



Case Study

Quality and operational management system for A-TEC, Norway



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Client: OIH

Introduction

A-TEC, a leading silencer manufacturer for 25 years, faced challenges in their operations and manufacturing processes, impacting product quality and throughput. A shareholder request and customer audit triggered the need for improvements, leading to the implementation of ISO 9001 and other operational enhancements.



Objectives

Objectives were defined across two phases.



Project Overview

Phase 1

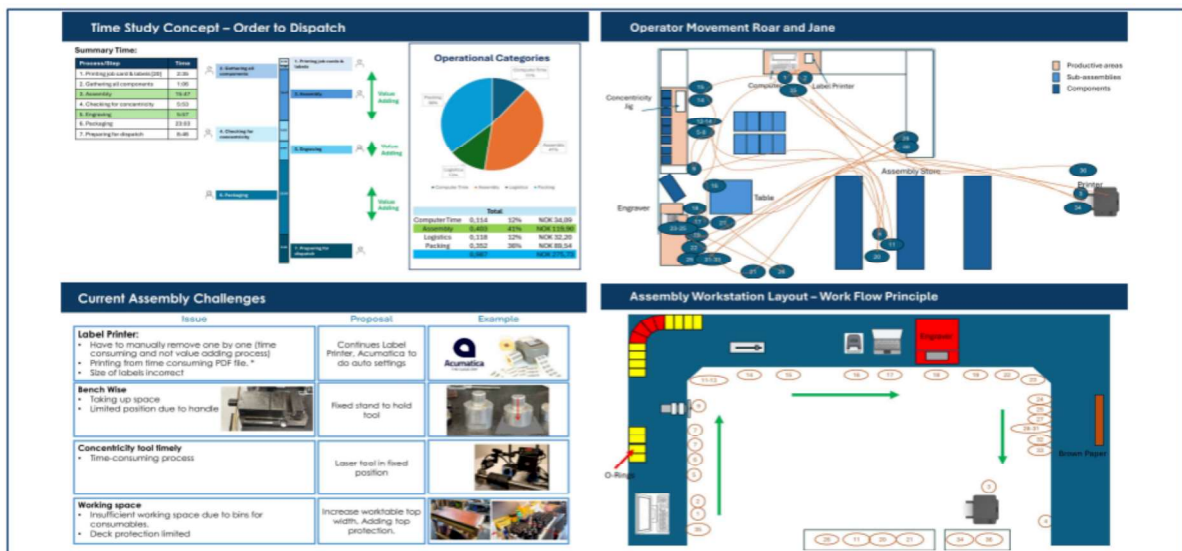
- Analysis of the as-is status and recommend improvement projects

Phase 2

- Develop measurable KPIs.
- Improve the organizational structure.
- Introduce and implement ISO 9001.
- Use audit findings to optimise processes.
- Present assembly optimization proposals.
- Present warehouse improvement proposals.
- Present a CNC machine and assembly dashboard proposal.
- Implement preventative maintenance plans.

Approach

The project involved breaking down objectives into manageable tasks, engaging A-TEC personnel at all levels, and systematically addressing each objective with a hands-on approach.



Assembly Optimisation

ISO 9001 Framework Implementation

The implementation of the ISO 9001 Framework consisted of the following main components.

- **Organisational Basics:** Developed a vision, mission and values for A-TEC, along with an organogram, and job descriptions.
- **Mission Management:** Conducted a SWOT and PESTLE analyses, identified risks and opportunities with associated severity, and trained the staff how to implement project management and change management.
- **Support Management:** Ensured equipment calibration, developed process flows and assembly instructions. Created and implemented HR tools like a skills matrix, on-boarding/off-boarding checklists, and a performance review form, notice board. Developed a document register for the newly 100+ documents created within the project timeline.

- **Operations Management:** Implemented supplier assessment, documented customer requirement documentation, assessed shopfloor workers, defined product design processes, improved batch control and traceability proposal was done, and implemented a fully operational quarantine process.
- **Measurement Management:** Developed quality control inspection processes and checklists, provided training, and created an audit register.
- **Non-conformity Management:** Established a process for managing non-conforming products, including NCR forms and root cause analysis.

