

Cloud Based-Process Intelligence

Empowering Decision Making

Quick system implementation | Links across all brands | Modular future expansion





WHAT is GENiE™ SMART FACTORY?

Ahead of the curve in Industry Internet of Things (IIoT) and Industry 4.0, **GENiE™** is a SMART FACTORY that fulfils your information wishes. **GENiE™** empowers decision making to achieve maximum yield and productivity. What puts **GENiE™** SMART FACTORY at the edge, is its capability for predictive maintenance using Artificial Intelligence (AI), thus preparing you well in advance before any unexpected failure takes place. Users are alerted in real time on the precise predictions via their smart devices.

GENiE Information Flow SMART



CORE TECHNOLOGIES OF GENiE SMART FACTORY




Real time information

instant dissemination of accurate and reliable info to all working levels



Predictive alerts

prevents unplanned breakdown, minimize risk, boost quality & increase safety



Analytic intelligence

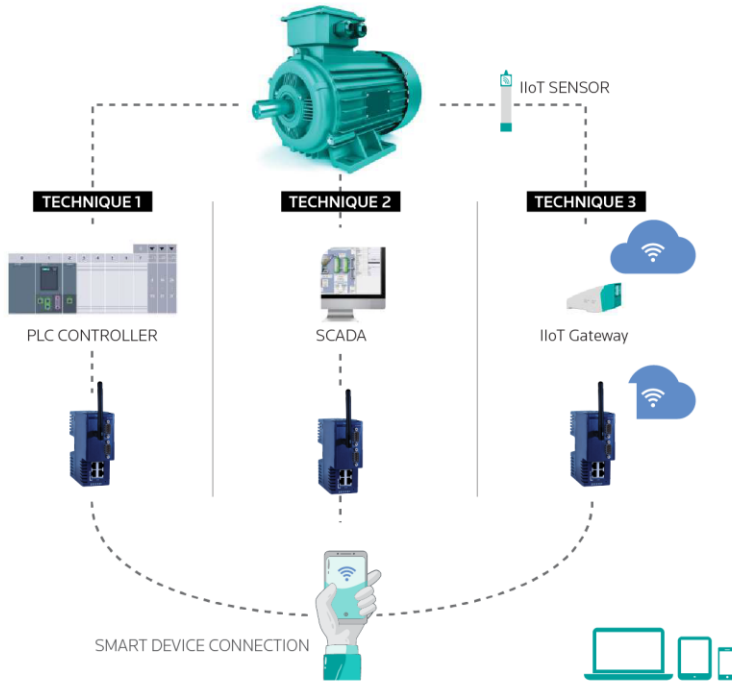
predictive root cause identification, save energy, optimize resources

WHY GENiE SMART FACTORY?

