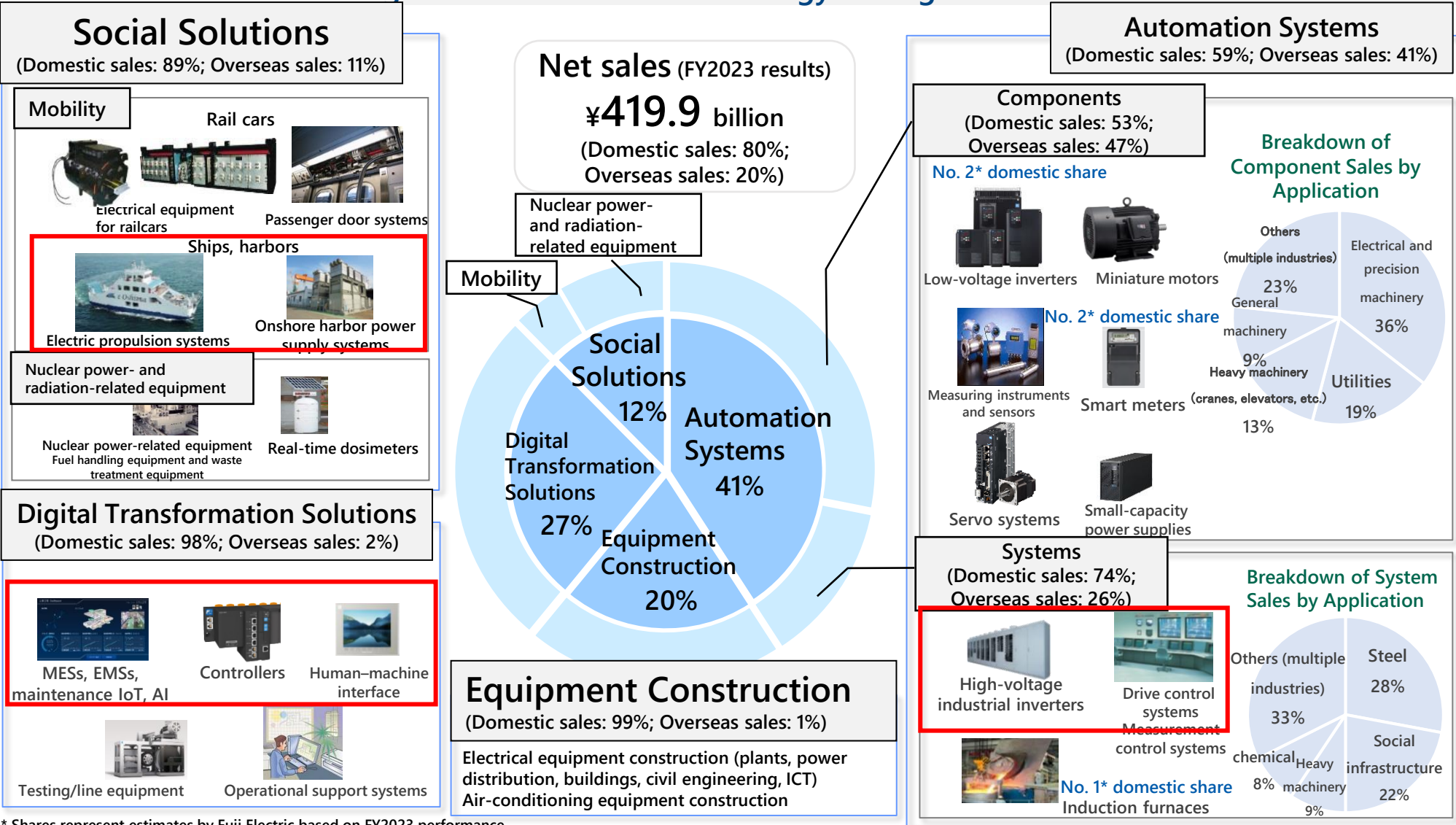


Industry Business Group Research and Development looking toward FY2026

Kentaro Toyama
General Manager, Development Division

July 11th, 2024

Contributions to decarbonization through components, systems, and digital transformation and energy management solutions

