

VALUE CHAIN DIGITALIZATION USING MES TO ACHIEVE END-TO-END TRACEABILITY AND MATERIAL SYNCHRONIZATION

Client: A leading enterprise at the forefront of designing and developing technologically advanced two-wheeler automobiles. The client's globally benchmarked manufacturing facilities are based on sustainable development and high ecological standards catering to customers in 35+ countries.

BUT:

In order to comply with future regulations, the organization needed to trace all critical parts of the automobile across the value chain and for the product lifecycle. The current process had a very high level of dependency on streamlined flow of Men & Materials due to extremely low takt-time of less than 30 seconds on the main assembly line.

WHAT WAS LACKING?

- Ability to track constituent parts of the vehicle— vendor, manufactured date & time, lot, invoice, PO and inspection details, limited view on vehicle traceability matrix and product genealogy
- Real time inventory visibility and material movement in the plant resulting in excess stock, planning delays and additional manpower in Production Planning & Control department
- Effective receiving process and warehouse management resulting in non-adherence to the incoming inspection process and excess workload in Supplier Quality Assurance department
- Ability to capture process & machine data and track key operations metrics in real time

OUR SOLUTION

- A comprehensive MES solution for raw materials to finished goods management with full backward & forward traceability
- A logistics execution template to achieve full material synchronization and pull based manufacturing driven by the main assembly line
- Complete overhaul of the quality inspection process with automated inspection, real time data capturing and closed loop monitoring
- System based production planning, automated order dispatch to respective shops and minimal manual transactions to achieve standardization on the shop floor
- Real time visibility into critical machine data and KPIs through automated data capturing from PLCs

THE RESULT

- 100% improvement in traceability standards with zero impact in the takt-time on the main assembly line
- Productivity enhancement by 5% through elimination of NVAs and system-based processes
- Reduction in WIP inventory through better material visibility and tracking during the entire production life cycle
- Improvement in process adherence driven by strict compliance to standards enforced by the MES system

ITC INFOTECH'S MES CAPABILITIES

ITC Infotech has extensive experience in delivering MES solutions and services worldwide with rich domain expertise and understanding of shop floor processes backed by ITC Group's strong manufacturing presence. Our product certified consultants provide expert end-to-end guidance on MES spanning multiple sectors and leading product platforms