



AI for Industry

askstory

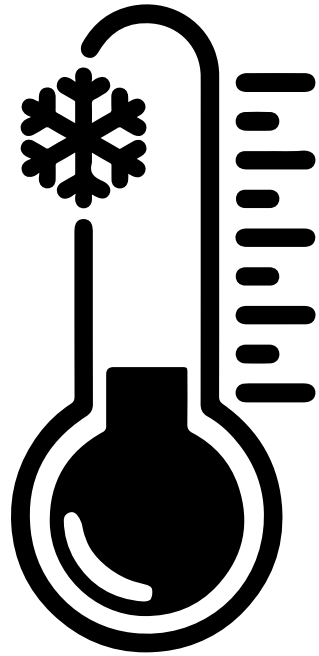
AskStory creates future value for our customers through **digitalization** and **AI** solutions for factories and various industrial sites.

Smart Factory : MES : WMS : FMS : QMS : EMS : ASKI Factory



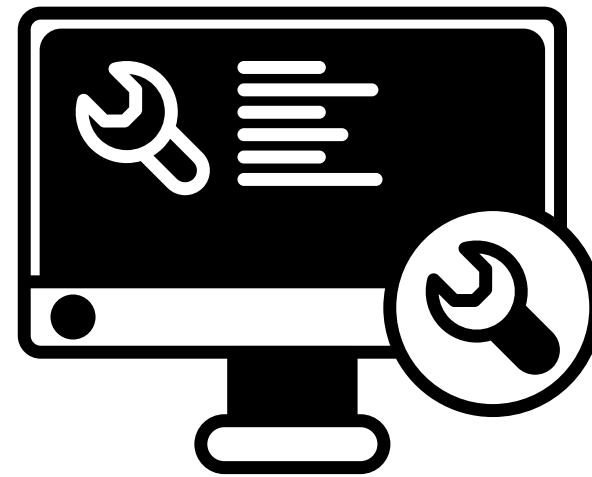
Technology Field

Technology of AskStory



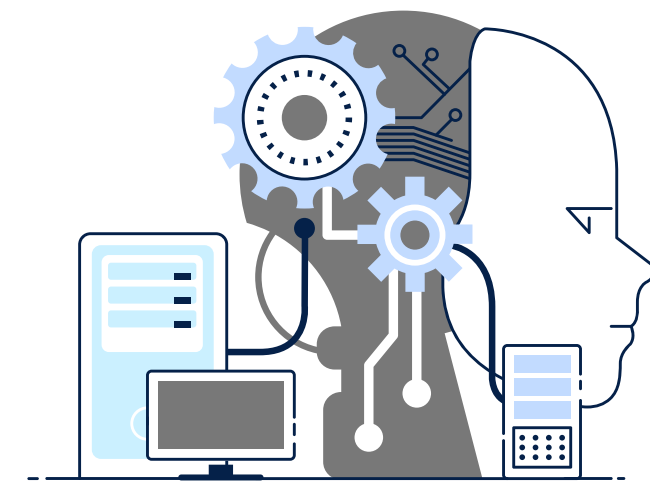
Industrial IoT Sensor

Develop and distribute Industrial IoT sensors necessary for factories and various industrial sites



IT Solution

Develop and distribute IT solutions that can digitize data from various industrial sites



Industrial AI

Development and distribution of optimized AI algorithms to improve productivity and quality in industrial sites

Smart Factory Solutions

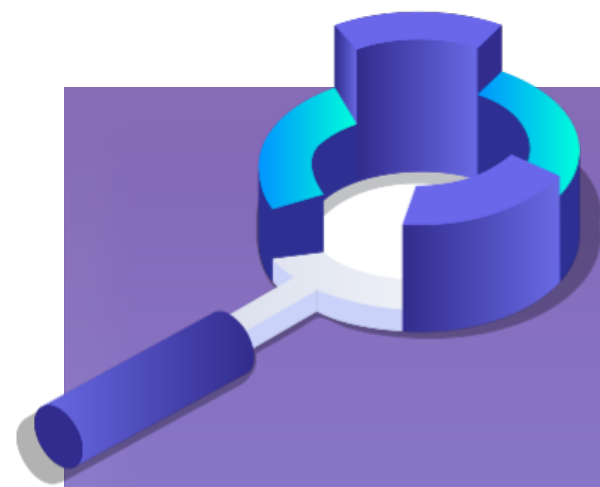
Total Smart Factory Solutions

Factory IT Solution : Develop and provide a customized combination of various IT solutions needed at the production site
Provides a solution that makes any new employee to use the system right away through user-oriented UX/UI configuration

FMS	A solution that collects, processes, and visualizes data coming in through production equipment or PLC.
EMS	A solution that monitors and controls the environment not only in the warehouse but also in all areas of the factory, including the production site.
MES(PMS)	A solution that digitizes all data at the production site and manages work orders, production, and quality status in real time.
WMS	Real-time inventory status visualization solution with various management tools for warehouse receipt, shipment, and status.
APS	Production and material planning automation solution based on all data related to production scheduling.
ASKI Factory	Implement optimal production and quality management through AI by analyzing various big data generated in the factory.

SFS Solution Features

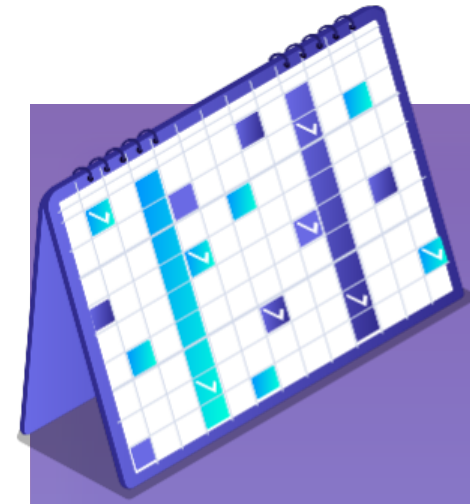
The features of JRES Smart Factory Solution



01

Traceability

A system in which the history of all production-related activities that occur in the factory is tracked and relevant backdata can be easily **tracked, confirmed, and analyzed** based on the production LOT.



02

Interoperability

Seamless data linkage with various external systems such as ERP and SCM



03

Visualization

Visualize various data collected through smart factory solutions so that users can **easily and conveniently identify** them.



