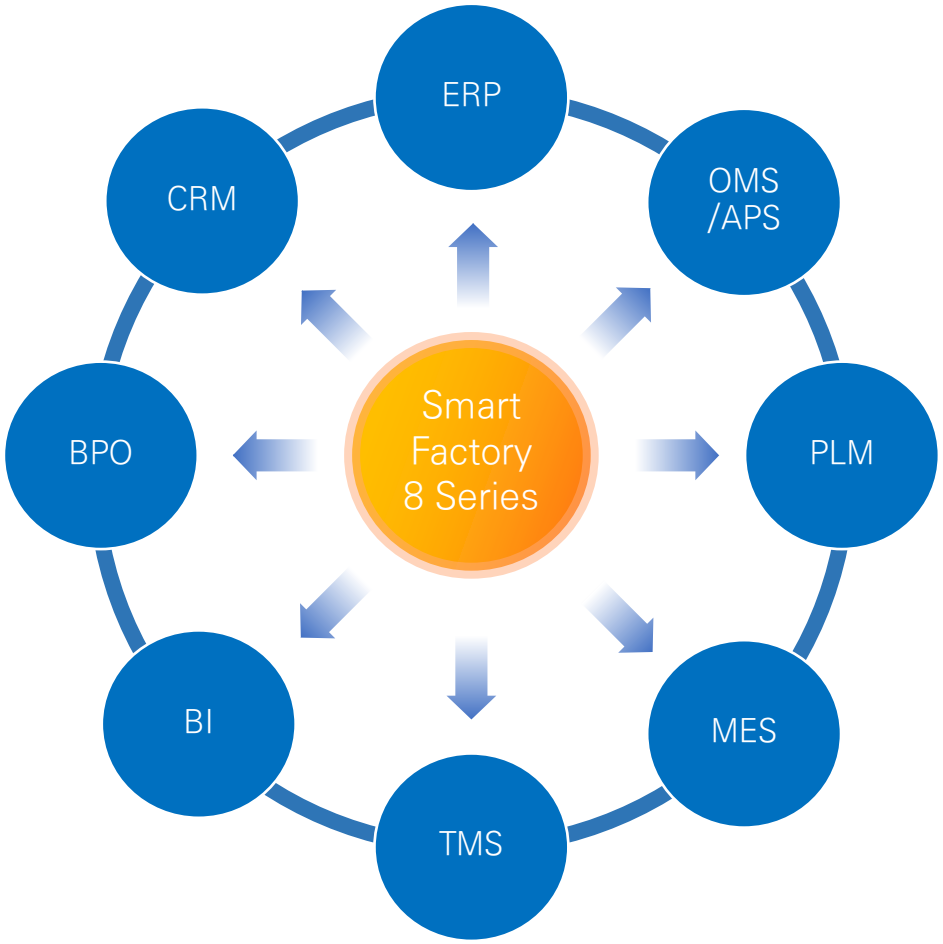
