Feature | Mid-Term Business Plan 2014

Creating Prosperity for our Next 100 Years

The Mid-Term Business Plan 2014 (MBP14) was launched with the goal of ensuring the abil our Group to achieve sustainable growth and solid profit stability. Simultaneously, we are progressing with multi-faceted measures that enable us to adapt to changing times.

Business Environment Affecting our Business

Economic growth in emerging countries and transitions to new energies are resulting in new business opportunities.

Point 01

Economic Growth of Emerging Countries in Asia Continues to Lead World Economic Growth

For the emerging countries in Asia to achieve further growth in the future, these countries require the development of industrial infrastructure such as electric power and logistics networks, which are the foundation for corporate operations, as well as core social infrastructure.

MES possesses the technology to support the backbone of infrastructure development, including civil engineering and plant engineering technology for port and power plant construction. We will offer our technology to emerging countries and companies targeting emerging markets as we aim for mutual growth.



Point 03

Change in Industrial Structure Caused by **Shale Gas Revolution**

The global development of shale gas has resulted in increased demand for liquefied natural gas (LNG) carriers. Moving forward, we expect the diversification of ocean shipping of energy, including ethane and ethylene gas (LEG), a byproduct of shale gas. We also are seeing increased investments in the construction of new petro-chemical plants in North America, where shale gas offers raw material merits. MES will aggressively respond to the changes in industrial structure caused by the shale revolution.



Point 02

Acceleration of Energy Shift to Natural Gas and Renewable Energy

Fears about global warming and the rising prices of fossil fuel have led to a global focus on renewable energy. In both domestic and international markets, the markets for renewable energy, including solar power, wind power, and bio fuel, are expected to grow. MES will increase our efforts in technology development related to wind power, solar energy, biogas, and biomass.



Point 04

Drafting a Basic Plan on Ocean Policy in Japan

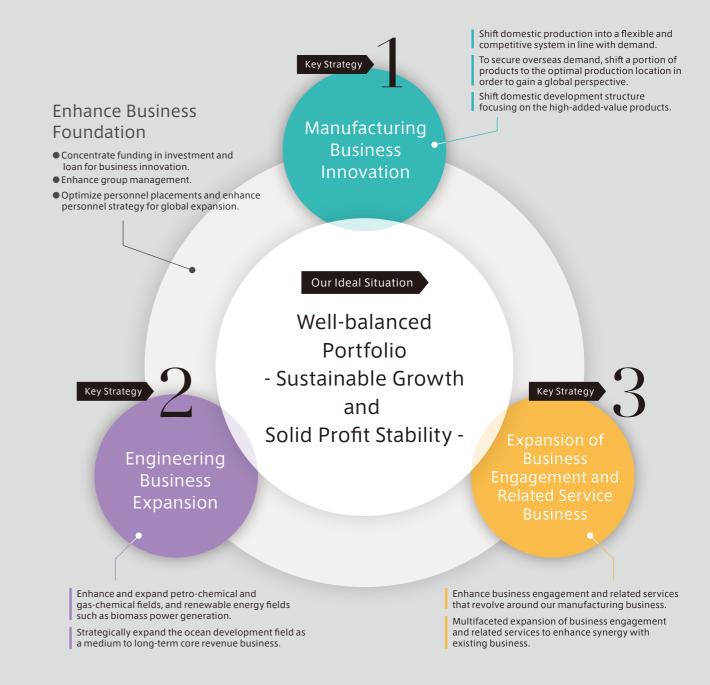
In May 2013, the Japanese Cabinet Headquarters for Ocean Policy drafted the five-year Basic Plan on Ocean Policy. From fostering industries related to ocean resource development and floating wind power generation, this outlines policies promoting the use of ocean energy, including wave power, tidal currents, ocean currents, and ocean temperature differences. Moving forward, the country is expected to take a proactive role in accelerating the growth of the ocean engineering market.

From shipbuilding technology to floating production storage and offloading System (FPSO) vessels for marine oil and gas and offshore structure construction, MES possesses the technology to make significant contributions to this field.



Our Ideal Situation and Basic Policies

Aiming to achieve our Ideal Situation, MES has outlined three key strategies. We are work to redefine our business domains and innovate our business model.