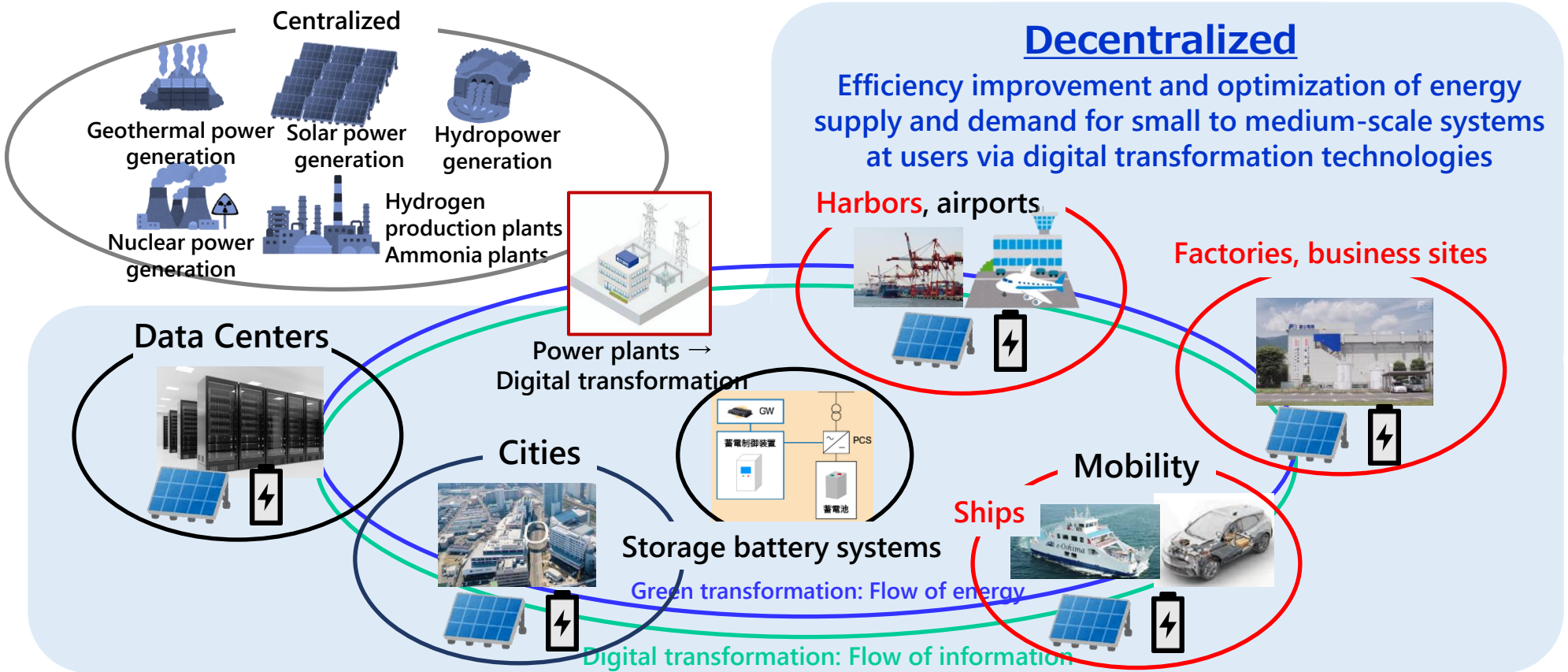


* Shares represent estimates by Fuji Electric based on FY2023 performance.

Note: Percentages of total net sales figures represent FY2023 results and are calculated before deduction and adjustment for inter-segment sales.