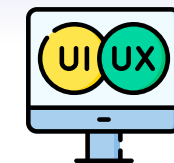
04

Analytical

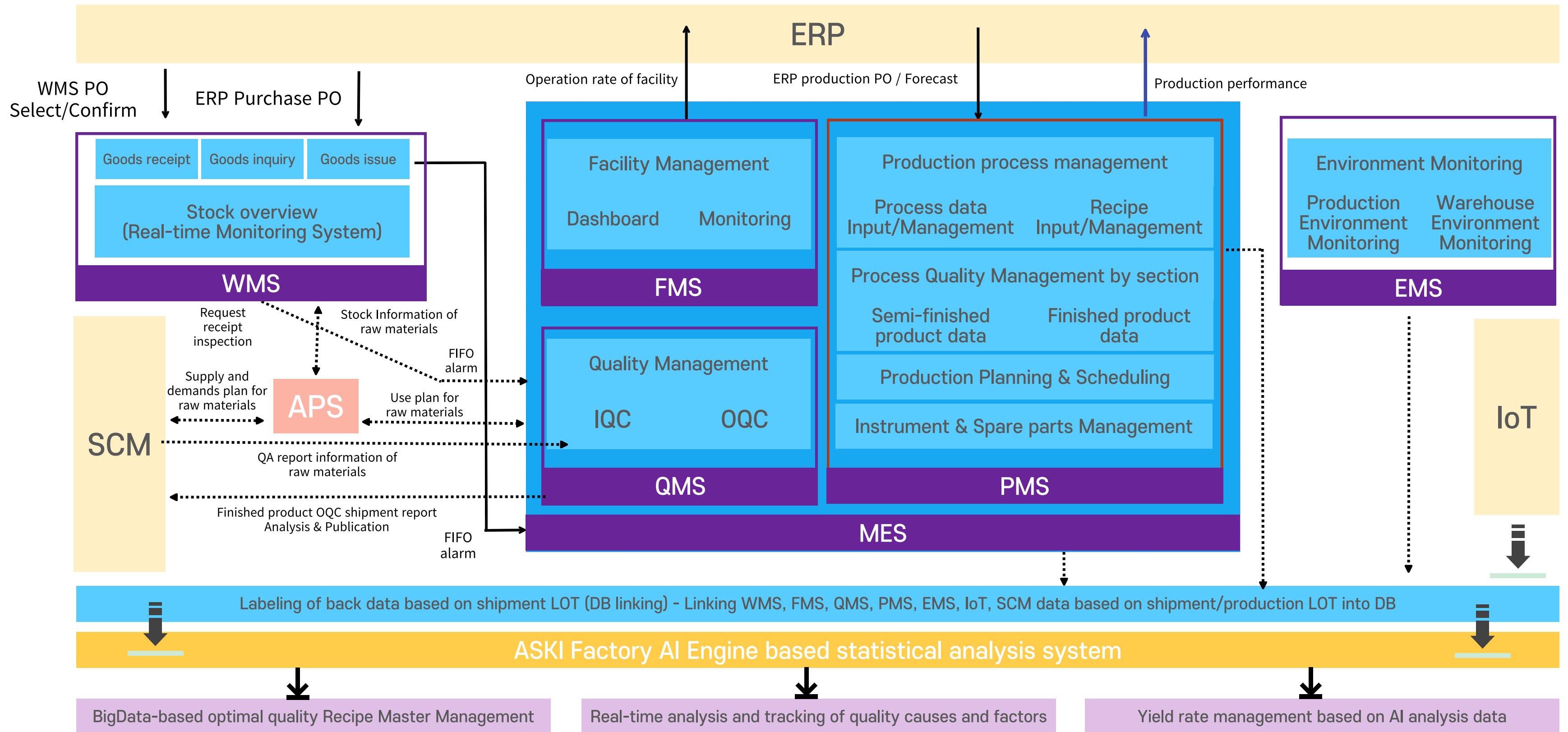
Analyzing correlations and relationships with various collected data **using AI Engine**

