"we build brainpower ......
to choose quality product"

IoT & TRACEABILITY

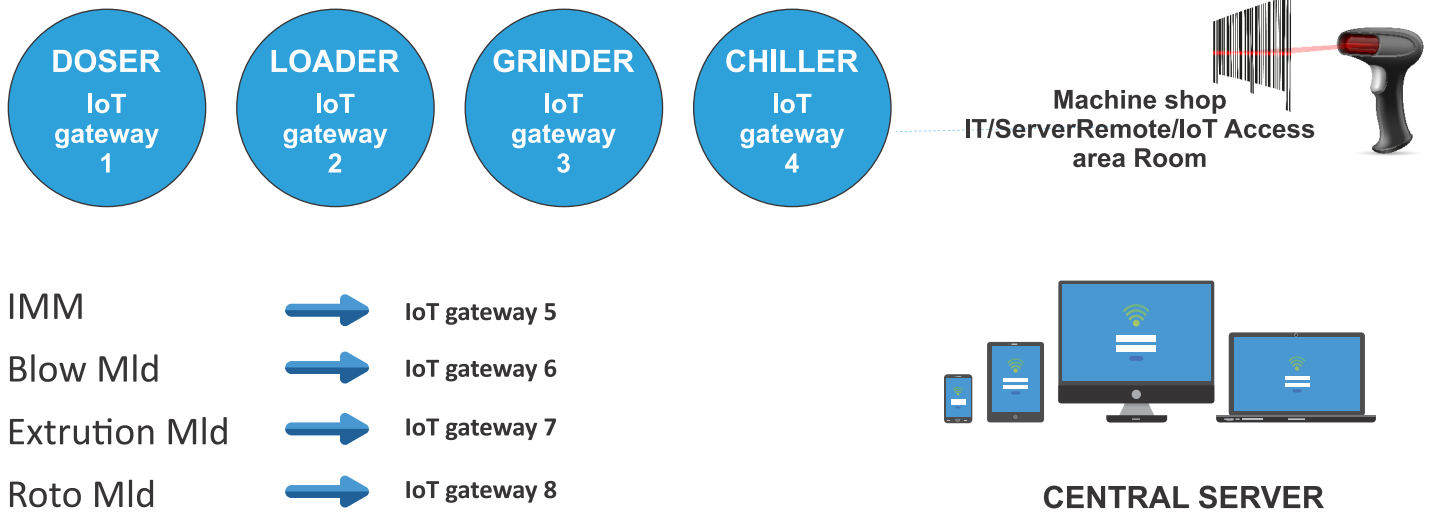## FOR PLASTIC PROCESS INDUSTRY

SUPRAK
TECHNOLOGIES

Suprak offers a comprehensive IoT (Industry 4.0) and traceability solution develop for plastic processing industry. This solution can be integrated with any ERP, SAP or MIS to monitor the health of the industry with aim of increasing operational efficiency by reducing losses through data analysis.

Suprak IoT Solution

SuprakIoT Solution for plastics process industries gives access to customers to utilize "Intelligence of Things" through data acquisition and advanced data analytics from simplest machine to complex production process. We provide turnkey, plug and play solution requiring zero IT investment.

Suprak' solution with online automated dashboards, reports and analytics are accessible using any device, anytime, anywhere.
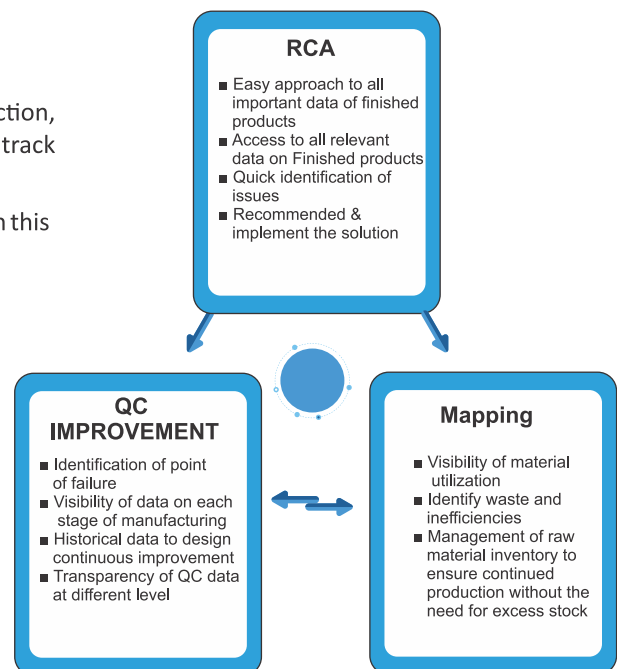
Iot Architecture

DOSER IoT gateway 1	LOADER IoT gateway 2	GRINDER IoT gateway 3	CHILLER IoT gateway 4

Machine shop IT/ServerRemote/IoT Access area Room

IMM	➡	IoT gateway 5
Blow Mld	➡	IoT gateway 6
Extrution Mld	➡	IoT gateway 7
Roto Mld	➡	IoT gateway 8

CENTRAL SERVER

Suprak Traceability Solution

This module stores data about material, machine, mold used for production, date, time, and operators at different stages of production which helps in track and trace step wise process history of any finished product.