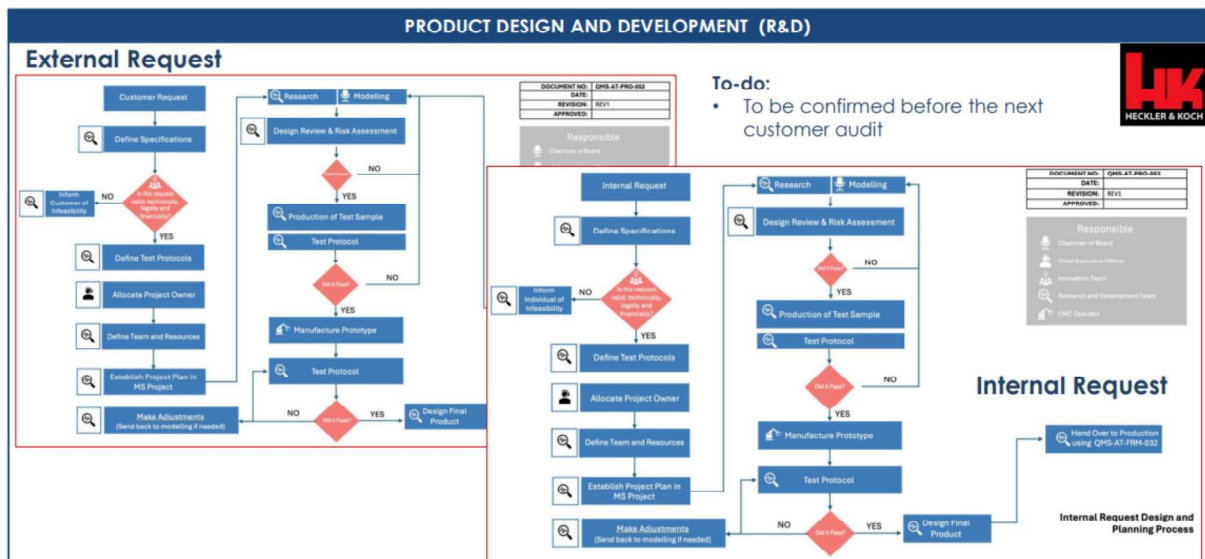
Sub-Projects

Several sub-projects were implemented.

- Developed KPIs for sales, CNC machine time, quality, and material availability.
- Presented assembly optimization proposals based on time studies and workstation layout improvements.
- Proposed warehouse improvements, including material classification, allocation and layout.
- Presented CNC machine and assembly dashboard proposals.
- Implemented preventative maintenance plans for CNC machines, laser welding machines, and infrastructure.

Challenges that had to be Overcome

- Integrating a new ERP system concurrently with the project.
- Overcoming language barriers through effective communication.

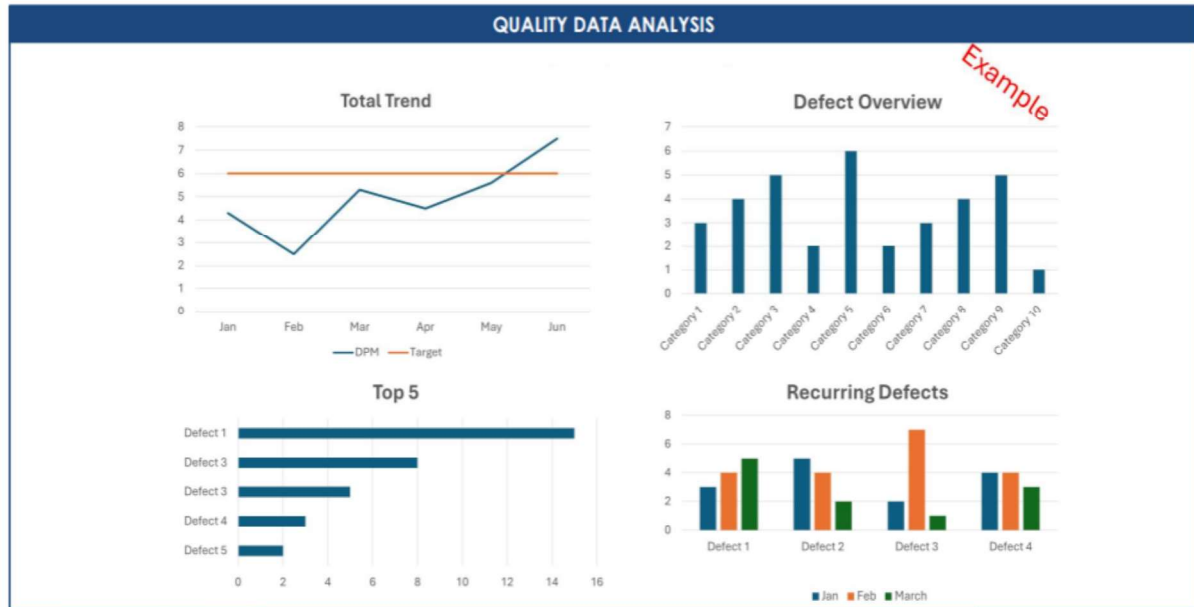


Product Design & Development

- Addressing resistance to change by involving staff in processes and decision-making.
- Having to draw-up all processes as very little was documented.

Outcomes

- Introduction and implementation of ISO 9001.
- Enhanced organizational structure and clearer documentation.
- Improved assembly processes, warehouse management, and maintenance plans.
- ERP system integration on targeted areas.



Manage Operations

Lessons Learnt

- Effective communication and staff involvement are crucial for overcoming resistance to change.
- Clear documentation and structured processes significantly improve operational efficiency.
- Systematic implementation of quality management frameworks leads to measurable improvements in performance and outreach were essential for promoting awareness of the project and the findings.

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