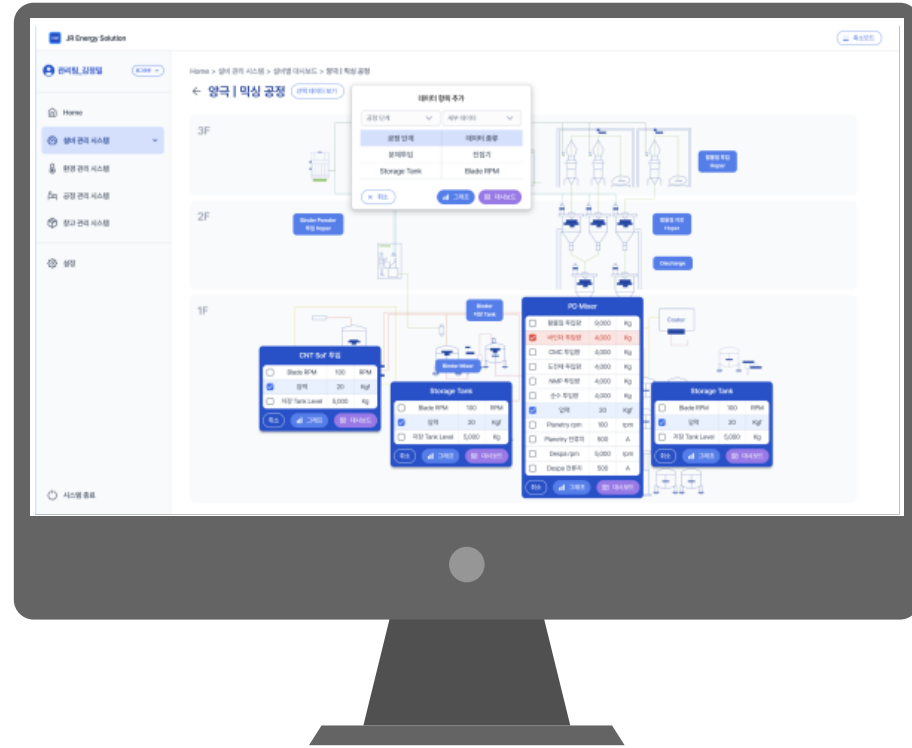


Digital Twin



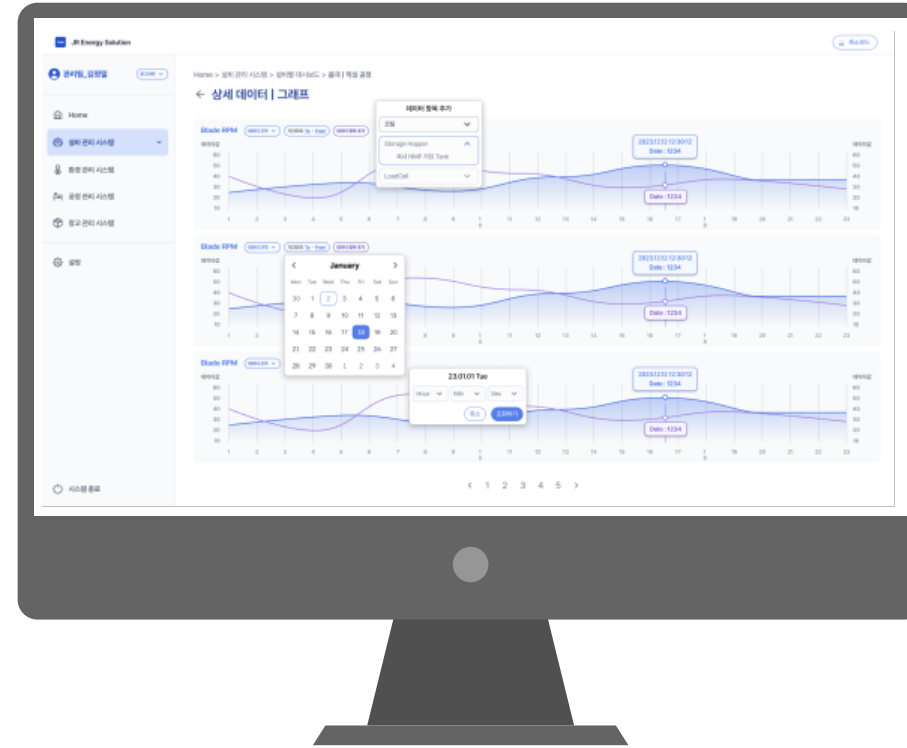
UX/UI





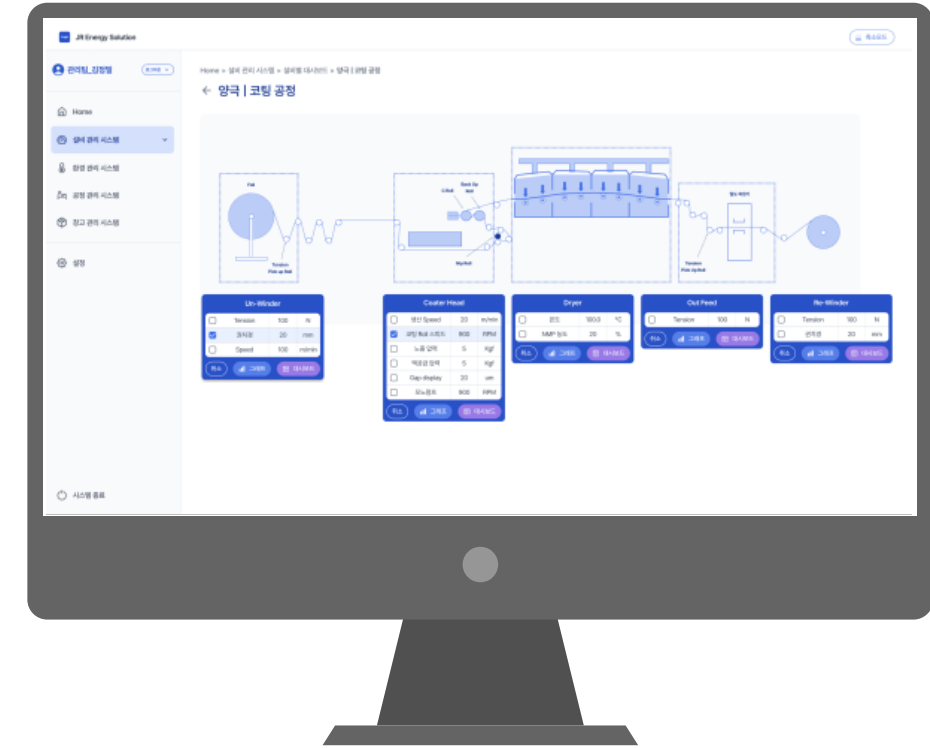
Dashboard by process

Schematic diagram tailored to the process and real-time data expression and analysis for each process



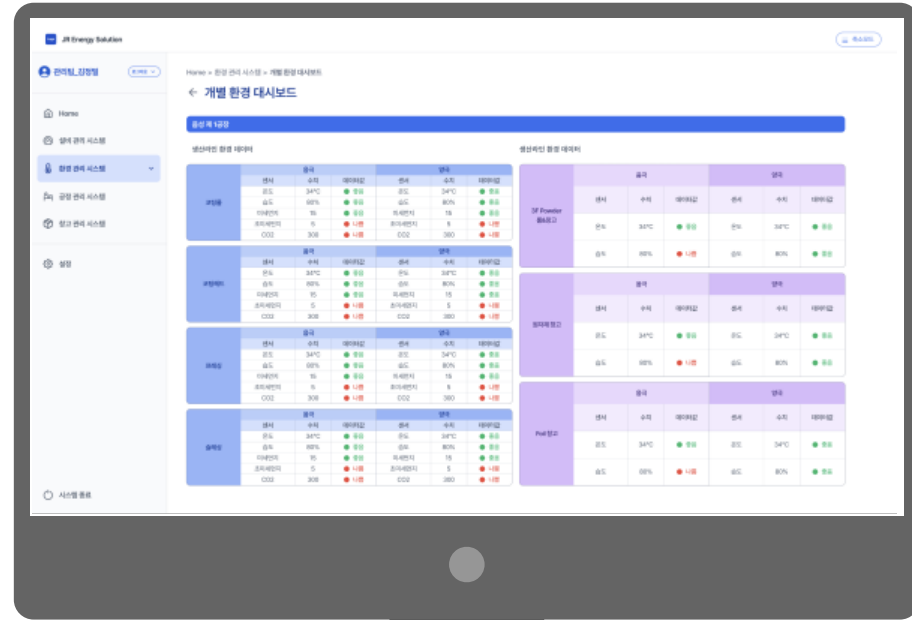
Data visualization

Provides visualization tools that enable intuitive judgment of data and immediate analysis



Abnormal symptom data monitoring

By accumulating data on the entire facility in real time, abnormal symptom data can be monitored and alarms can be used to respond in a timely manner.