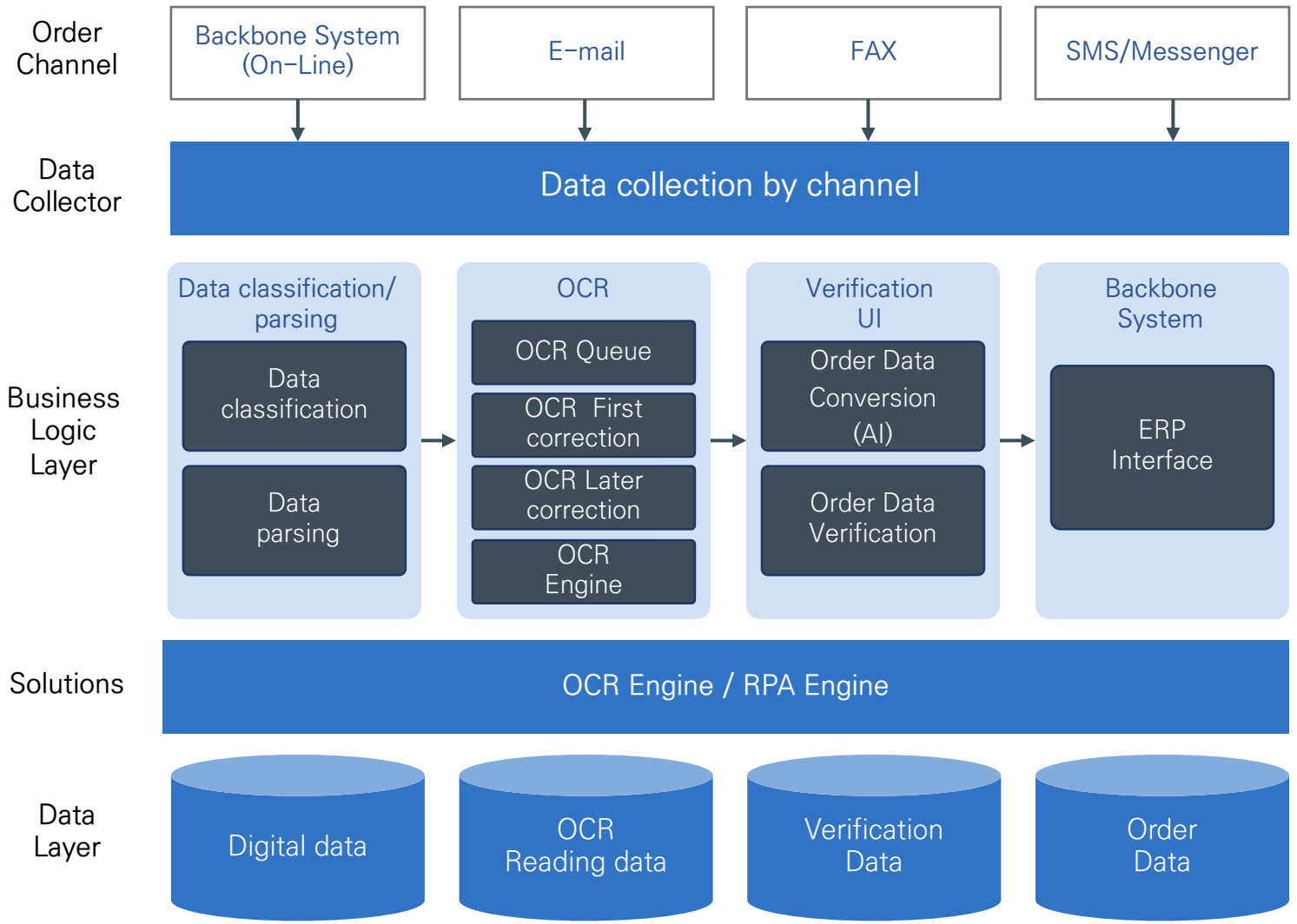
01. Vision