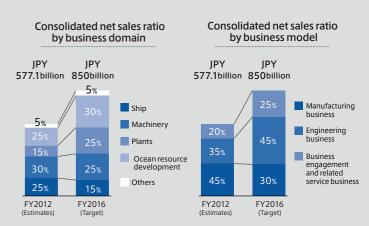


Quantitative targets (FY2016)

Net Sales	JPY 850 billion
Operating Income	JPY 30 billion
ROIC*	8%
Interest-bearing Debt	JPY 200 billion

* ROIC (Return on Invested Capital) = (Operating Income + Interest and Dividend Income) / (Shareholders' equity + Interest-bearing Debt) *Assumptions: Current exchange rate ¥95/US\$, ¥125/€

Business domain and business model innovation



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Key Strategy

Manufacturing Business Innovation

We will transition to a streamlined system of domestic production that is aligned with demand. This will entail shifting a portion of products to optimal production sites in order to gain a global perspective. Our domestic development structure will shift to the development of high value added products.



Vital Strategy

Vital

Strategy

- Shift into a production system corresponding to the business environment (shipbuilding, marine engines).
- Differentiation by low-fuel-consumption / eco-friendly technology (shipbuilding, marine engines, industrial machinery and cranes)
- Differentiation by systems; software-hardware combined (crane and port logistics).
- Expand and enhance ocean development field (FPSO, FLNG*). *floating liquefied natural gas facility

Action

Building a Production System for Ocean Projects

At our Chiba Works, we construct FPSO vessel hulls that are handed over to MODEC, Inc. In addition to general commercial ships, we also are progressing with initiatives related to ocean projects and the engineering



Strengthening Low-fuel-consumption / **Eco-friendly Products**

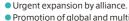
We construct and supply the ME-GI, a highly heat-efficient, large-scale, two-stroke, low-speed duel fuel diesel engine that is capable of using natural gas and crude petroleur



Producing a Fully-Automated Crane

that is equally efficient in emergency situations. Eliminating the diesel power generator set achieves zero ns and contributes greatly to CO2 reductions.





Promotion of global and multifaceted procurement in MES group.

Strengthening of middle mass production in energy-saving machinery

Establishment of optimal production location in crane and process machinery.

Development of

Global Business Structure

Establishment of MES Asia

Accelerating and expanding global business develop we established our wholly-owned subsidiary Mitsui Engineering & Shipbuilding Asia Pte. Ltd. ("MES Asia") in Singapore. Identifying the rapidly growing ASEAN nations as a vital market, we will offer after-sales services, life cycle solutions services, and local construction of chemical plants to existing local customers.



Established MES UBI Heavy Industries Co., Ltd.

We established the joint venture company MES UBI Heavy Industries Co., Ltd. as a production center for process machinery (pressurized containers) in Southeast Asia. We have received numerous inquiries from within Vietnam and neighboring countries in Southeast Asia.

Action

Vital

Strategy

Development and

Key Components Business

Expansion of



High-pressure compressors for hydrogen stations by KAJI TECHNOLOGY CORPORATION

Capital Investment in KAJI TECHNOLOGY CORPORATION

and highly-functional components

We executed a capital investment agreement with KAJITECHNOLOGY CORPORATION, a specialist in compact reciprocating processors (RC). Combined with our specialty of large-scale RC, we will expand business through technology exchanges and expanding compressors sales targeting hydrogen stations and RC for ocean projects, both areas that are expected to see



Involvement in Compressor Segment for Ship and Marine Equipment

We developed and began sales of a high-pressure compressor for fuel gas supply systems used in LNG carriers. We now are able to offer this npressor as a set with the ME-GI.



First New Orders Received for **Binary Power Generation Facilities**

The binary generator segment is expected to grow in the future in light of revisions to the Electric Utility Industry Law. Our VPC binary generator heat energy ranging from 70 to 250°C.



Engineering Business Expansion

In the engineering business, we will work to stabilize our revenue base and we are strategically expanding the ocean development field as a medium and long-term driver of revenue.



