

2011 Mid-term Business Plan

May 17, 2011



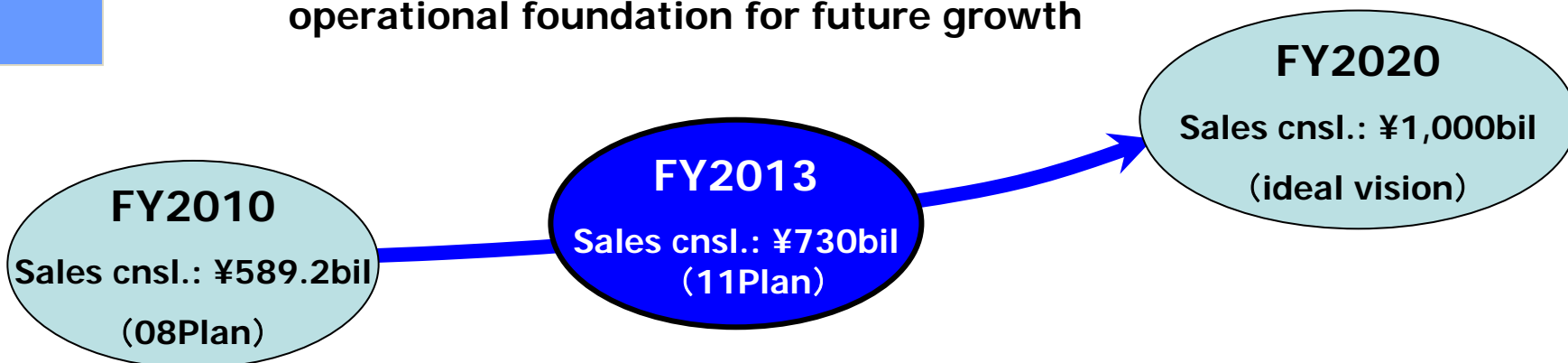
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1. Prepare to win a place in the tough business environment
2. Strengthen business foundation for further growth
(Sales consolidated in FY2020 : ¥1,000bil)

scenario

- *Growth in emerging countries⇒Big opportunity of our growth*
 - **Expand and diversify business portfolio with comprehensive capability and technology of MES group in global, energy and environment friendly business sector in emerging countries**
- *Continuing big supply-demand gap in maritime sector⇒Tough competition in ship new building market (incl. marine engines)*
 - **Strengthen competitiveness for survival and enhance operational foundation for future growth**



2. 08 Mid-term Plan - Summary and Review



✓ Promoted expansion strategy

✓ Faced difficulty in adaptation to globalization and rapid change in environment

Main policies in 08 Plan: "Deepening and development of core/growing businesses"
 "Creation of new business"
 "Deepening of management foundation"

achieved in 08 Plan

- Sales/profit in FY2009: record high
- Improvement of production facility
 - Shipyards: for CSR/PSPC
 - Machinery factory: expansion
 - Crane factory: upgrading
- Development of human resources
 - Craftsman's college / Engineering seminar
- Promotion of new business
 - Production of cathode material for LIB
 - Development of less-CO2 emission vessel
 - Construction of pilot plant of Bio-ethanol

to be achieved in 11 Plan

- *Sales/profit in FY2010: short to planned*
- *Faced difficulty in adaption to rapid change in environment*
- ➔ Application of flexible management
- *Faced difficulty in adaption to globalization*
- ➔ Application of cross functional operation
Development of globalized resources
- *Belated commercialization of new business*
- ➔ Acceleration development of energy and environment friendly business

