Ingranaggi Moreali Customer Success Story by X Platform



Emerging needs in industrial manufacturing: leveraging data for the enhancement of production processes for mechanical components.



Story Overview

Headquarters: Reggio Emilia, Italy Sector: Manufacturing Employees: +90 Project's machinery number: 45 (+12 manual) Project start date: 2021 X Platform: HMI & IPC + Edge Visualization + Lean Machine Analytics

Project Summary

X Platform employed to Ingranaggi Mario Moreali spa case: production KPIs' analysis to achieve a supply output worthy of a leading company in high-quality precision gears' development and manufacturing.

Moreali's Challenge: understanding the power of Data Analysis

Moreali's digital transformation journey is characterized by a clear corporate goal: to become a Lean World Class® player within five years. The pursuit of operational excellence involves a progressive digitization program that embraces the entire plant in a mature operating model to ensure greater speed, elasticity, decision-making ability and competitiveness. It begins with people engagement and real-time analysis of Key Performance Indicators, followed by preventive and proactive actions to increase effectiveness and efficiency.

The request of the customer, in terms of goal to be achieved, are focused on:

- Quality: reduce the Defects Per Million (DPM) value and incorporate a more accurate analysis of the root causes leading to product defects. That will influence on cost and time waste, which will translate into better service to the end customer
- Efficiency: to increase Overall Equipment Effectiveness (OEE) it is necessary to measure the related five losses. establishing "lean" material flows and simplifying procedures represent the initial phases; equipping operators with data visualization dashboards empowers them to proactively address and eliminate inefficiencies within the plant

Moreali's Solution: "Power is Nothing Without Control"

Moreali's approach can be characterized as highly focused. Digital transformation should be undertaken with a clearly defined objective rooted in rigorous data analysis.

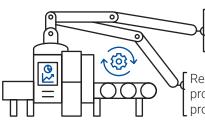
Hardware

Software

Applications

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Automatic acquisition and reprocessing of machines' data related to information available from internal legacy systems.

Real-time monitoring of production progress: resulting increase of productivity and output quality.

Our Technology: X Platform

Gateway eXware703: Data analysis and collection at the edge. Transfer of reworkings to HMI Dashboard.

Accessory PLIO03 + PLCM05: Refinement, enhancement and extension of gateway communication channels.

Runtime Software JMobile: license uploaded on eXware703. The Software is tailored by Next-Stel to fit for Moreali's needs.

Collect&Analyze + Flash Meeting by Digibelt:

- 1. Machinery procurement management: raw materials and necessary tools are requested through a dedicated virtual ticket system
- 2. Casualization of scraps: revision of the list of rejection causes with report analysis
- 3. Bidirectional communication between customer's ERP and CORVINA for managing incoming orders, order prioritization and warehouse management
- 4. BackOffice RealTime control: visualization of KPIs or reports on dedicated Dashboards
- 5. Integrated system across all machines to collect data on production processes and tracking of critical phases

X Platform Results



َسَا >10%

OEE percentage points increase





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Keep in Touch!



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