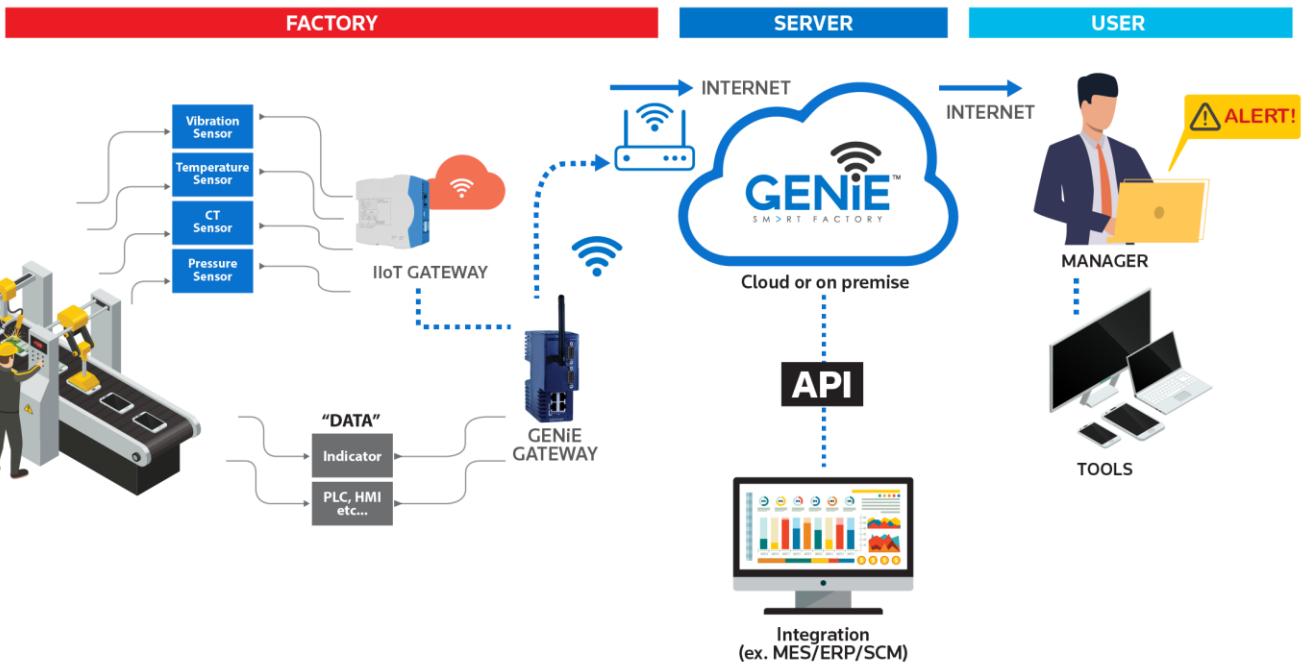
without GENiE	 <p>Frequent breakdown</p>	 <p>COST Unexpected machine failure</p>	 <p>Missing insights from data</p>	 <p>Increase in costs for compensation</p>	 <p>Inaccurate data</p>
with GENiE SMART FACTORY	 <p>Real time alarms and alerts for machine failure</p>	 <p>Predictive maintenance</p>	 <p>AI root cause identification</p>	 <p>Machine learning, avoids production losses</p>	 <p>Smart devices provide precise data</p>

HOW GENIE™ SMART FACTORY Works?

GENIE™ obtains real process values and parameters of your operations. It comes from data acquisition, aggregating, analysing and sharing. This data is extrapolated and translated into a user-friendly dashboard interface to allow continuous tracking of processes or machinery.



GENIE SMART FACTORY FRAMEWORK



OVERALL BENEFITS OF GENIE SMART FACTORY



PRODUCTION MANAGEMENT

- Planning and regulating the operations and production functions in a factory



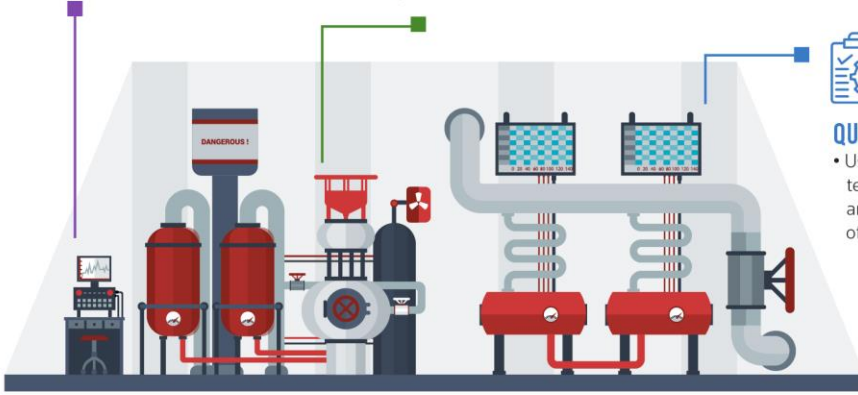
ENVIRONMENTAL MANAGEMENT

- Better environment protection through optimized use of resources
- Ensure environmental legal responsibilities are met
- Linkage analysis of environment



QUALITY MANAGEMENT

- Use data collected and technology for innovation and improve quality of productions