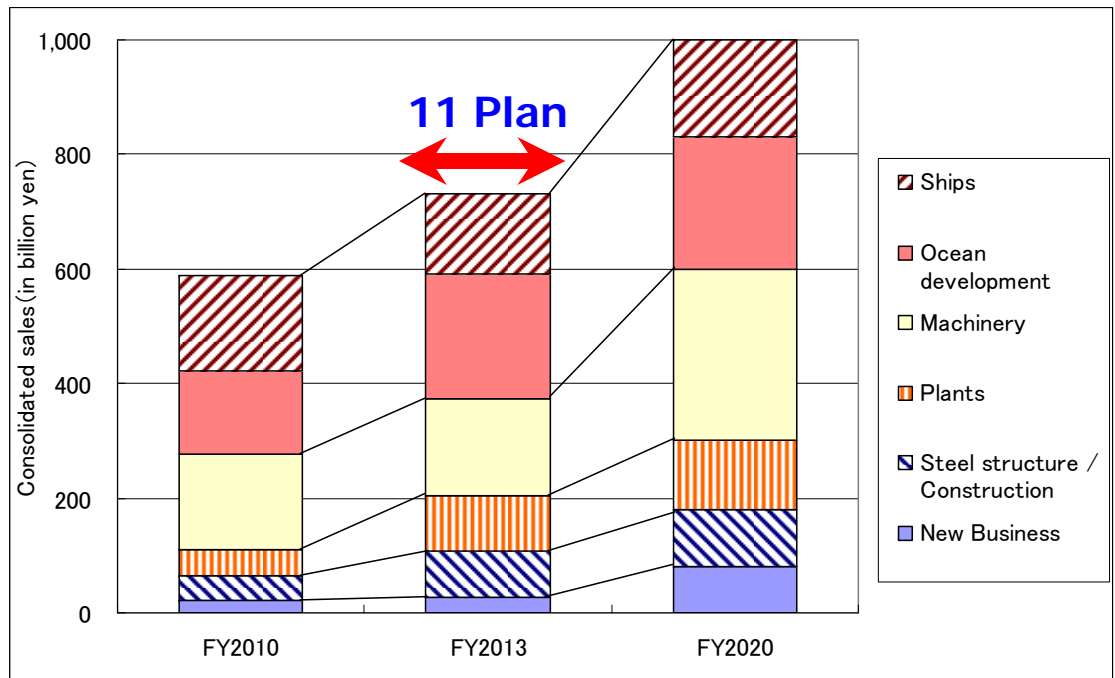
	actual			plan
	FY2008	FY2009	FY2010	FY2010
Sales	686.7	766.0	589.2	800.0
Profit	26.9	43.0	38.9	54.0

Unit: bil yen

Ideal status of MES in Year 2020

1. MES is known to the world as a credible corporate brand
2. MES is transformed into one that has a strong business portfolio and thereby contributes to the society

Expansion of global business ⇒ achieve ¥1,000bil sales!



Sales by segment in 2020

- ① Marine ¥400bil
(+¥90bil) *
- ② Machinery ¥300bil
(+¥130bil) *
- ③ Plant Eng. ¥120bil
(+¥70bil) *
- ④ Steel Const. ¥100bil
(+¥60bil) *

* (increase compare to FY2010)

4. Market Review

Market	Potential	MES advantage	Approach / Challenge
①Marine <¥400bil>	Growing: FPSO/FLNG Diversify: Energy resource Demand rise: Big project in Atlantic and Brazil	<ul style="list-style-type: none"> •Proven performance of MODEC •Synergy in technologies within group companies 	<u>Development:</u> Next-generation FLNG/FPSO <u>Strengthening:</u> Risk management for large / complex projects
②Machinery <¥300bil>	Demand rise: Environment oriented technology Growing: BRICS/S.E Asia	<ul style="list-style-type: none"> •Eco-friendly products •Proven quality and service 	<u>Enhancement:</u> Alliance formation <u>Diversification:</u> Global production / service network
③Plant Eng. <¥120bil>	Demand rise: Eco-friendly energy Growing: BRICS/S.E Asia	<ul style="list-style-type: none"> •Proven performance in EPC 	<u>Development:</u> New customers <u>Diversification:</u> New business areas
④Steel Const. <¥100bil>	Growing: BRICS/S.E Asia	<ul style="list-style-type: none"> •Proven performance in constructing power plant 	<u>Enhancement:</u> Comprehensive capability and technology of group companies <u>Strengthening:</u> Risk management for large project

※<Year 2020 Sales consolidated>

【Basic policy】

Prepare to win a place in the tough business environment and strengthen our business foundation for further growth toward “creation of newly-born MES”