Operating Environment and Business Opportunities

Need for decarbonization of both centralized and decentralized power supplies in order to achieve green transformation

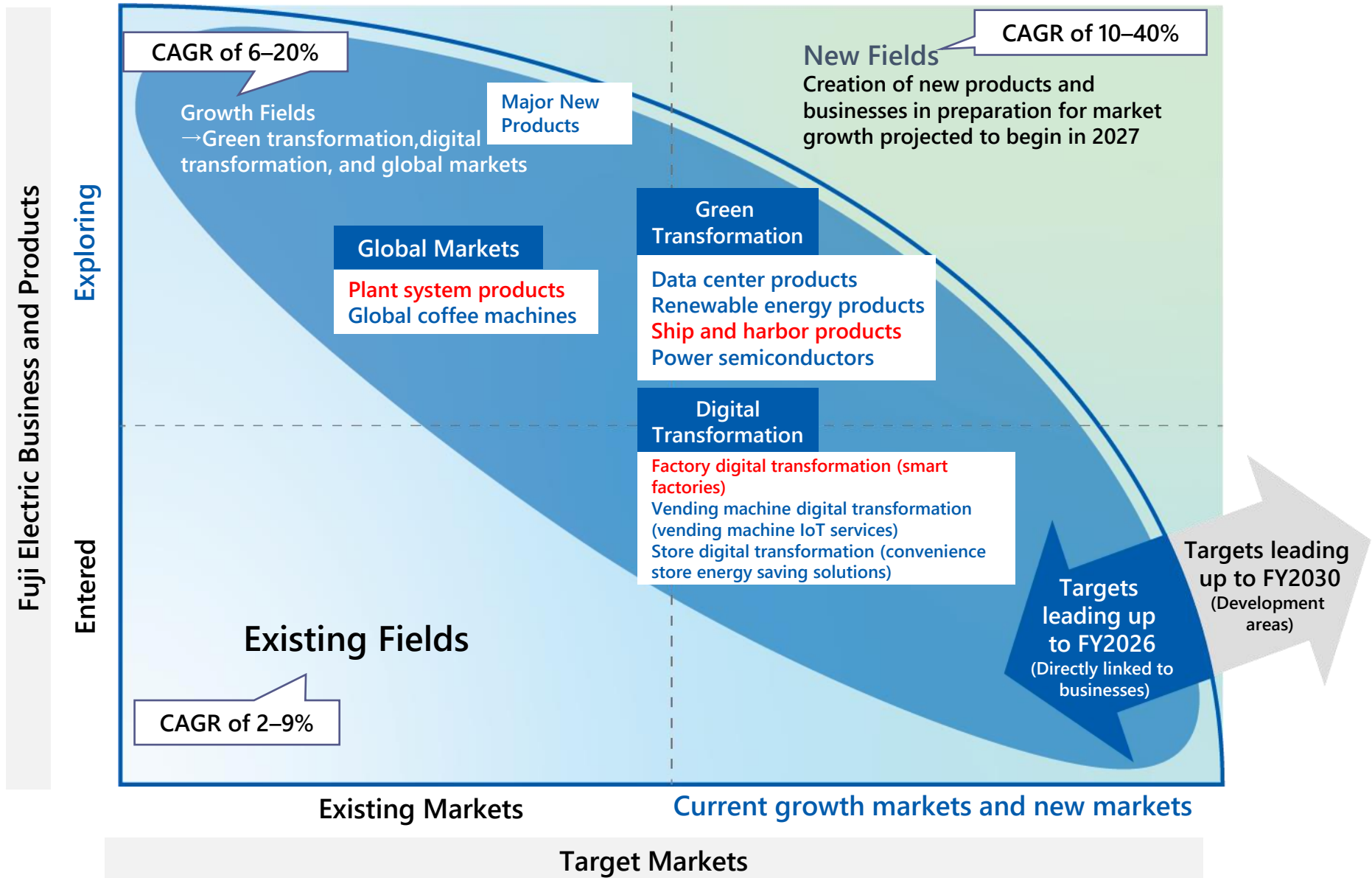


- Rapid electrification of ships and harbors amid carbon neutrality initiatives
- Accelerated production process decarbonization initiatives (electrification, fuel conversion) in plant system field
- Increased need for automation and process reforms at factories and business sites due to workforce contraction and digital transformation trend