Real-time dashboard

Real-time environmental management for entire production lines and warehouses that require environmental management



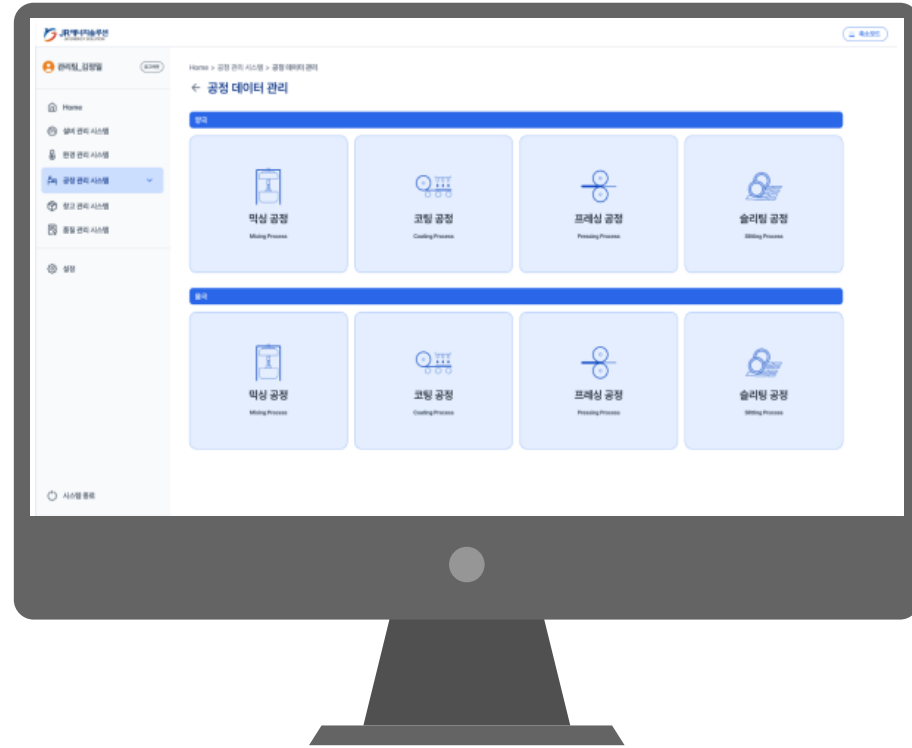
environmental monitoring

Visualize environmental data for each location in real time using the digital twin method



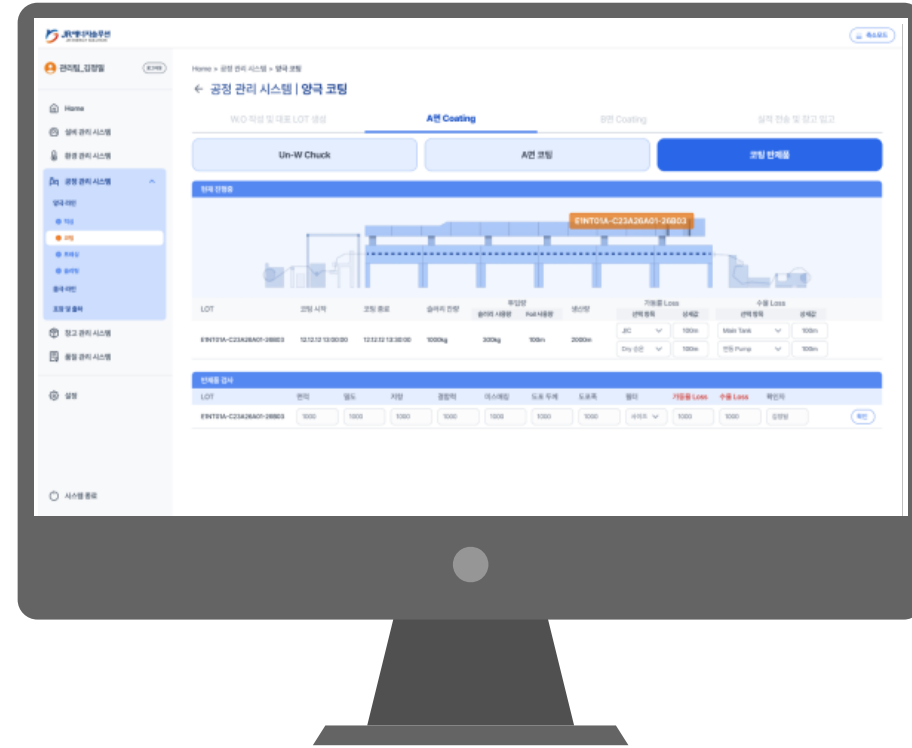
Abnormal symptom analysis

With environmental data abnormality alarm
Provides AI-based environmental data analysis