- A Company with Consulting capabilities that designs and proposes all the systems required for the client's ICT transformation
- Development/Consignment Mgmt. Center operating on behalf of system operation and maintenance(AMO)
- SI Company for B2B Smart Factory responsible for comprehensive consulting, follow-up and step-by-step advancement

OMS (Order Management System)

- The order data from analog channel, for example Fax, email, etc, is automatically processed by using OCR and AI technology.
- Constructs an order management system that automatically collects order data for each channel and classifies data and automatically generates order data with an AI program based on Python.

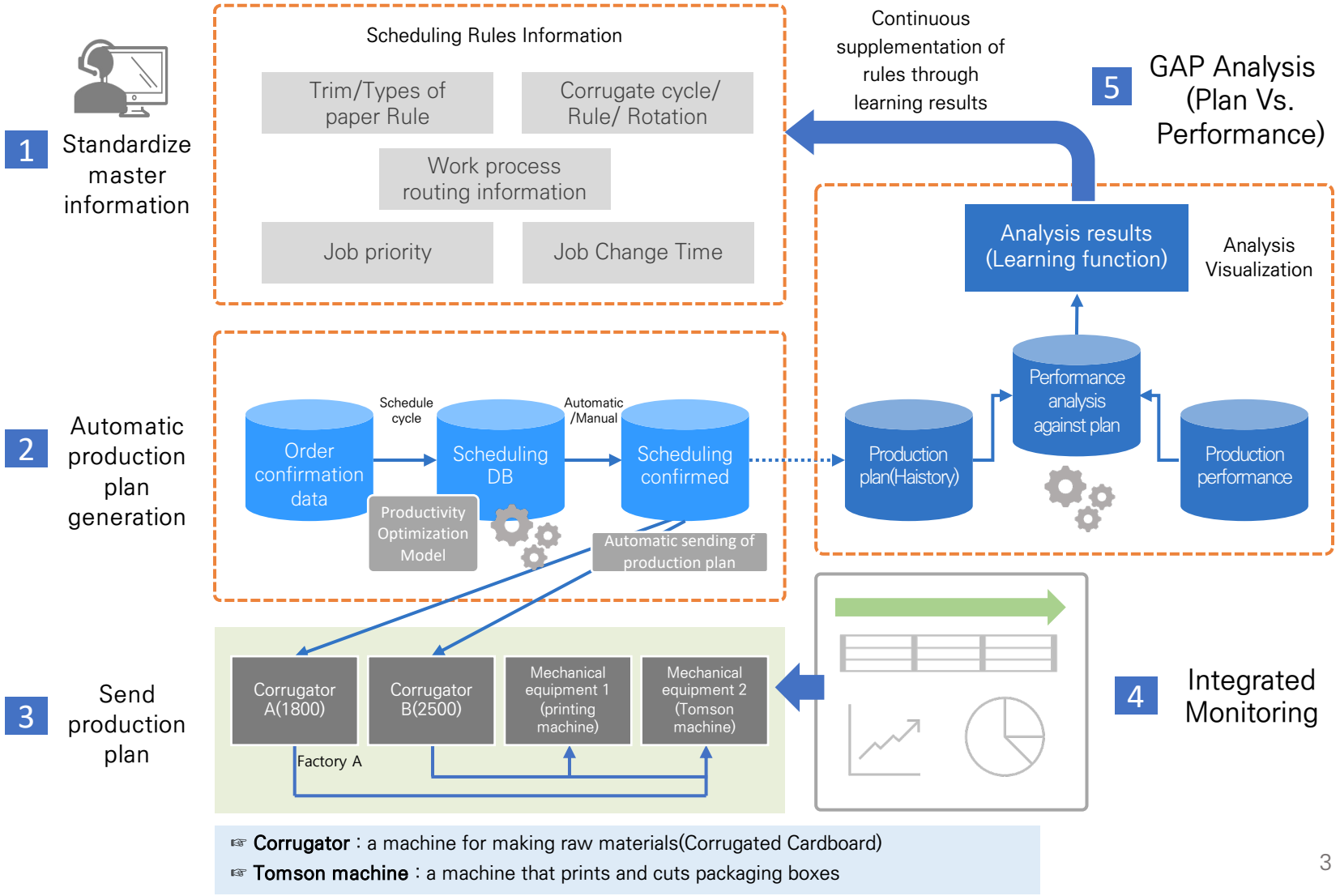


03. RTS

RTS (Real Time Scheduling)

- Based on the order data received every day from the custom production factory, a real-time production plan is automatically established according to the facility capabilities of each factory and production instructions.
- A real time scheduling system for a model optimized with rule-based production planning and learning functions.