Market Outlook and Technical Requirements

| Business | Market Outlook and Technical Requirements (FY2024–2026) | | | |
|----------------------------------|---|------------------------|---|---|
| Automation Systems | Plant systems | Market Outlook | <ul style="list-style-type: none"> • Accelerated production process decarbonization initiatives (electrification, fuel conversion) • Firm investment in steel and nonferrous metal plants, oil, ceramics, harbor cranes, and other fields |  |
| | | Technical Requirements | <ul style="list-style-type: none"> • Space saving via increased stack capacity and optimized equipment compositions • High stack output through refined cooling structures | |
| Social Solutions | Ships, harbors | Market Outlook | <ul style="list-style-type: none"> • Popularization of low-emissions and emissions-free ships following institution of new greenhouse gas emissions regulations • Accelerated efforts to create carbon-neutral ships |  |
| | | Technical Requirements | <ul style="list-style-type: none"> • More compact and space-efficient electricity conversion equipment • Synchronized connection to and disconnection from onboard generators • Selectable voltage and frequency functions to ensure stable power supply | |
| Digital Transformation Solutions | Smart factories | Market Outlook | <ul style="list-style-type: none"> • Increased need for automation and process reforms due to workforce contraction and digital transformation trend |  |
| | | Technical Requirements | <ul style="list-style-type: none"> • Factory production process monitoring made possible using digital transformation technologies • Improvement of production efficiency and increases to energy efficiency aimed at reducing CO₂ emissions | |

Key Development Themes of FY2026 Medium-Term Management Plan



Offering systems capable of contributing to decarbonization and labor saving at plants