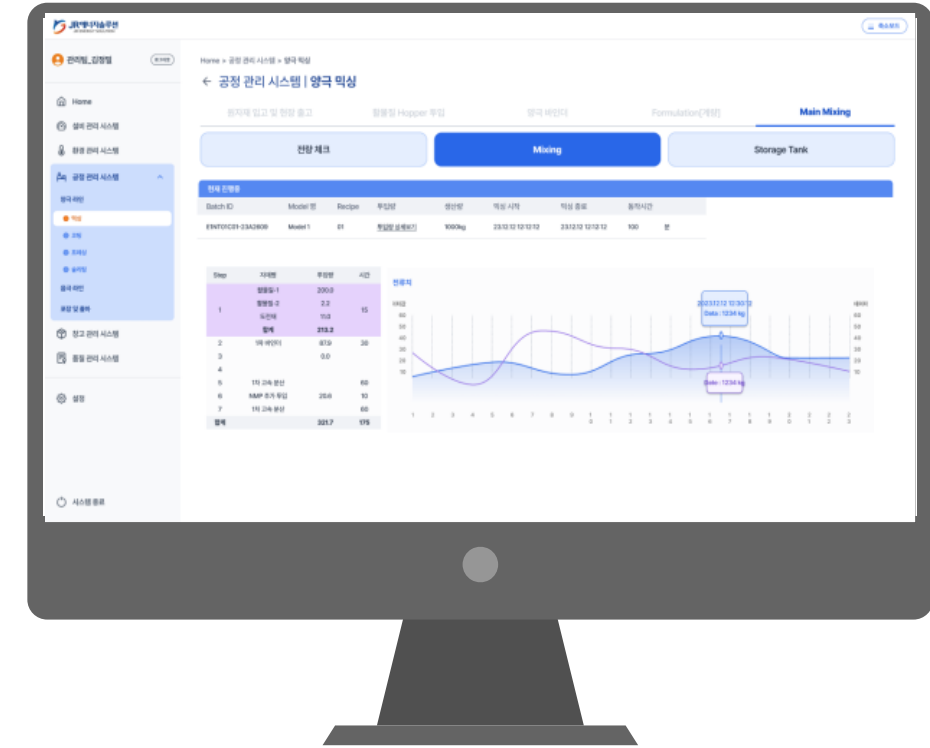
Link to related systems

Organic linkage management with various systems such as ERP, SCM, WMS, etc.



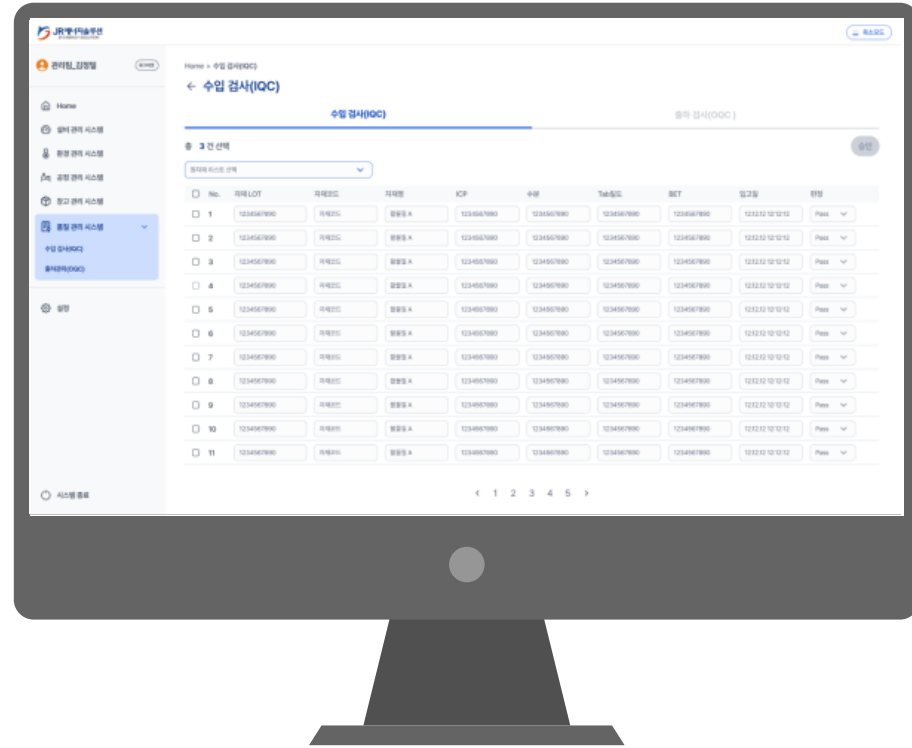
User-centered system

Intuitive UX/UI allows the system to be used without separate training (Intuitive work instructions and management)



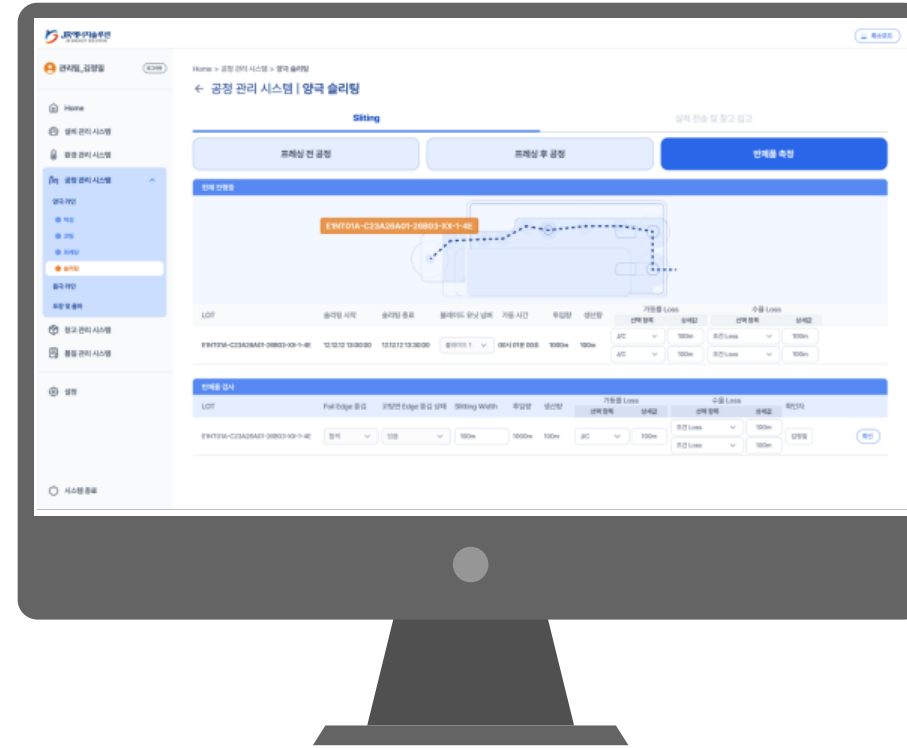
AI-based process data management

Contributes to improving direct delivery rate and quality by providing information on the relationship between Recipe/Formula and production quality through AI analysis



Raw material import inspection (IQC)

When WMS requests inspection of incoming goods, IQC is performed in the QMS system.



