

New Product Ramp Up

- 17% uplift on EBIT
- 28% reduction in accidents
- 61% reduction in overtime

The Background

Project7 [P7] worked with a global holding company and a prominent Automotive Tier 1 supplier for a premium brand OEM. The organisation recently introduced a new front suspension sub-frame on a highly-automated line, which also included the introduction of brand new technologies. As such, the company committed to a ramp-up schedule with the OEM in order to meet increased demands.

Project7 were engaged in order to help them achieve their newly-raised production goals and raise productivity and efficiency on the shop floor.

"Project7 demonstrated their capability by taking full accountability for the turnaround of a struggling facility, including the daily management of the customer expectations. The approach was professional, tense and assertive, delivering demonstrated performance impacts on the product line and the bottom line. Their ability to move at pace was outstanding."

VPGM EMEA

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Challenges

Before the project, the client had struggled to keep up with the ramp-up schedule, which negatively impacted their relationship with the OEM. The OEM implemented weekly governance to drive improvement and confirmation due to the delayed production.

The production line operators, supervisors, engineers and maintenance members were inexperienced with the new product and technologies, and lacked the problem-solving ability needed to recover the complex situation. The company, in addition to not meeting the ramp-up commitment, was experiencing an increase in Health & Safety issues (namely an increase in accidents and decrease in reporting of near-misses), increased scrap, increased headcount (due to quality inspection and rework), and a negative EBIT impact. There were no maintenance regimes in place to support built-in Quality and Flow, and no cycle time or managed buffer controls to enable flow.

The client relationship deterioration put the future product placement within the plant at risk, and risked the withdrawal of the OEM accreditation altogether, blocking them from future business with the OEM.

The current state needed to be understood quickly in order to establish data that would provide information to support decision-making, defining priorities by highest impact and shortest lead time, agreeing actions & responsibilities and scheduling of production windows to conduct the experiments. Contrary to the incumbent mindset, the need to stop production when volume was not being achieved was a significant step in order to find and solve the problems causing the low output.

Run at Rate schedules were required to enable controlled implementation of actions, and to tangibly measure the impact of these actions against a suite of evolving performance KPIs.

Dedicated teams needed to be established from the existing structure and governed through short interval control performance dialogues. The current state needed to be visualised in order to be understood, and measured in order to be controlled.

The top of the page features a photograph of a vehicle's undercarriage, showing the suspension, drivetrain, and exhaust systems. The image is in a warm, golden-brown color palette. The word "Solutions" is overlaid in large, white, sans-serif font across the center of the image.

Solutions

P7 provided an interim Plant Manager, responsible for the overall plant performance, customer relationship and EBIT. The interim Plant Manager was also supported by two P7 Performance Improvement Specialists:

- **Production Specialist** – Experienced in NPI and Lean Principles, Systems and Tools; the Production Specialist was also responsible for the coaching of the line supervision.
- **Maintenance & Engineering Specialist** – Experienced in line design, installation and ramp-up, and qualified in Planned Maintenance and TPM. The Maintenance & Engineering Specialist had the technical ability to support Problem Root-cause identification and resolution. They were also responsible for coaching the line Maintenance and Engineering personnel.

The objectives were split into four key areas during the initial phases of the project:

Divide, Control & Conquer [Week 1] Aims:

- To establish a dedicated team of Production, Maintenance and Engineering personnel
- To design and implement temporary visual performance centres that are aligned to process flow
- To create KPIs to measure the current state, develop trends and identify priorities
- To commence short interval control review with the full team to drive containment actions, and countermeasures once the root-cause has been established

Create the Tension [Week 2] Aims:

- To calculate the improvement glide-path for each KPI and roll up into the overall JPH commitment to the OEM
- To encourage active customer engagement through regular Go-Look-See in order to demonstrate the actions and results, creative positive tension through the SIC review and customer presence

Run at Rate [Weeks 3 - 11] Aims:

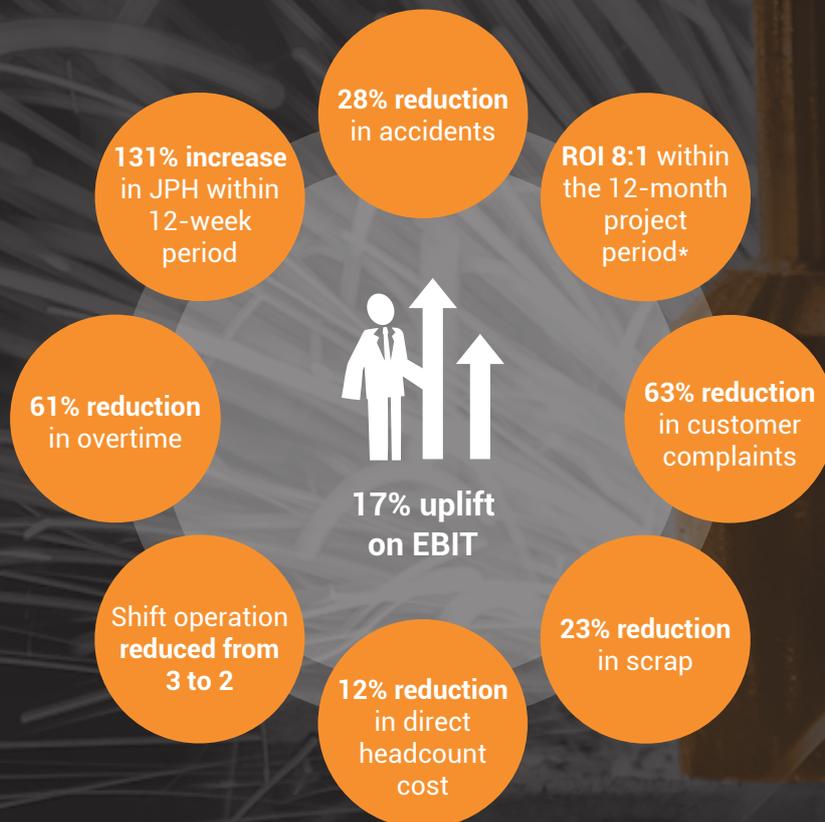
- To schedule production stoppages to enable controlled line intervention
- To make the changes, driven by disruption analysis, and to test the containment and/or solutions and measure the impact using a SIC review and KPIs
- To repeat the cycles, increasing intervention time initially until the quality and volume increase to a sustainable level

Process Re-Engineering [Throughout Project Duration]

- Hour-to-hour controls [OEE management]
- Restructuring the Production and Maintenance
- The Line Performance Management Centre [the local team's daily performance scrum dialogues]
- The Plant Performance Management Centre [Management & Supervision governance]
- Planned Maintenance regimes, including Line Patrol and Maintenance Satellites
- Operator Standardised work, including HSE
- Automation Yamazumi regarding motion analysis for waste in movement to support cycle time improvement
- Managed Buffer controls, to enable flow and bottleneck management
- The escalation procedure
- Digital Andon Board [stop-call-wait principle]
- Technical modifications to the line including a vision system [Error Proofing]

Impact on Performance

As a result of support from P7, the plant achieved the revised delivery commitments to the customer and maintained the accreditation, as well as being awarded future business. The EBIT was recovered and improved upon.



* Not accounting for increased capacity and future business awards