- Reduction of power losses and CO₂ emissions via industrial drives



Information in Today's Presentation

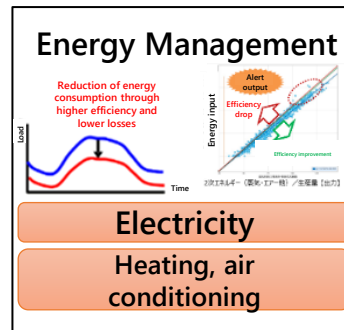


Premium efficiency motors



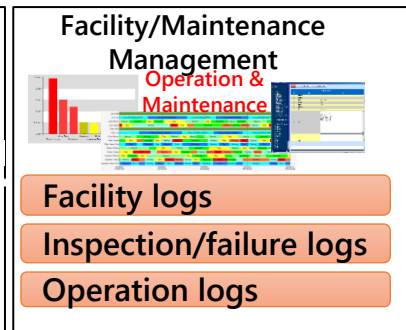
FRENIC-GS industrial drive

Industry-leading performance, functionality, and safety



- Electricity
- Heating, air conditioning

Energy efficiency improvement → CO₂ emissions reductions



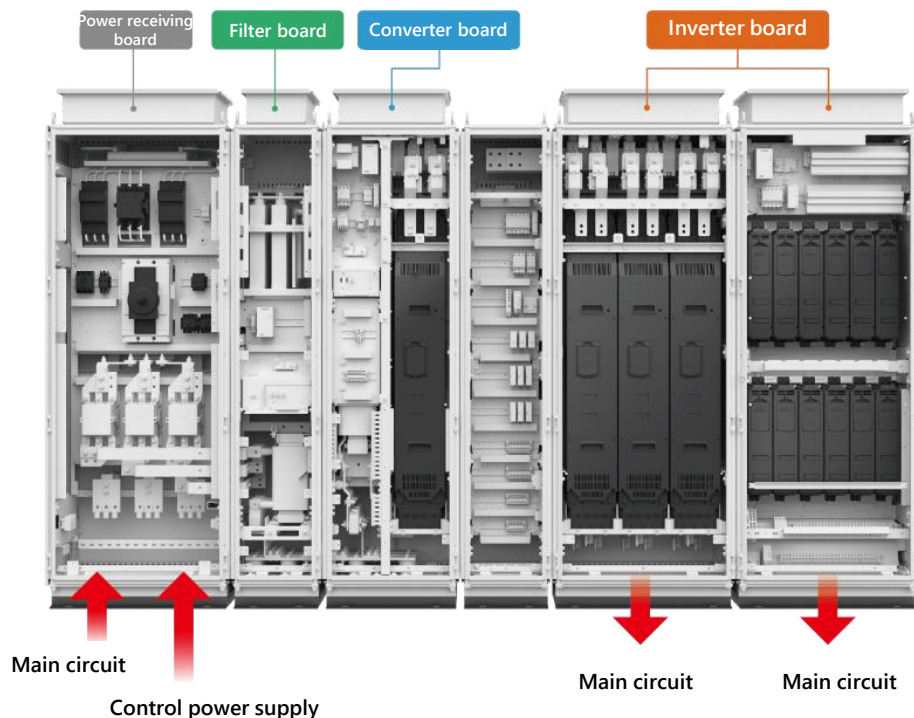
Downtime reduction → Labor savings
Comprehensive traceability management → Safety and security



Industrial drive featuring industry-leading performance, functionality, and safety

Features and Strengths of FRENIC-GS

- Slim stack design reducing space requirements
- Multi-drive structure with DC distribution to increase capacity and allowing for easy maintenance
- Capacity for large data transmissions contributing to digitalization of monitoring, etc.



Applicable Fields

- Plant systems (steel, paper, pulp, cement, cranes, etc.)

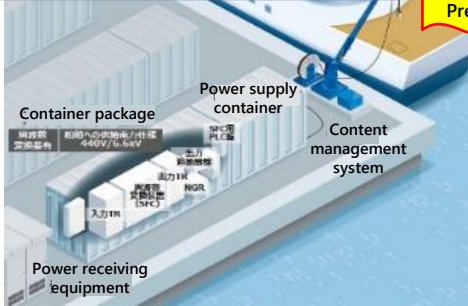
Customer Needs

- Productivity improvement
- Safety and security
- CO₂ reduction

Provision of electrified ship and harbor systems to help create carbon-neutral ports

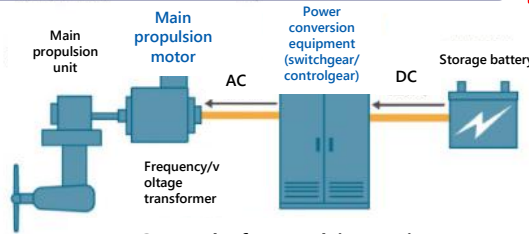
Onshore Power Supply System

Information in Today's Presentation



Electric Ship Propulsion System

Information in Today's Presentation

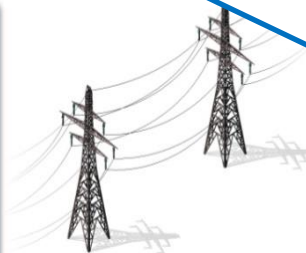


Control of propulsion unit (propeller) via power conversion



Blue letters represent Fuji Electric products.