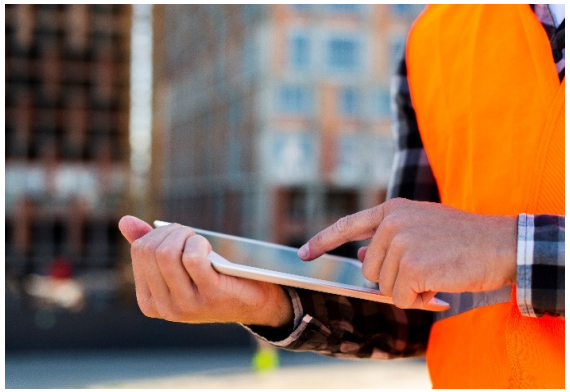
Auto Scheduling System



☞ **Corrugator** : a machine for making raw materials(Corrugated Cardboard)
☞ **Tomson machine** : a machine that prints and cuts packaging boxes

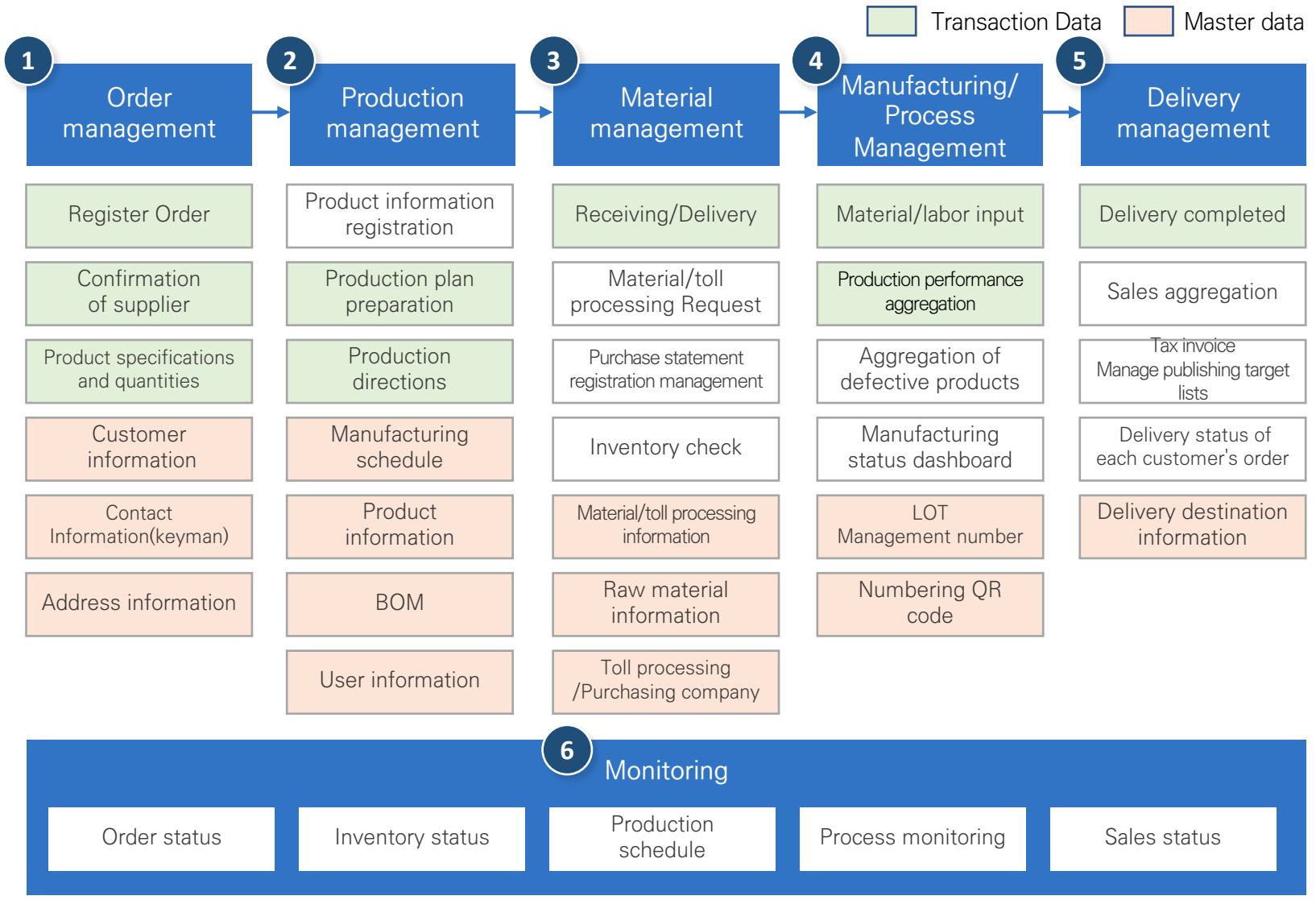
04. MES

MES (Manufacturing Execution System)



- Smart factory management in the paperless environment is possible by utilizing kiosks, barcode/QR codes, and tablet devices for manual production management such as material warehousing, delivery order, production order, and quality control etc.

- Construction of an integrated production management system for material management, process management, and goods delivery management based on orders and production plan results

