



Case Study | CEIT

# SHOP FLOOR DIGITIZATION AND WORKFLOW AUTOMATION

ONE OF THE PRIMARY REASONS THE CLIENT CHOSE TO WORK WITH TATA TECHNOLOGIES WAS THE COMPANY'S COST-EFFECTIVE ONSITE/OFFSHORE DEVELOPMENT MODEL.

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## THE CHALLENGE

The client was looking for a manufacturing execution system (MES) to better manage their plants. Specific challenges included:

- Replacement of existing proprietary machines and controls.
- Working with legacy machines and manual processes.
- Overcoming issues with non-conformance management.

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## THE COMPANY

A leading manufacturer of steel tubes in the Middle East, producing 6-20 inch high frequency induction (HFI) welded pipes for the petroleum industry.



## THE SOLUTION

- Provided for production monitoring and order status tracking with a runtime work-in-process (WIP) display.
- Included development and implementation of a tube tracking system with a SCADA platform.
- Provided traceability, genealogy and quality parameter recording, along with workflow validation and non-conformance handling.
- Interfaced with enterprise resource planning (ERP) for production planning, material consumption booking and production booking.
- Included production status and performance checks per planning and design rules.
- Included quality management, validation and error proofing capabilities.

## THE RESULT

# 100%

Adherence for  
non-conformance



Eliminated manual  
dependency for  
workflow validation



Digitized the  
shop floor



Provided for online transfer from  
legacy systems to a commercial  
off-the-shelf (COTS) solution

## ABOUT US

Tata Technologies is a global engineering and product development IT services company that is focused on fulfilling its mission of helping the world drive, fly, build and farm by enabling manufacturing companies across the automotive, aerospace and industrial heavy machinery verticals realize better products and drive efficiencies in their businesses. There are two components to our value proposition – managing and delivering outsourced engineering services and products for our manufacturing clients, and helping them identify and deploy technologies that are used to conceptualize, design, validate, build, test, benchmark and realize better products. For more information, visit [www.tatatechnologies.com](http://www.tatatechnologies.com).