Skills, PSM, Rework Reduction, Wrench Time)	
	Supply Chain Productivity (Network Planning, Logistics, Movements, Loading & Warehousing)	
	Turnaround & Capital Planning and Execution Efficiency	
	Energy, Utilities & Waste Streams Optimization	
	Contractor Productivity (Optimization, Barrier Removal & Contracting Process)	
	Spend Optimization Program (Headcount Rationalization, OT, Plant Materials & Rentals)	
	Right to Operate (Health, Safety & Environmental)	
	Core Values & People (Culture, Behaviors & Rituals)	