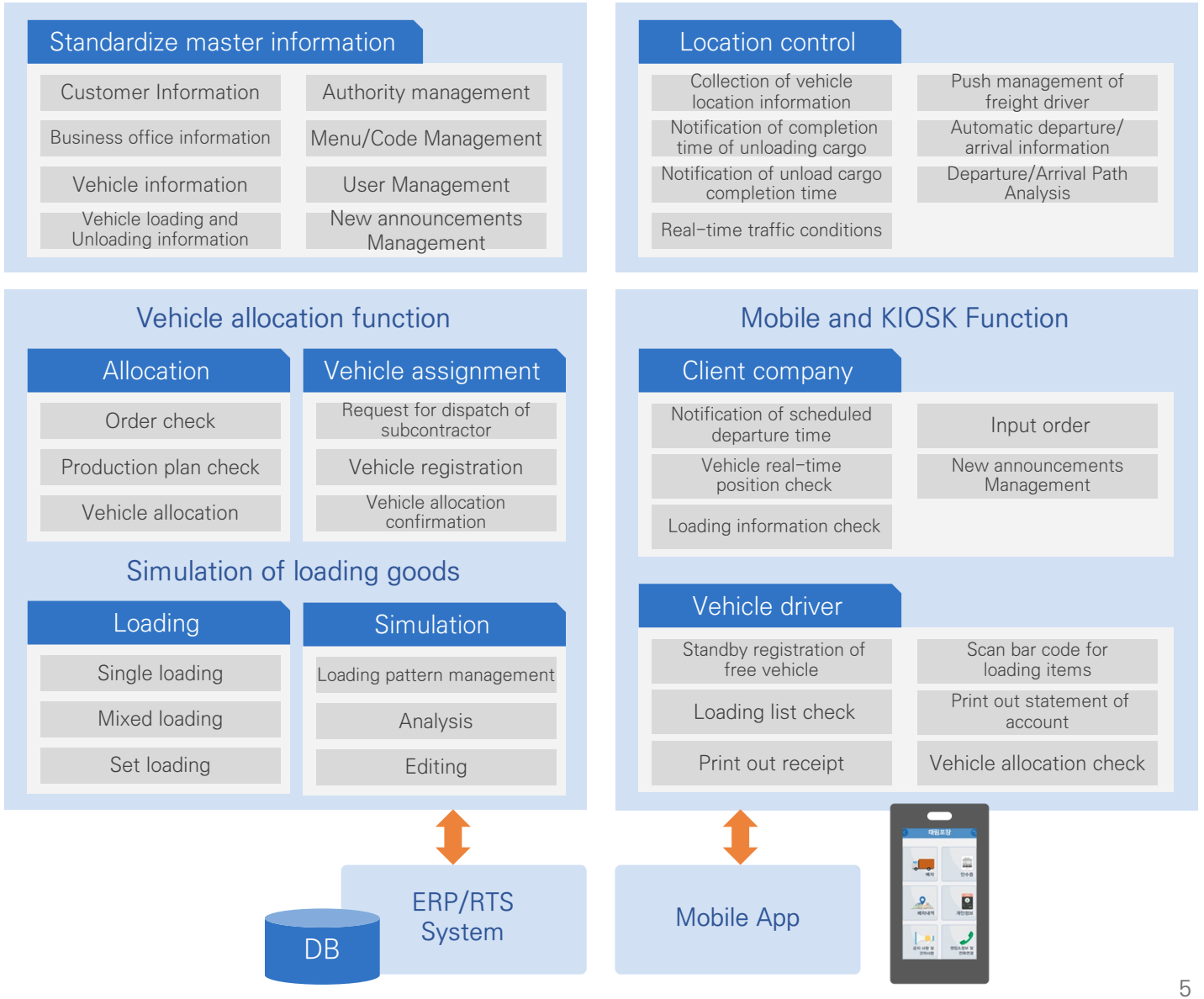


05. TMS

TMS (Transport Management System)

- After production is completed, the delivery date to customer, the delivery place to the customer and the load capacity are calculated, and the transportation plan is automatically matched with the standby vehicle, and the load cargo/unload cargo/delivery process is managed through APP.

- Establishes transportation plan according to vehicle size(1 ton, 2.5 ton, 5 ton, etc.) by calculating customer delivery time, delivery location, and delivery volume based on completed orders Manages vehicle driver(APP.) in real time Automatically sends notification messages to customers before departure



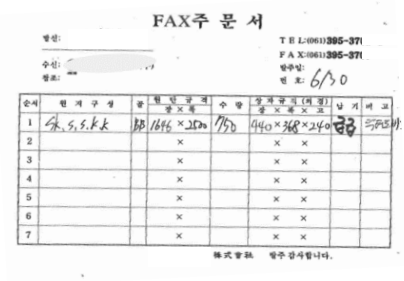
06. Reference_Corrugated Cardboard Manufacturing T CO.(1/3)

Background on the drive

Different order forms, order registration errors, inconsistent productivity, and manual-based production management were hindering business efficiency and customer satisfaction improvement.

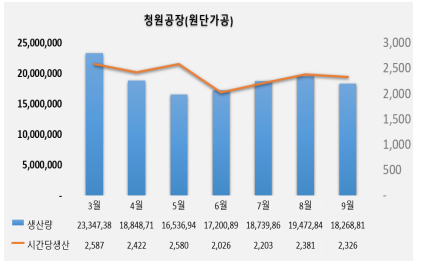
Many errors to get and place an order

- Accurate data to get an order and place an order must be entered, but frequent errors in registering order data occur due to manual input processing such as telephone or fax
- Frequent unnecessary communication between companies for error verification and correction
- Standardization system such as Flute, Trim, Paper Kind Code, Size, Score, etc. is urgently needed



Low productivity and operational efficiency

- Frequent job change due to small quantity batch production.
- Lack of productivity due to manual-based production
- Inconsistent productivity based on seasonal order volumes
- Difficulty to grasp the progress of the preceding process



Manual-based production management

- Although manufacturing facility of packaging box has been invested, no partner company is implementing the production management system
- Manual inventory management, quality management, and delivery management make site managers more burdened with work
- Delay and error in customer response due to manual identification of production progress