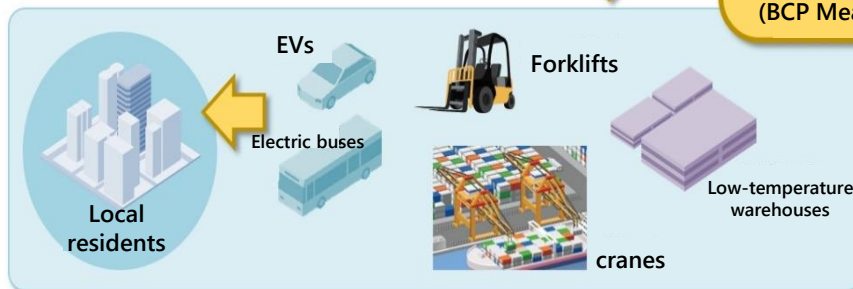
Renewable/New Energy



Normal Conditions



Emergency Conditions (BCP Measures)



Onshore power supply system contributing to reduced CO₂ emissions at harbors

Features and Strengths of Onshore Power Supply System

- Ability to use up to eight 1.25 MVA units simultaneously (max. capacity of 10 MVA)
- In-container storage allowing for shortened lead time prior to start of operation
- Lower labor requirements for connecting cables and increased safety



Container package



Capable management system
delivered to Kobe City
(operation commenced
in April 2024)

Applicable Fields

- Onshore power supply system

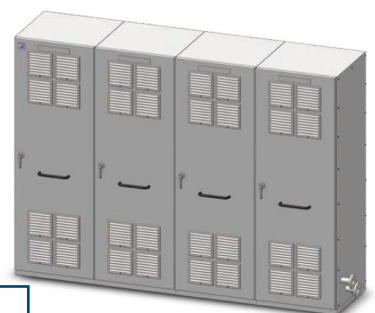
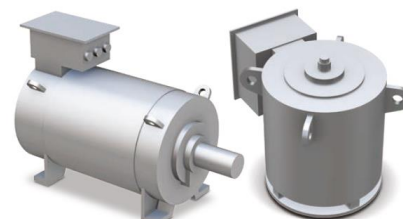
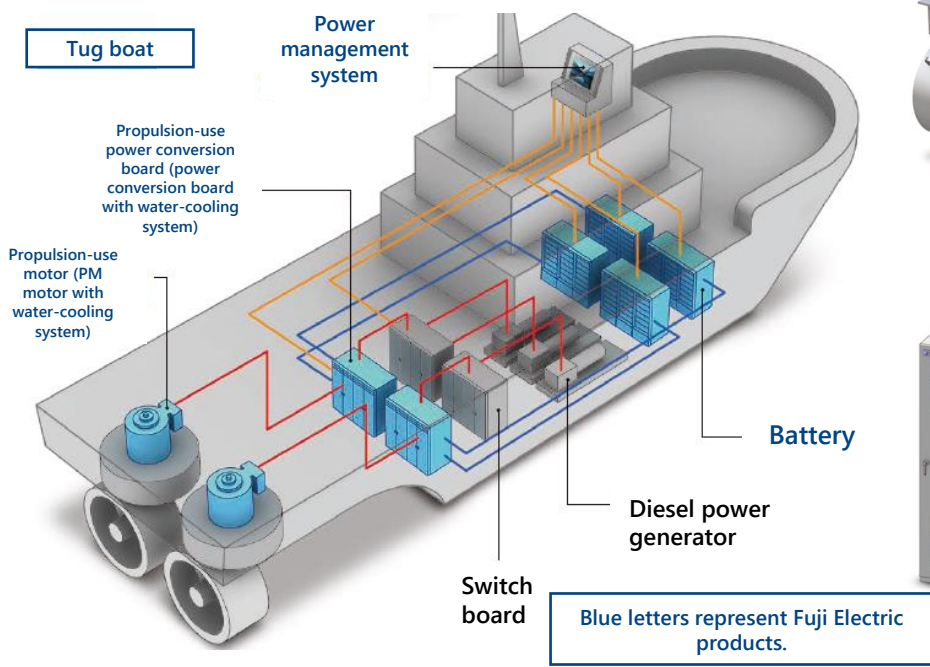
Customer Needs