【Main missions】

1. Expand environment friendly/energy business by exercising integrated power
2. Expand business by developing global market
3. Strengthen product competitive edge to prepare for tough business environment
4. Strengthen management foundation

【Consolidated quantitative target】

Unit: bil yen

	FY2010	FY2013	FY2020
Sales	589.2	730.0	1,000.0

① Expand environment friendly/energy business by exercising integrated power

- expand ocean development business
- accelerate promotion/development of environment/energy business
- accelerate development of energy-saving technology

② Expand business by developing global market

- exercise comprehensive capability of MES group
- penetrate into emerging countries/markets
- promote alliance formation

③ Strengthen product competitive edge to prepare for tough business environment

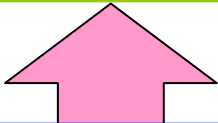
- enhance cost competitiveness
- trim fixed costs

④ Strengthen management foundation

- enhance management system/technology foundation
- develop/globalize human resources

① Expand environment friendly/energy business by exercising integrated power
 (1) expand ocean development business

Participation in large/complex projects

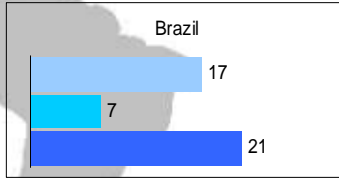
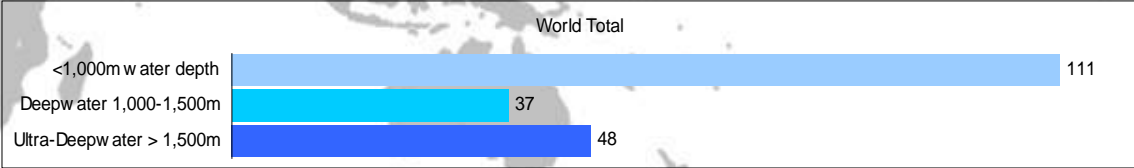
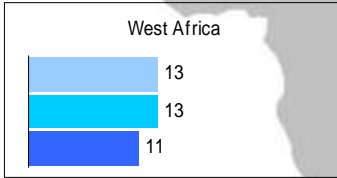
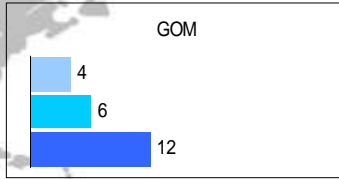
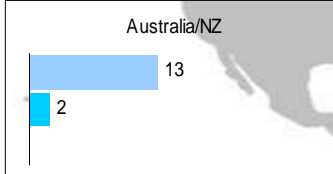
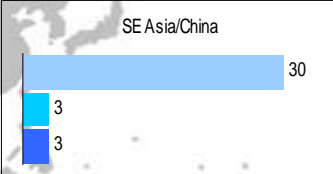
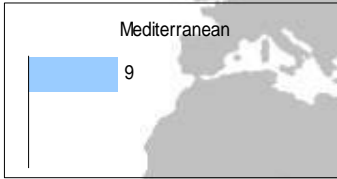
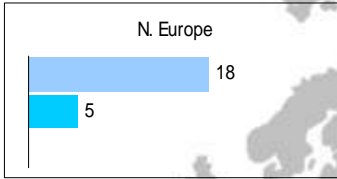


Comprehensive Capability

Synergy in technologies **Enhanced risk management**

MES

MODEC



Number of planned oceanic oil & gas projects as of Nov., 2010

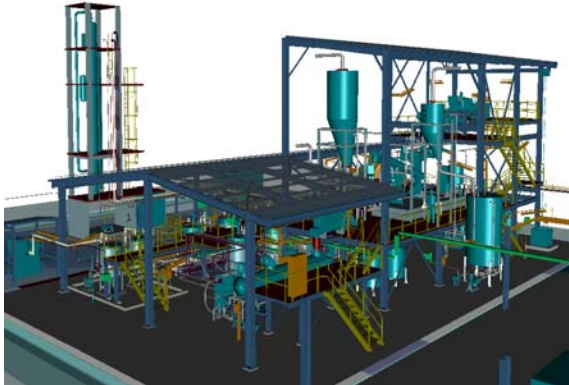
data by MODEC

① Expand environment friendly/energy business by exercising integrated power

(2) accelerate promotion/development of environment/energy business



Lithium Ion Battery (LIB) Cathode Material
(photo: LIB material / demo-car with our product)