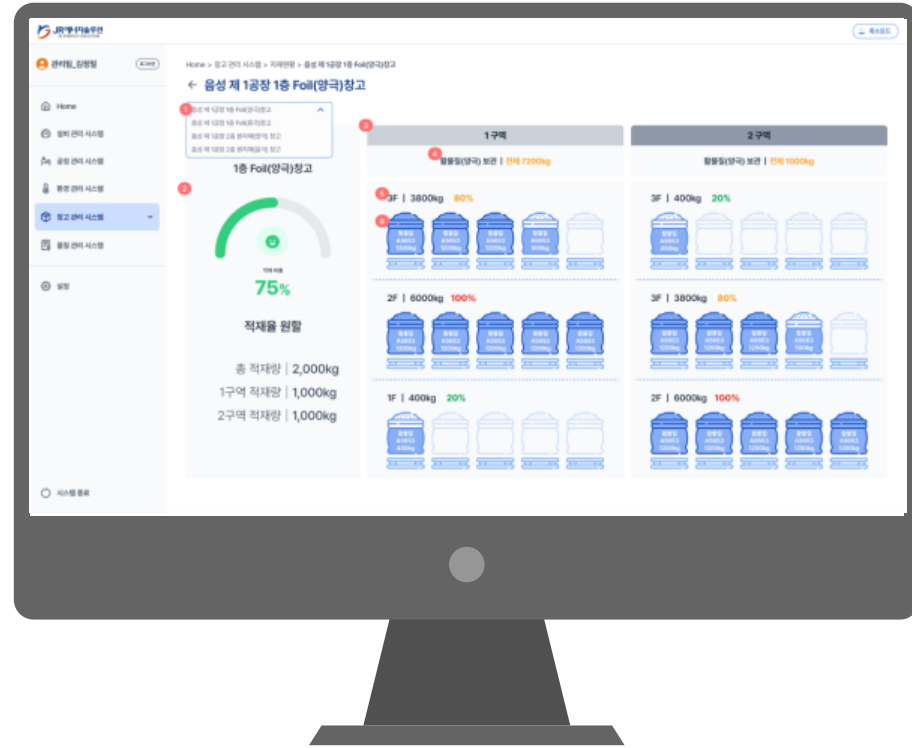
Finished product shipment inspection (OQC)

Have OQC perform product shipment inspection requested by MES or PMS, or perform shipment inspection through automatic DB linkage.



Issuance of a shipment report

Easily issue and manage the history of shipment reports desired by each customer with just a few simple linkages and operations.



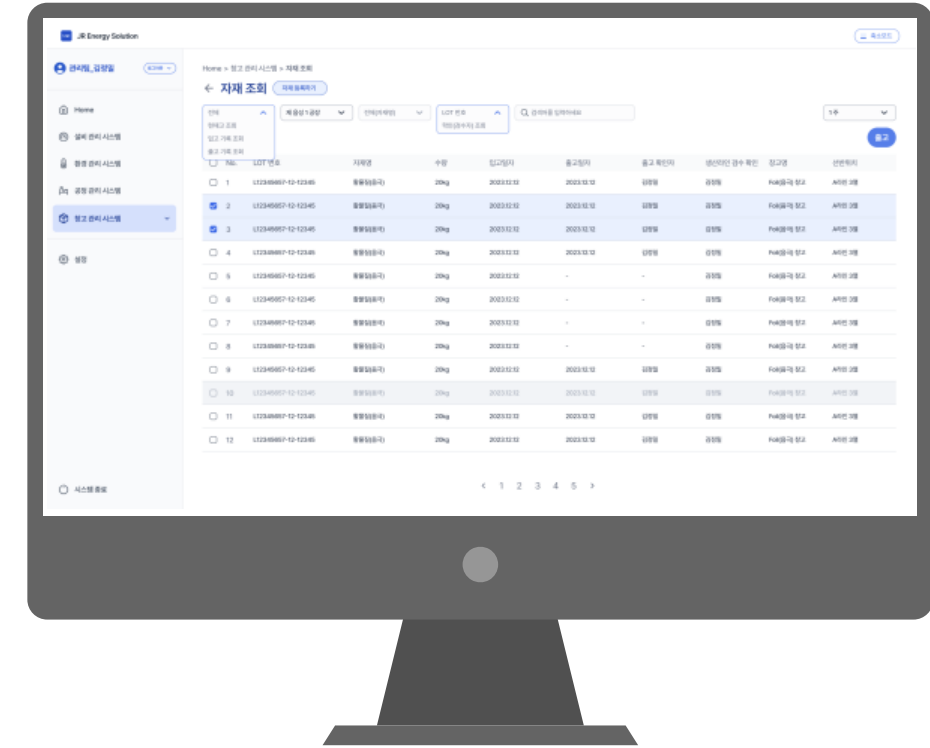
Warehouse loading rate management

Provides real-time information on loading status by warehouse, location, rack, and floor



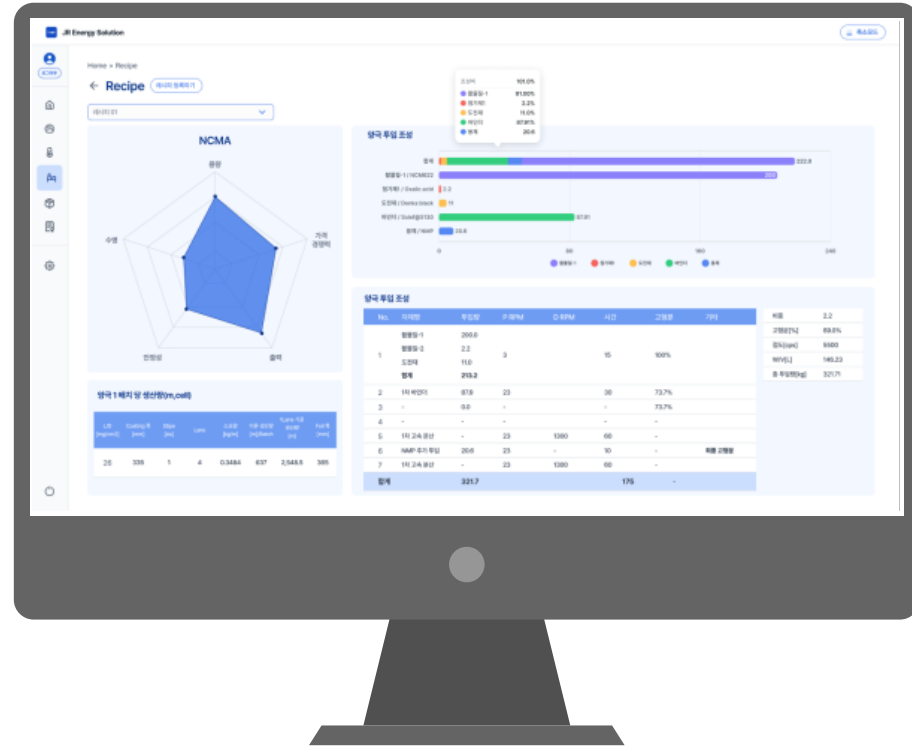
Warehouse operation status analysis

Implementation of visualization that can be intuitively checked by analyzing the warehouse operation efficiency of the entire factory