Strategy

- Enhance cost competitiveness, ability to accomplish projects
- Exploitation and expand markets.
- South-eastern Asia [chemical, infrastructure]
 North America [chemical]
- ☐ CIS and emerging countries [power generation (BWSC), chemical]
- ☐ West Africa, Brazil [ocean resources development]



Order received for low-density polyethylene plant

Sasol received an order for the detailed design, parts procurement, and construction support work related to the high-pressure components of a 420,000 ton/year low-density polyethylene production facility in Lake Charles, Louisiana. Through this project, this will solidify our company's position as a leading partner in the field of LDPE manufacturing facility construction.



MODEC, Inc. received order for floating production storage and offloading system (FPSO) project in Brazil.

MODEC, Inc. received new order for FPSO Charter Project for Tartaruga Verde & Tartaruga Mestiça Oil Fields in offshore

This FPSO will achieve daily production equivalent to . 150.000 barrels of crude oil and 176 million cubic feet of gas. with a storage capacity of barrels of crude oil.



Vital Strategy

Expand renewable energy fields (biomass/biogas power, wind power, etc.).



Biomass electricity sales business in BWSC in England

Burmeister & Wain Scandinavian Contractor A/S (BWSC) established the joint venture company BWSC Power Corporation Limited in England to conduct electricity sales based on biomass-based electricity sales. Providing total services from engineering to equipment procurement, installation and construction, and test operation, the company will oversee operations and maintenance for a 15-year period.



Order received for multi-function plant for food waste feed production and biogas power

Mitsui Zosen Environment **Engineering Corporation** received an order from Alfo E Corporation for the Jonanjima No. 2 Feed Center (provisional name) food waste recycling plant. Moving forward, we will contribute to the formation of a recycling-based society through the construction of food waste recycling plants.



Enhance Group Internal Partnerships and Global **Operations Structure**

Vital Strategy

- Strengthen internal partnership with subsidiary companies (MODEC, BWSC, overseas subsidiaries).
- Expand overseas bases (North America, Singapore), enhance common business process.

Contract with EPC for Chemical Plants

and Group companies.

ExxonMobil Chemical Asia Pacific (EMC AP) placed an order for a production facility for halobutyl rubber and special resins for adhesives. This facility planned for construction on the Jurong island in Singapore and would be one of the largest such facilities in the world. The contract is a total outsourcing agreement for engineering, procurement, and construction (EPC) that will be executed by MES



Personnel Exchanges between Subsidiaries and **Business Partnerships**

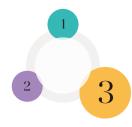
We conduct engineering personnel exchanges between overseas plant subsidiaries.



Established Crane Sales Division in MES Asia

We provide customers in Southeast Asia with proposals for port cranes.

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Key Strategy

Expansion of Business Engagement and Related Service Business

We are implementing reforms to shift from a business model of merely selling products and plants to a complex business model that offers after-sales services, operations and maintenance, and emergence in business operations as well as the total support for the life-cycles of products.



Vital Strategy

- Enhance and expand overseas bases of techno service business (South-eastern Asia, India, Middle East).
- Expand services of techno service (package maintenance, engineering service).
- Expand crane service and enter into business of terminal facility.
- Enter into business of marine engineering fields in overseas.

Action



Establishment of MES-KHI YURA DOCK

We established and operate the MES-KHI YURA DOCK CO., LTD, in partnership with Kawasaki Heavy Industries, Ltd. The goal of this collaboration is to capture demand for repairs of LNG carriers in North America shale gas transport market, which is expected to grow in the future. Fusing the technology and personnel of both companies will increase competitiveness, improve profits, and secure the future sustainability of our business.



MTME: MES Technoservice Middle East W.L.L



MTA: MES Technoservice Machinery Construction Logistics Industry and Trade Corporation

Established industrial machinery after service office in Qatar and Turkey.

We established offices in Doha, Qatar and Ankara, Turkey for the purpose of providing after-sales services (regular repairs, maintenance, and parts sales) for industrial machinery (compressors, steam turbines, etc.) constructed and delivered by MES.

Previously, after-sales services for industrial machinery delivered overseas was limited to the provision of parts but moving forward we will be involved in on-site construction (regular repairs, maintenance).





- Improve earning through the life cycle of ocean resources development field.
- Enhance upstream and downstream services of renewable energy fields.

 (Tochnical integration, project dovelopment, ORM, business operation)
- (Technical integration, project development, O&M, business operation)
- Develop the life cycle engineering service in cooperation with global bases of chemical plant fields (North America, Singapore).