Bio-ethanol Production from non-edible biomass
(photo: demo-plant)

- LIB Cathode Material Production: Year 2011- Construction of commercial plant
Year 2012- Start of commercial production
- Bio-ethanol Production: Year 2011- Technical verification in Malaysia
Year 2013- Start of commercial production
- CSP (Concentrated Solar Power) : Entry into EPC business of CSP plant construction though experiences of F.S.
- NGH: Starting Pilot Project utilizing accumulated gas hydrate technologies
- ORC (Organic Rankine Cycle) power generation unit:
Year 2012 - Demonstration on a research ship
Year 2013 - Commencement of business expansion


① Expand environment friendly/energy business by exercising integrated power

(3) accelerate development of energy-saving technology

Application to group companies

● development of less-CO₂ emission vessel

Application to other type ships



neo Supramax 66BC launched into market

① Expand environment friendly/energy business by exercising integrated power

(3) accelerate development of energy-saving technology

- Accelerate development of energy-saving Container Crane and Unloader

Energy saving PT



Hybrid TT



e-TT



Enhance energy-saving product range

- Less Power Consumption
 - Optimize main operation
 - Use energy saving device
 - Optimized components

- Less Fuel Consumption
 - Use regenerative power
 - Big capacity 2nd battery
 - Downsized engine

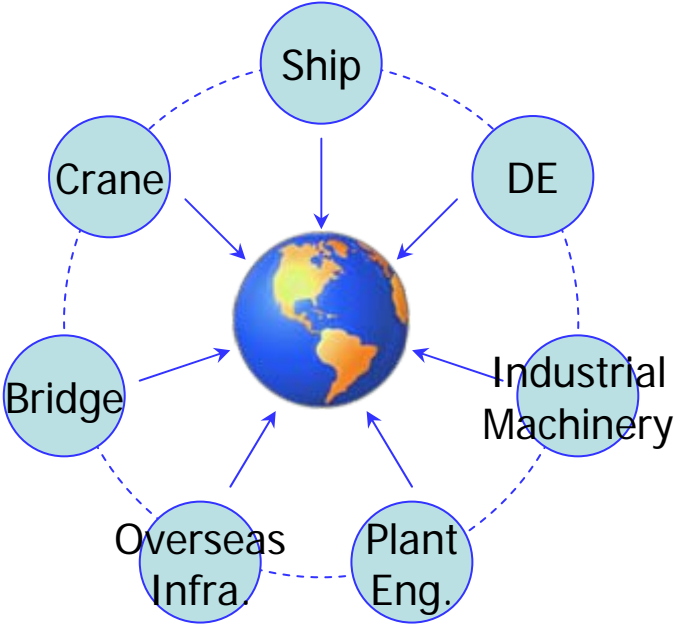
- Motorized TT, Less Power
 - Use regenerative power
 - Ground power by bus bar
 - No fuel engine

- Accelerate development of Axial Blower by prototype for CO2 reduction at steel mill
- Accelerate development of environmental technology for Diesel Engine by testing engine

② Expand business by developing global market

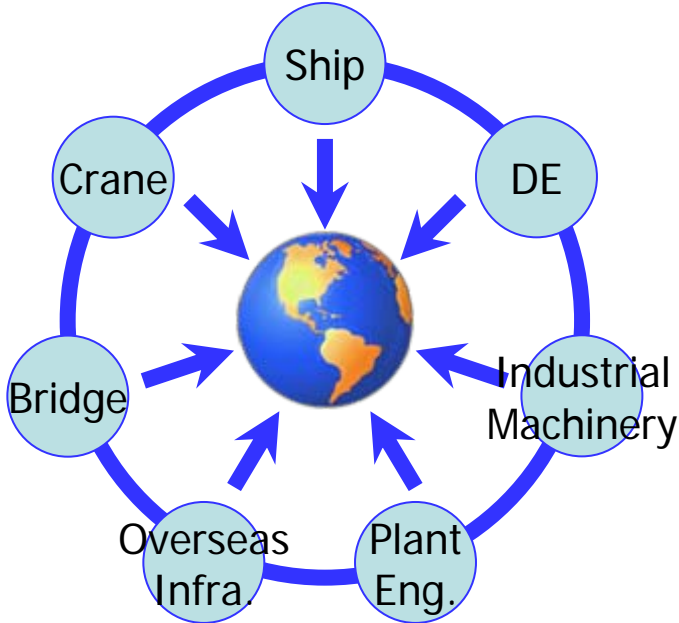
(1) Exercise comprehensive ability of MES group