- Shortened installation times
- Lower labor requirements for connecting cables between ships and onshore equipment and increased safety

Propulsion system coupled with battery contributing to reduced CO₂ emissions from small vessels

Features and Strengths of Electric Ship Propulsion System

- Unparalleled compact design allowing for installation in small vessels with limited space (PM motor with water-cooling system)
- Compatible with flushing with clean water, no need for dedicated flushing water; water-cooling system reducing need for onboard air conditioning (power conversion board with water-cooling system)



Applicable Fields

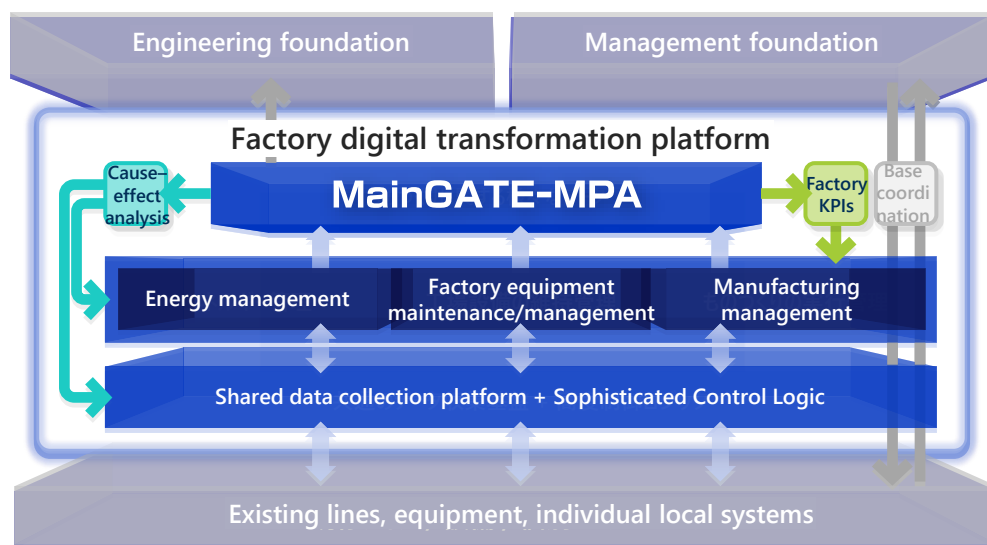
- Electric ship propulsion systems

Customer Needs

- Emissions-free ships
- Compact equipment
- Low levels of noise and vibrations

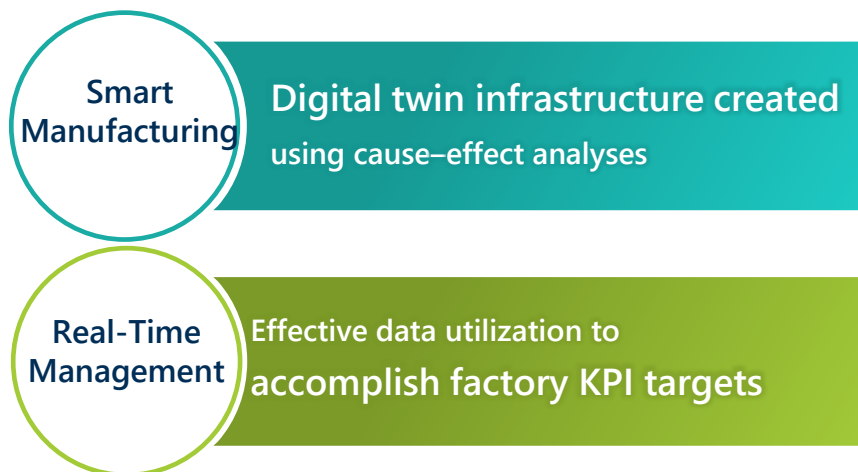
Factory digital transformation for achieving real-time management and smart manufacturing