Material receipt/delivery/inquiry

Efficient material management through stock/output and intuitive inquiry functions for each material warehouse (including FIFO alarm function)



ASKI Factory AI Engine

AI analysis engine to provide optimal insight to improve quality, production rate, and direct delivery rate



AI-based statistical analysis

Provides various Cp, Cpl, Pp, Ppk statistical analyzes used in production and quality control

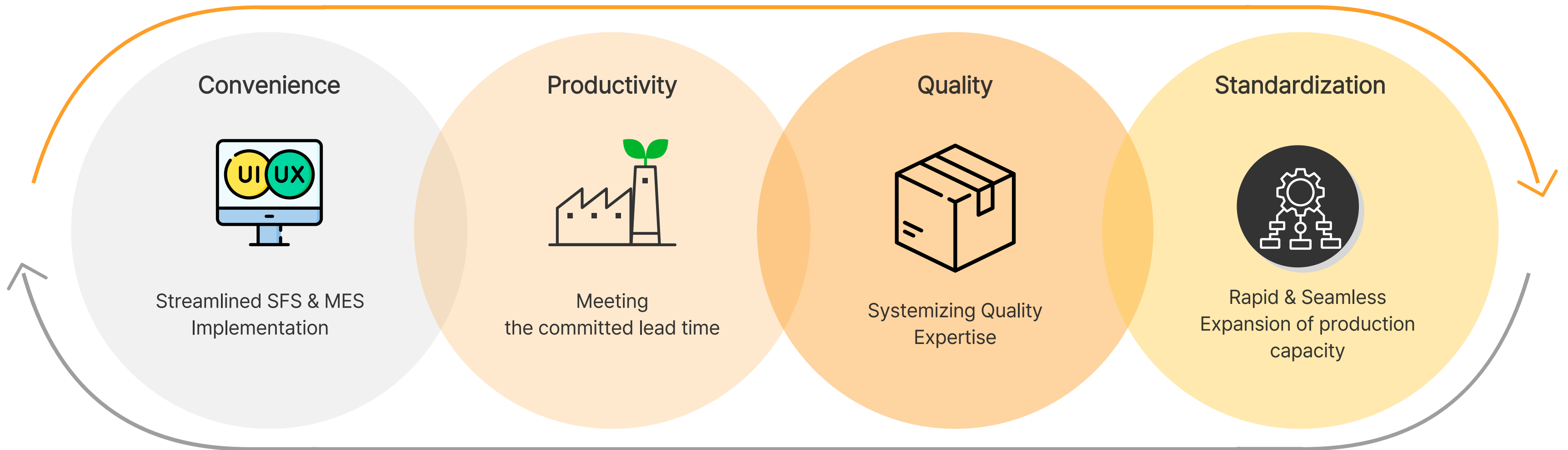


AI-based visualization

Provides a simplification tool that allows users to easily understand AI-based data analysis and make quick decisions

The Vision of ASKI Factory

Creating agile production management support for market responsiveness



Abnormal symptom analysis AI

Analyze accumulated big data related to facilities, processes, and environment, and send alarms (warnings) along with related data analysis when data phenomena that are different from consistent patterns occur.

Recipe AI

Recipe/Formula and quality data
AI solution that recommends and suggests the optimal Master Recipe/Formula through related AI analysis

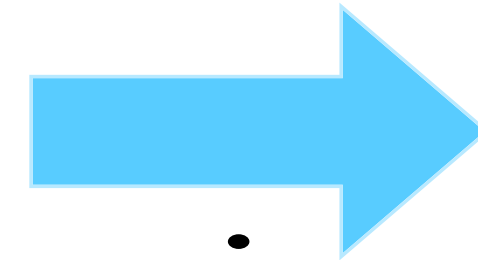
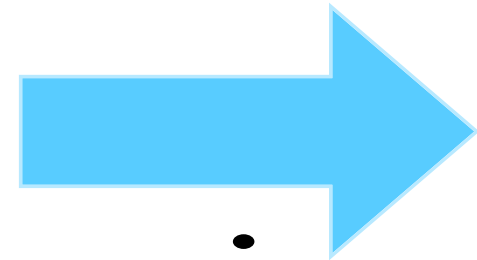


Predictive maintenance AI

AI recommends maintenance management before equipment abnormalities occur through correlation analysis of various sensor information (vibration sensors, etc.) and back data such as equipment operation time and consumable operation time.

CTQ Analysis AI

When a defect or quality issue that affects the yield rate occurs, all back data (raw materials, equipment, process, environment) of the relevant LOT is analyzed and quality improvement points are presented.



Manufacturing/quality big data

Collect/analyze all data that can affect the manufacturing process based on production LOT

Analysis
Data Science

Analytics
(AI, Statistics, Visualization)

Manufacturing/Quality Insights

Provides insight to make optimal decisions

Action
Decision Making

Decision to increase value

Value

Increase company value through optimal decision-making to improve manufacturing quality and production rate (direct wool) through insight

Insights from Analytics

Provides data-driven insights to improve and advance quality, performance, and standardization

