Hitachi Social Innovation
Forum – Industry 4.0 & Data Governance
Hitachi Consulting Partnered with Energy Product Manufacturing Company to implement an Industry 4.0 Solution

Client
- Intelligent workplace
- Future factories
- Connected customers
- Smart products

Advanced Process Control
- CoE for
- SMART Manufacturing
- CoE for (MoM)
- Digital Shopfloor
- Predictive Maintenance
- Material Traceability

Quality
- Reduced COQ
- Optimized processing cost
- Cost

Productivity
- Optimize Cycle time
- Reduced Near MISS
- Optimize FG inventory and improved planning

Safety
- Delivery

Optimize Cycle time
- Reduced Near MISS
- Optimize FG inventory and improved planning
Our transformation enabled fundamental shift in current practices

1. 25+ excel records - same data by different function
2. Hidden losses leading to under utilization of plant potential (OEE)
3. Significant time spent in data capturing and making reports
4. Experience based decision making (leading to delay at times)
5. Ambiguity in individual contribution

- Single data entry + Digital capturing leading to “ONE VERSION OF TRUTH”
- Visible & Measurable losses lead to freed up capacity
- Instant access to relevant information; time freed for value-add activities e.g., RCA
- Fact based decision making
- Enhanced ownership due to specific performance measures (Asset, Process, People)
Future factory → Industrial IoT Implementation

ADVANCE PROCESS CONTROL
- Improved quality, reduction in visual defects (COPQ%) and appraisal costs (COGQ%) through enhanced process control and real time optimization

MANUFACTURING OPERATIONS MGMT.
- Digitization of all manual forms real-time tracking of losses, real time visibility on inventory ageing, and easy access to critical parameters

MATERIAL TRACEABILITY
- Material traceability leveraging QR code to be considered for stores, incoming RM and OSP

PREDICTIVE MAINTENANCE
- Monitoring failure modes of critical machines and leveraging machine learning algorithms to predict the failures

SMART ENERGY AND UTILITIES
- Real-time visualization on energy losses with recommendations to reduce the losses (energy balancing – comparison between theoretical and actual)

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Industry 4.0 Implementation Results

- Advanced process control for crimping and moulding operations
- Production monitoring for the surge arrester and insulators line
- Process improvement focusing on quality aspects
Andhra Pradesh – Data Integration and Governance

Andhra Pradesh
Hitachi Consulting India

For the most effective data analytics that drives the most measurable outcomes from the Internet of Things

With a people-first motto, the government of Andhra Pradesh strives to provide agile and efficient public service delivery systems benefitting nearly 50 million citizens in a 360-degree lifecycle approach through its Real Time Governance (RTG) initiative.

With the help of Real Time Governance, Andhra Pradesh can now swiftly resolve citizen grievances, monitor infrastructure projects, incidents, weather & climatic events, across the state in real time, leveraging technology services. RTG is able to analyze big datasets gathered from various sources with the help of Hitachi to make insightful decisions that vibrantly transform citizen services.

Andhra Pradesh and Hitachi Consulting – Generating Golden Data
AP State Command and Communication Center
Real Time Governance

Public Safety
Surveillance cameras, video and crime analytics, social media information, government trends

Data Analytics
Integrating data across 33 different state departments and IoT devices

Disaster Relief
Real-time weather tracking for large storms. Warning system for citizens
A Force Multiplier for Public Safety

- ALERT!
  - Suspicious Object

- Video Feed
  - Suspect Identified

- Live Face Matching
  - Suspect Located

- License Plate Recognition
  - Getaway Vehicle
    - Searched & Located

- Similar Face Search
  - Suspect Movements

- Live Face Matching
  - 2nd Suspect Located