- ✔ Online data capture through scanning: a sustainable and effective solution this reduces the use of paper which eliminates manual entries.
- ✔ Effective callback history management.
- ✔ Inventory accounting and management

RCA
- Easy approach to all important data of finished products
- Access to all relevant data on Finished products
- Quick identification of issues
- Recommended & implement the solution

QC IMPROVEMENT
- Identification of point of failure
- Visibility of data on each stage of manufacturing
- Historical data to design continuous improvement
- Transparency of QC data at different level

Mapping
- Visibility of material utilization
- Identify waste and inefficiencies
- Management of raw material inventory to ensure continued production without the need for excess stock

Machines covered
- ✔ Injection moulding machines
- ✔ Blow moulding machines
- ✔ Sheet extrusion machines
- ✔ Pipe extrusion machines

Integration available for standard auxiliary equipment
- ✔ Mixers, Doser
- ✔ Dryer, Loader
- ✔ Chillers, MTC
- ✔ Compressors

Business system integrationavailable
- ✔ ERP
- ✔ Barcode systems
- ✔ Production planningsystems

Console view
- ✔ Live status of all machines

Production analytics
- ✔ Production (length, pieces, shots)
- ✔ Production inkgs
- ✔ Ate of production

Quality analytics
- ✔ Number of good and bad shots
- ✔ Rejection analysis

Energy analytics
- ✔ Energy consumption analysis
- ✔ Specific energy consumption

Performance monitoring
- ✔ Process and mechanical parameters
- ✔ Temperature trends
- ✔ Average mould change overtime
- ✔ Total mould loading
- ✔ Running vsdesign

Mould analytics
- ✔ Actual cycle time
- ✔ Mould-machineperformance

Application with custom dashboards and reports

End user operations analytics

OEM service analytics

OEM design validation analytics

Integration with service ticketing and online

documentation

Online automated reports
- ✔ Monthly, daily and shift-wise reports
- ✔ Operational reports (shot-wise)
- ✔ Product summary

Logbook
- ✔ Digital logbook for operators and supervisors

Email and alerts
- ✔ Reports via email
- ✔ Machine alerts via email
- ✔ Condition based alerts

Consolidated dashboards
- ✔ Multi-plant/unit level
- ✔ Section level
- ✔ Machine level

Track KPIs
- ✔ Production
- ✔ OEE – Availability, performance, quality
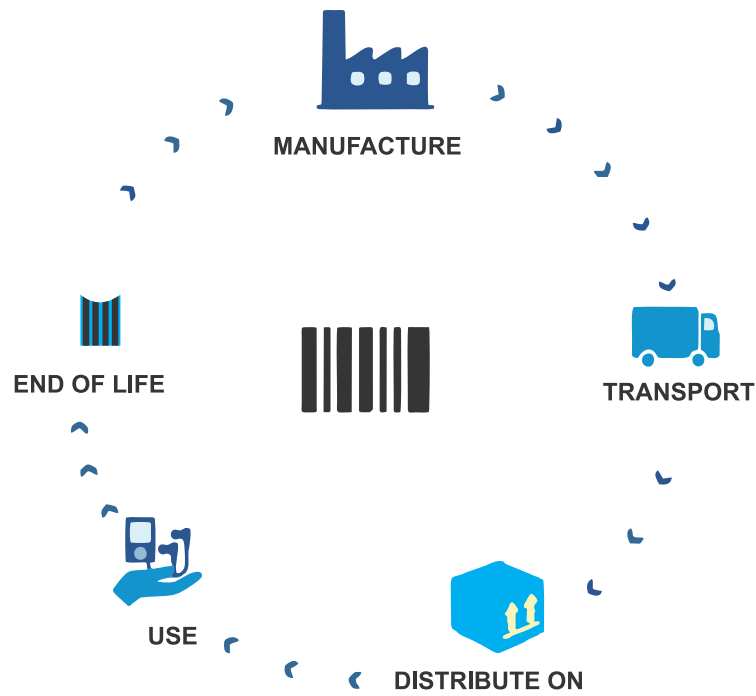- ✔ Downtime analysis
- ✔ Benchmarking

Data security
- ✔ Authentication
- ✔ Role based access

Add-onfeatures
- ✔ End-to-end materialtraceability
- ✔ Maintenance module
- ✔ MTTR and MTBF
- ✔ Maintenance scheduling

MANUFACTURE

END OF LIFE

TRANSPORT

USE

DISTRIBUTE ON