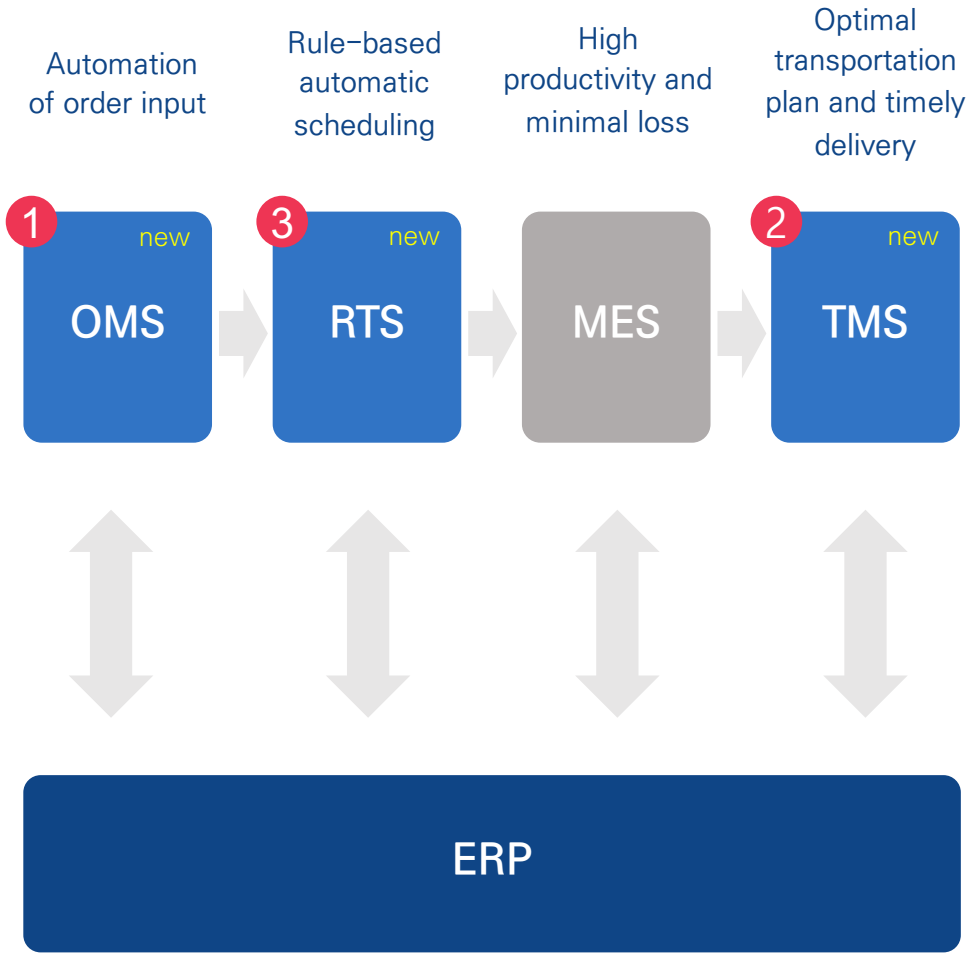
06. Reference_Corrugated Cardboard Manufacturing T CO.(2/3)

Direction

Manufacture based on value chain → Standardize master information → Digital Innovation in Production Management → Strengthening manufacturing competitiveness / Quick decision-making

- Standardize master information
  (Product information, facility management, various codes, etc)
- ERP/MES system Enhancement
- Interface between new Systems & legacy(ERP/MES)
- Construction of automatic system of order input (OMS)
- Construction of Automatic dispatch system (TMS)
- Construction of rule-based automatic scheduling system(RTS)

Digital Transformation for Corrugated Cardboard Packaging and Manufacturing Operation



** The number indicates the order of introduction of new system*

06. Reference_Corrugated Cardboard Manufacturing T CO.(3/3)

Effect

Improvement manufacturing process, manufacturing quality and work efficiency, advancement of production site management level

Improves production site flow

Possible to

- get progress of production
- get the overall situation at the production site
- manage raw materials
- reduce return products and comply
- with delivery dates

Improves the quality of products

Possible to

- prevent errors of work
- find error quickly in field
- help keep track of products and processes

Improves production site work efficiency

Possible to

- increase work efficiency through paperless work and operations
- promote automation of production sites
- increase efficiency of facility maintenance
- Flexible response of system in process change