THE PRODUCTIVITY TEAM, LLC
Engineering Services

TPT Supplier Capacity & OEE Playbook™

Manufacturers are entering a new phase where incremental improvement no longer meets the demands of the mission.

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TPT. Always Vigilant.

Foreword

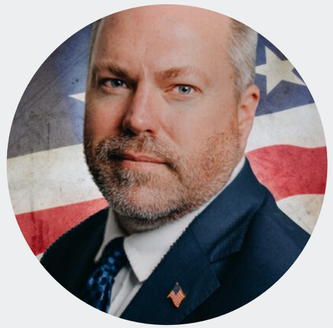
In today’s rapidly evolving manufacturing environment, organizations are under increasing pressure to improve quality, maximize productivity, and build more resilient operations. Two critical areas driving operational excellence are supplier quality management and Overall Equipment Effectiveness (OEE). By strengthening supplier performance and optimizing equipment utilization, companies can reduce disruptions, improve efficiency, and achieve more consistent production outcomes.

A strong supplier quality strategy is essential for ensuring that materials, components, and processes meet required standards throughout the supply chain. Through supplier assessments, process improvements, quality audits, and proactive problem-solving, organizations can identify risks early, improve supplier capability, and maintain reliable production performance. Building stronger supplier partnerships helps minimize defects, reduce rework, and support successful product launches.

Equally important is the ability to measure and improve equipment effectiveness on the production floor. OEE provides valuable insight into equipment availability, performance, and quality by identifying opportunities to reduce downtime, eliminate inefficiencies, and optimize manufacturing processes. By leveraging data-driven improvements and continuous improvement methodologies, organizations can increase throughput, improve resource utilization, and drive measurable cost savings.

As manufacturing operations continue to evolve, integrating supplier quality initiatives with OEE improvements creates a foundation for long-term success. Organizations that prioritize quality at every stage—from supplier processes to final production—are better positioned to enhance efficiency, reduce risk, and maintain a competitive advantage in an increasingly demanding market.

In conclusion, supplier quality and OEE are key drivers of operational excellence. By focusing on stronger supplier performance, improved equipment reliability, and continuous improvement, companies can achieve more efficient, resilient, and high-performing manufacturing operations.

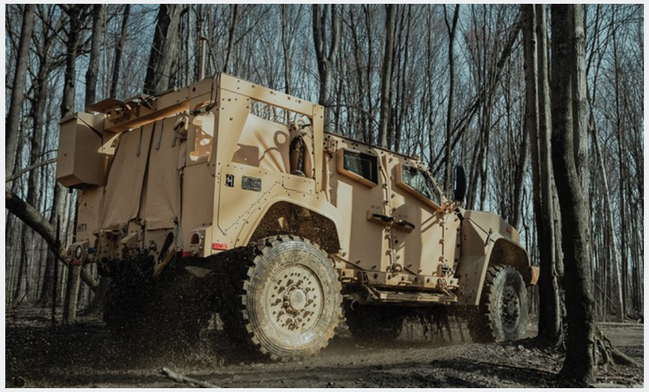


David Kunselman

CEO, The Productivity Team

Background

- Challenge is improving Supplier Performance and increasing overall throughput.
- OEMs have quickly realized that they may be able to increase production rates but are constrained by their supply base.
- A new approach is needed to ensure the entire supply chain can support a volume uplift and sustain.
- OEMs need to be able to rapidly assess supply chain capacity constraints and then work with suppliers to break those constraints.
- TPT has developed an approach that addresses this key issue, our OEE analysis tool rapidly qualifies and quantifies the supplier OEE constraints.
- Understanding a suppliers DYNAMIC OEE (OEE net of losses) is critical data that can be used to develop both short- and long-term action plans.
- Without the right data, suppliers often chase the wrong issue and don't solve the root issues impacting throughput.
  - In some cases, they create even more risk by not understanding the impact of the actions they choose.
- Without the correct approach OEMs waste valuable time and energy chasing symptoms and not root cause.



TPT has extensive experience in OEE analysis and improving supply chain throughput and helping OEMs improve overall supply chain performance that is sustainable.