The analyticity



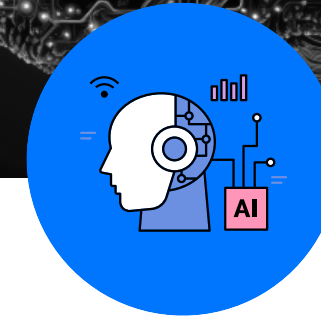
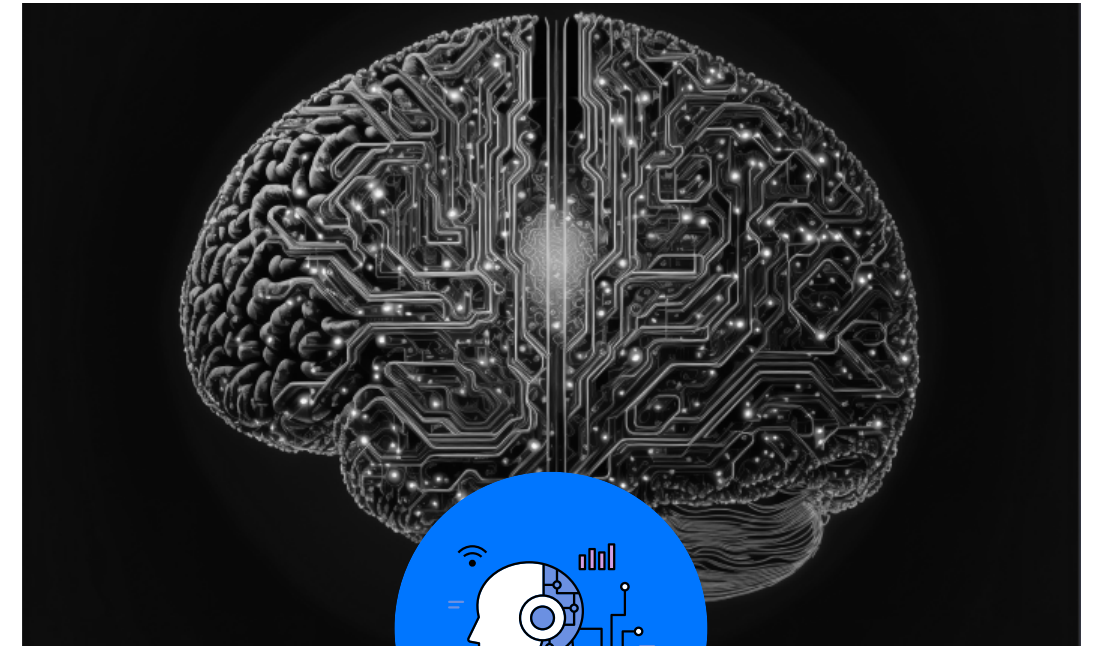
Production and quality control Statistical tools used

It is possible to perform statistical analysis necessary for production sites such as Cpk and Ppk. Provides various statistical module functions.



Production and quality related Various report generation tools

Provides a function that automatically generates various reports such as report reports, production reports, and quality reports based on accumulated data.



AI engine for analyzing data collected on SFS servers

AI engine dedicated to SFS that can perform functions such as tracking the cause of good products and defects, predictive maintenance of equipment, finding signs of abnormal patterns, and recommending optimal recipes.

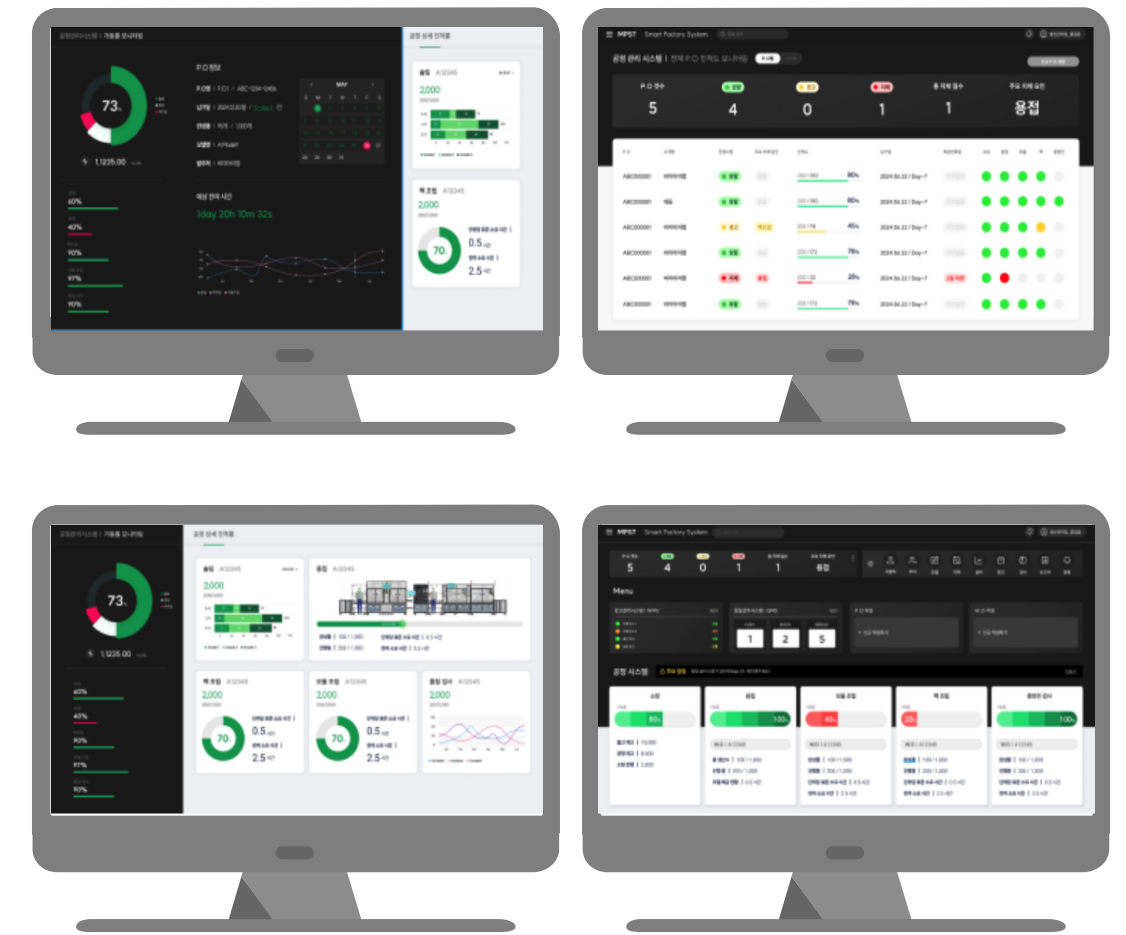
Smart Factory Reference

AI-based company that provides solutions for the entire secondary battery process

Electrode Process Smart Factory

Cell Process Smart Factory

Pack Process Smart Factory



JR Energy Solution

JR Energy Solution

MPST



ASKI Factory which is AskStory's smart factory solution share **the values of increasing production efficiency and improving quality** for our customers.