Piogas Dlant



Participation in Japan's Largest Biogas Energy Generation Business

We established the special purpose company BETSUKAI Biogas Power Generation in collaboration with Betsukai-cho in Hokkaido. We became involved in the construction and management of Japan's largest biogas energy generation facility. This will promote industries using regional biomass and renewable energy based on local recycling. which will tie into local job creation and stimulate the local economy. This BETSUKAI Biogas Power Generation business uses livestock waste supplied by local dairy farmers to create methane gas produced via fermentation as fuel to produce electricity. We will conduct a business selling electricity over the 20-year period based on the electricity Feed-in



Solar Energy Business: Launching EPC Business

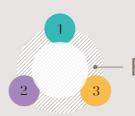
We constructed a mega solar plant (large-scale photovoltaic power generation facility) inside the Oita Works to start an energy generation business. Generated electricity will be sold to KYUSHU ELECTRIC POWER CO., INC. over a 20-year period.



High-Performance Hybrid Retrofitting for Transtainers

In August 2014, we completed hybrid retrofitting for five transtainers in Thailand. This project improves energy conservation performance and updates electricity storage system to maximize the energy distribution of generators and batteries.

We received the Green Energy Award for this project.



Enhance Business Foundation

1 Inv

Investment Plan

Vital Strategy

Business Investments

Concentrate funding in high strategic fields.

Fiscal 2014 Progress

- Decision to increase MBP14 capital expenditures budget to adapt to business environment changes.
- Nonconsolidated: 15 billion yen > 30 billion yen (upgrades to Tamano Works, Oita Works, and Chiba Works)
- Subsidiary: 8 billion yen > 40 billion yen (overseas crane production subsidiary)

R&D nvestments

- Funding in high growth / strategic projects.
- Shift from generating new large-scale projects that diverge from core business to a strategy of business expansion in the related-service business.
- Create the foundation of expansion and promotion for ocean development business (Gather comprehensive ability of MES group).
- Financing and Investments
- Create priorities of investment through the position of corporate management (M&A, etc.), speed up business innovation.
- Tighten assessment of investments for financial strength.

- The Research & Development Headquarters conducts development based on a Group-wide structure of cooperation to make visible contributions to improving revenues from core products.
- (1) Next-generation promotions plant (2) Vessel noise evaluation technology (3) Development of environment-friendly diesel engines
- (4) Development of fuel gas supply systems (FGSS)
- (5) Crane vibration prevention and reduction technology
- (6) Biogas plant performance improvements
- Project list for MBP14 period and prioritization of projects
- Capital investment in KAJI TECHNOLOGY CORPORATION

2 Enhance Group Management

Vital Strategy

- Enhance involvement and support to MES group alliance projects.
- Enhance management practices by concentration to core business.

Fiscal 2014 Progress

- Sale of semiconductor manufacturing business and withdrawal from lithium ion cell positive electrode material manufacturing business.
- Consolidated the newly established Infrastructure Business Department with the Mitsui Zosen Steel Structures Engineering Co., Ltd., DPS Bridge Works Co., Ltd., MES Testing & Research Center Co., Ltd., and Mitsui Thanglong Steel Construction Co., Ltd. to strengthen our social infrastructure business.
- Consolidated MES Tokki Co., Ltd., Tamano Engineering Co., Ltd., and Uno-kogyo, into MES Tokki Co., Ltd. to serve as a uniform entity for ship engineering and contribute to machinery plants.

Optimize

Optimize Personnel Placements and Enhance Personnel Strategy for Global Expansion

Vital Strategy

- Flexible personal placement in MES group.
- Secure, develop, and utilize human resources and enhance personnel management affairs for global expansion.

Fiscal 2014 Progres

- Reorganized and strengthened personnel at Machinery & Systems Hq. and Engineering Hq.
- Enhanced overseas personnel development.

4 E

Enhancing Corporate Governance

Fiscal 2014 Progress

- Incorporation of executive director system.
- -Separated and clarified roles by establishing Board of Directors as a management decision-making and supervisory function and the executive directors to serve as a business management function
- -Business management is assigned to executive directors to speed up processes
- Increase in outside directors.

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