ENERGY MANAGEMENT

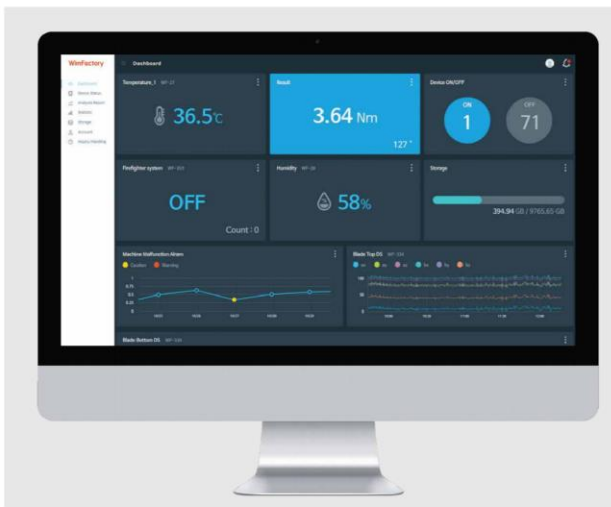
- Systematic management of energy use
- Identify and track progress to save energy by data collected



FACILITY MANAGEMENT

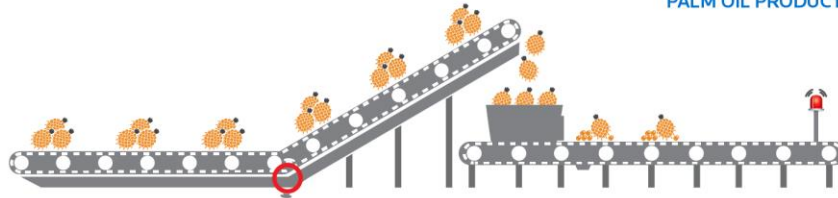
- Preventive and corrective maintenance
- Asset tracking and data management
- Improved productivity and efficiency

GENIE SMART FACTORY DASHBOARD



GENIE SMART FACTORY Case Studies

PALM OIL PRODUCTION



Frequent conveyor breakdowns
3-4 times / month



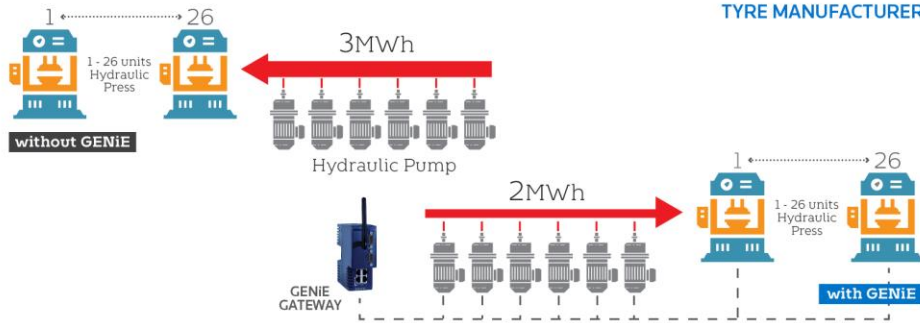
Loss of production & productivity

without GENIE™

GENIE
SMART FACTORY



TYRE MANUFACTURER



without GENIE™

GENIE
SMART FACTORY



APPLIED INDUSTRY



Rubbers / Plastics

Injection molding	Mold temperature management, coolant temperature management, Excess or Surplus material management, electric power management etc.
Plastic film manufacturing	Compressor temperature/pressure/RPM control, weight control of completed products etc.



Vehicles / Railroads

Press	Production pressure/temperature management, predictive maintenance of facility(vibration measurement) etc.
Assembly	History management of parts tightening/fastening, quantity counting, electric power management etc.



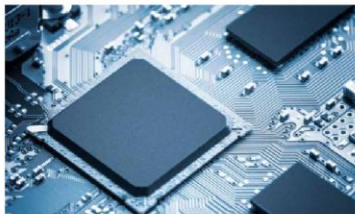
Steels / Metals

Casting	Weight control of materials, temperature management, quantity counting, IQC and OQC management etc.
Coil machining	Predictive maintenance for cranes, machines and facilities, safety control etc.



Machine tools

Coil machining	Predictive maintenance for machines and facilities (Vibration, noise, electric power, flow amount control of oil etc.)
CNC machining	Tool abrasion management, predictive maintenance, electric power management, operation quantity counting etc.



Semiconductors

SMT process line	Facility temperature/humidity/vibration management, warehouse temperature control, wattage management etc.
------------------	--



Textiles / Sewing

Textile manufacturing/ spinning	Fabric thickness control, facility temperature/pressure management, warehouse temperature/humidity control etc.
Shoes manufacturing	Facility temperature/humidity/pressure management, quantity counting etc.