Present



- Individual execution by headquarter

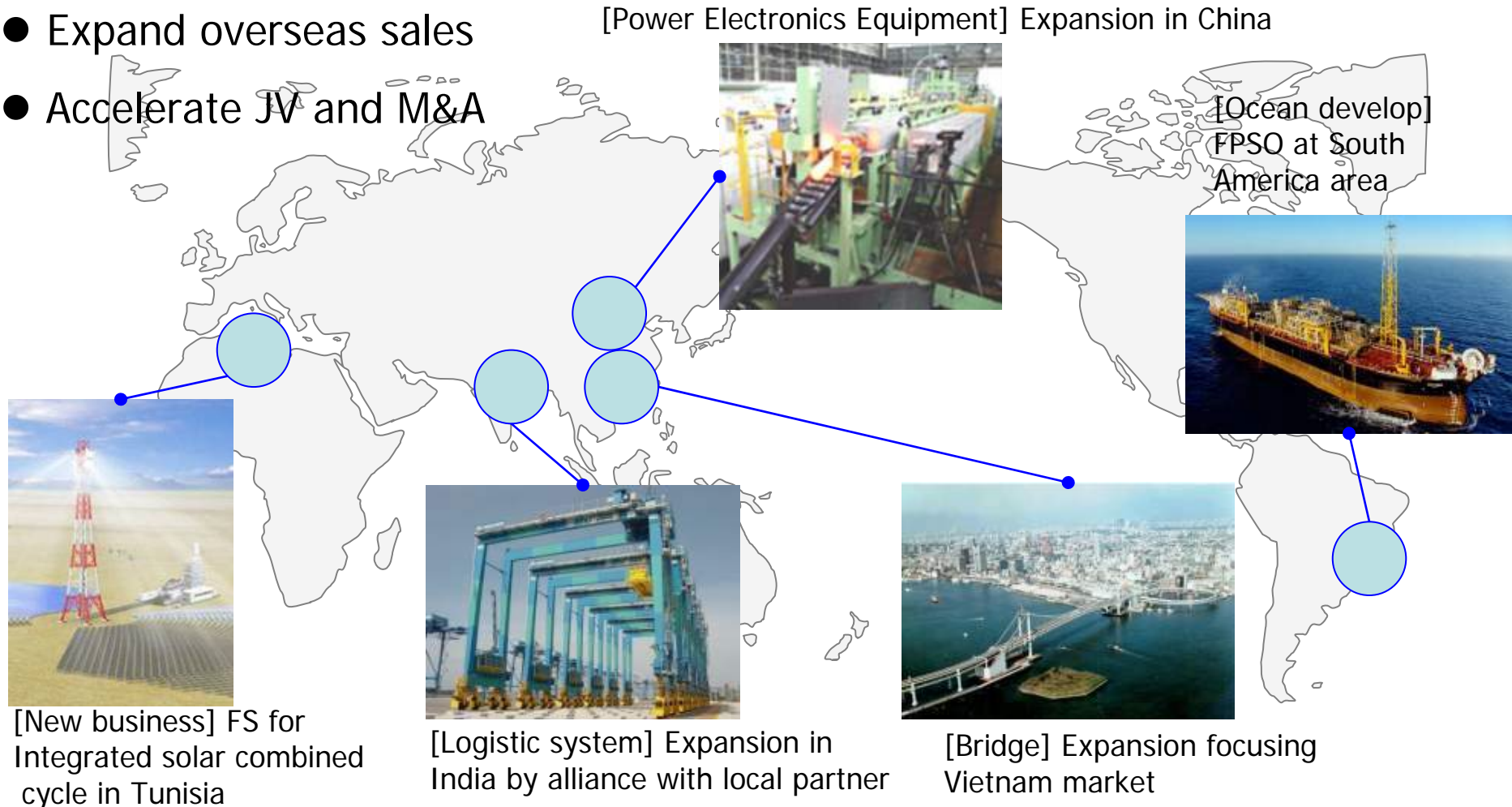
2011 Mid-term Business Plan



- Co-work overseas business between headquarters
- Establish "Global Strategy Office"