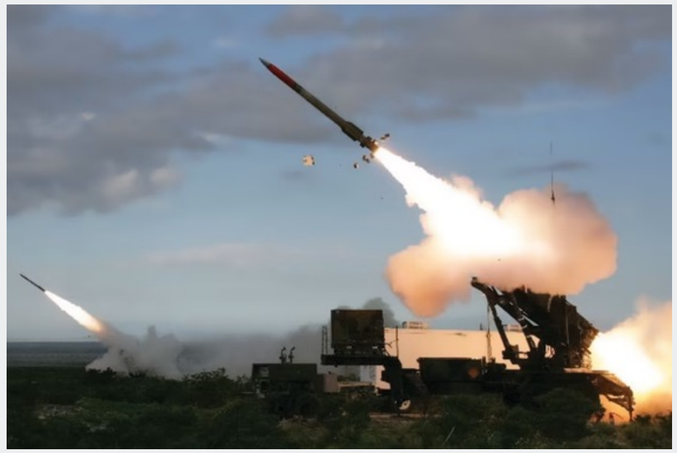
TPT Methodology

- Our OEE toolbox rapidly maps a supplier's value stream and identifies constraints.
  - Identifies the processes constraining throughput and enables the team to quantify and qualify the impact and risk.
  - Provides a roadmap to improving the overall throughput of the value stream that results in higher throughput.

- Key is understanding where the constraint is and what is causing the constraint.
  - The OEE toolbox allows us to create "what if" analysis and understand the impact of the action plan prior to implementation.
  - This allows the team to develop an OEE Improvement Roadmap for the supplier.
  - This allows the team to make intelligent choices in terms of speed of implementation and costs.
  - TPT will gather data to understand the granular OEE performance metrics at each workstation and systematically breaking the constraints.

- This tool can be used to train the supplier on how to evaluate their true dynamic capacity and compare it to their installed capacity data.

- This process is a critical for risk management for both the OEM and the supplier team during launches and volume uplifts.



TPT has developed a robust approach to OEE analysis and improvement process.

Phase 1:
Deep-Dive Risk Analysis

- Lead Team Engages- meets with supplier plant leadership
- Risk Analysis
- Map key processes impacting customer plants
- Quick OEE analysis, define the constraints
- Quick hit improvements to mitigate impact on customer
- OEE roadmap completed- Prioritize action plan
- Report out to plant leadership and customer team

Phase 2:
Implement Improvements

- Team drives the OEE plan, focusing on highest impact action items
- Team evaluates suppliers' capabilities
- Team leads the improvement process if supplier can't or wont
- Detailed PDCA developed to steer the team and track progress
- Measure improvement over Day 1
- Standard reporting package developed- report out to supplier leadership and customer team

Phase 3:
Transition to Supplier

- Transition plan to supplier team is developed
- Map the transition plan and roles and responsibilities
- Train the supplier on how to measure and monitor key enablers and data points- Short term interval analysis
- Communicate the transition plan and timing to both supplier and customer team
- Transition reporting and process compliance plan to supplier
- Update the TGR-TGW-LL report
- Report out to suppler leadership and customer team

Phase 4:
Transition and Exit

- Team transitions all tasks to supplier team, provides a monitoring plan for the site
- Update supplier OEE and capacity data
- PDCA handoff and review of all open items
- Summary of project lessons learned shared with teams
- End of action report to customer team
- Site monitoring continues with phased exit. Supported remotely with escalation protocols defined

Summary

Supply Chain execution is critical to your success; without a robust supply chain you will not meet your goals.

TPT has the capability and the resources to help you address this challenge.

We have a proven set of tools that enable rapid assessments, combined with our OEE toolbox we can quantify and qualify the risks. Then develop countermeasures that mitigate the risks and provide long-term corrective actions that sustain the improvement.

Our methodology has been used in over 500 supplier engagements across a wide variety of industries.

We use proven industrial engineering and lean principles and work with the supplier and their team. Ideally leaving behind a much more robust process and a supplier with the tools and training to continue to drive improvements well after the initial engagement.

TPT can scale rapidly to engage multiple suppliers simultaneously and have proven methods that help triage the overall supply chain capacity analysis plan.

We are ready and able to help you drive this critical mission.

Contacts

David Kunselman
CEO
dkunselman@productivityteam.com
248-535-3353

Paul Fontaine
Director of Supply Chain
pfontaine@productivityteam.com
248-881-0844

Wendy Serra
CMO
wserra@productivityteam.com
586-596-6653

productivityteam.com