Factory Digital Transformation (Comprehensive MES/MOM Diagnosis)



MES: Manufacturing execution system

MOM: Manufacturing operations management

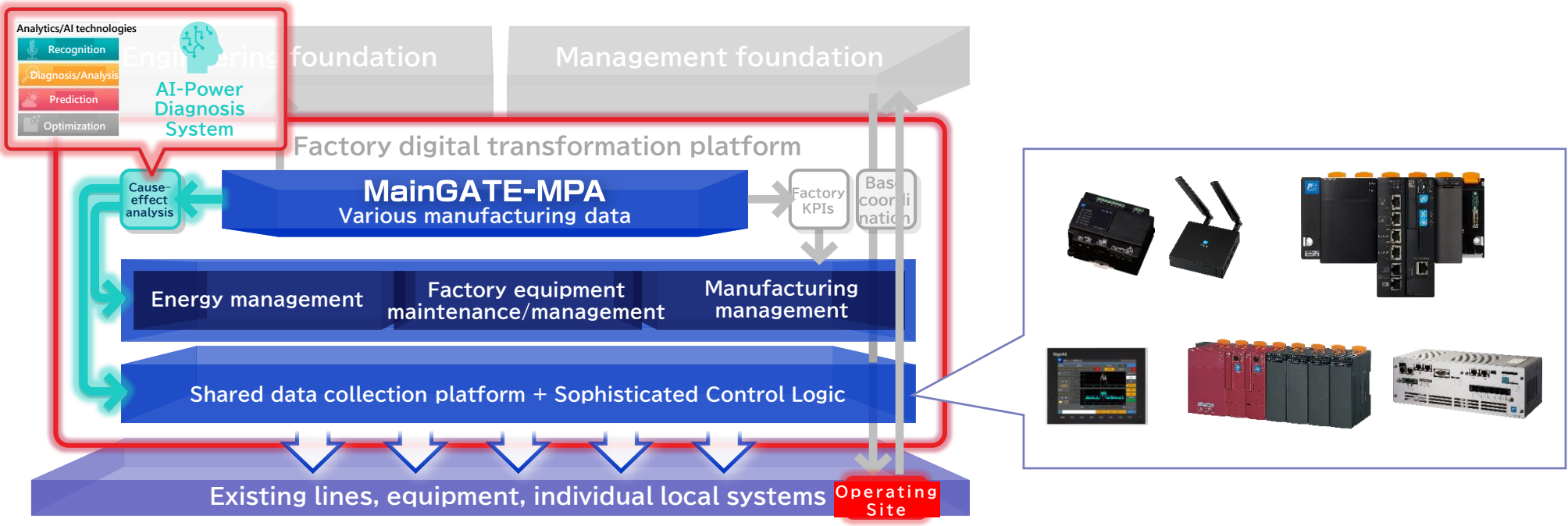


Cross-area consolidation of various manufacturing data using Fuji Electric's MainGATE-MPA comprehensive analysis platform

Proposing visualization and resolution offerings of production line issues utilizing data collection and AI-powered data analysis by IoT equipment

Features and Strengths of Factory Digital Transformation Platform

- Combination of extensive sensor array and IoT equipment to collect actual site data
- Highly convincing resolution measures proposed using analytics and AI technologies
- Cooperation with inverters and other energy-saving equipment to optimize productivity and CO₂ emissions levels



1. Statements made in this documents or in the presentation to which they pertain regarding estimates or projections are forward-looking statements based on the company's judgments and assumptions in light of information currently available. Actual results may differ materially from those projected as a result of uncertainties inherent in such judgments and assumptions, as well as changes in business operations or other internal or external conditions. Accordingly, the company gives no guarantee regarding the reliability of any information contained in these forward-looking statements.
2. These documents are for information purpose only, and do not constitute an inducement by the company to make investments.
3. Unauthorized reproduction of these documents, in part or in whole, is prohibited.