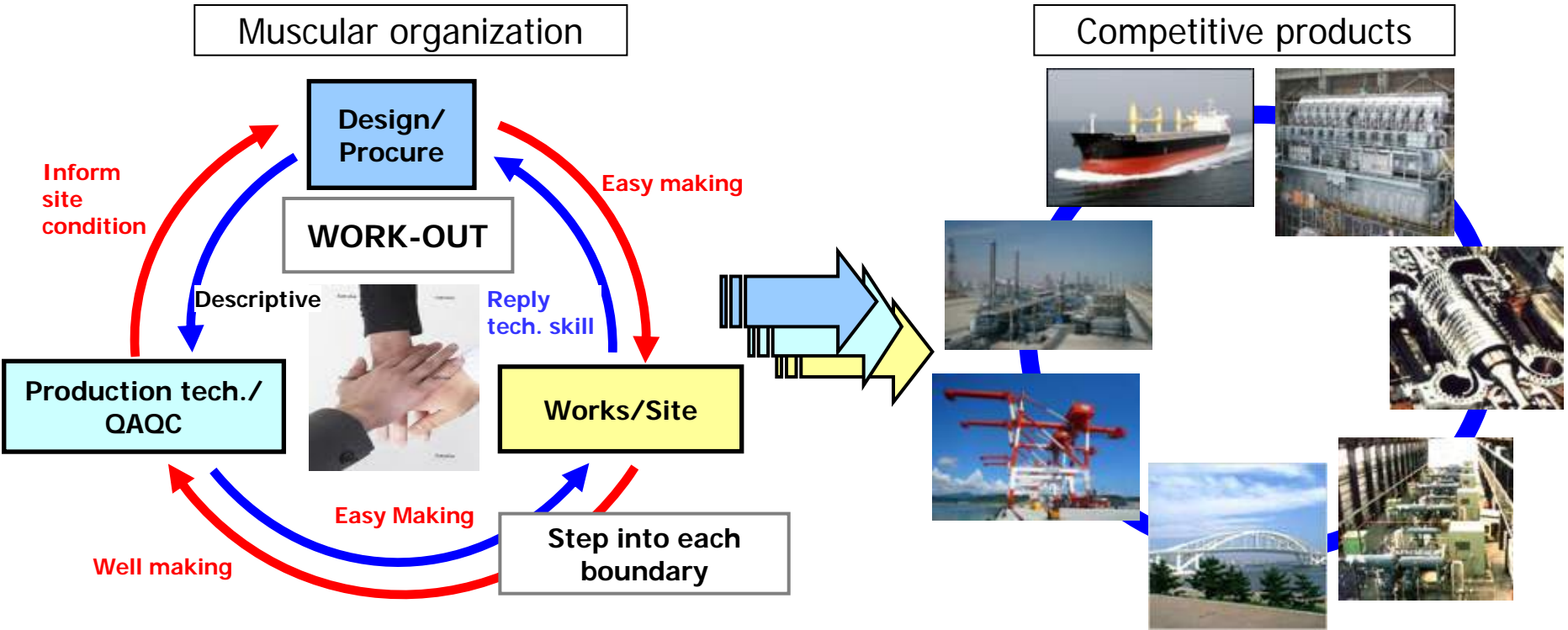
②Expand business by developing global market (2) Penetrate into emerging markets and Promote alliance

- Expand overseas sales
- Accelerate JV and M&A



③ Strengthen product competitive edge to prepare for severe business environment

(1) Enhance cost competitiveness (2) Trim fixed cost



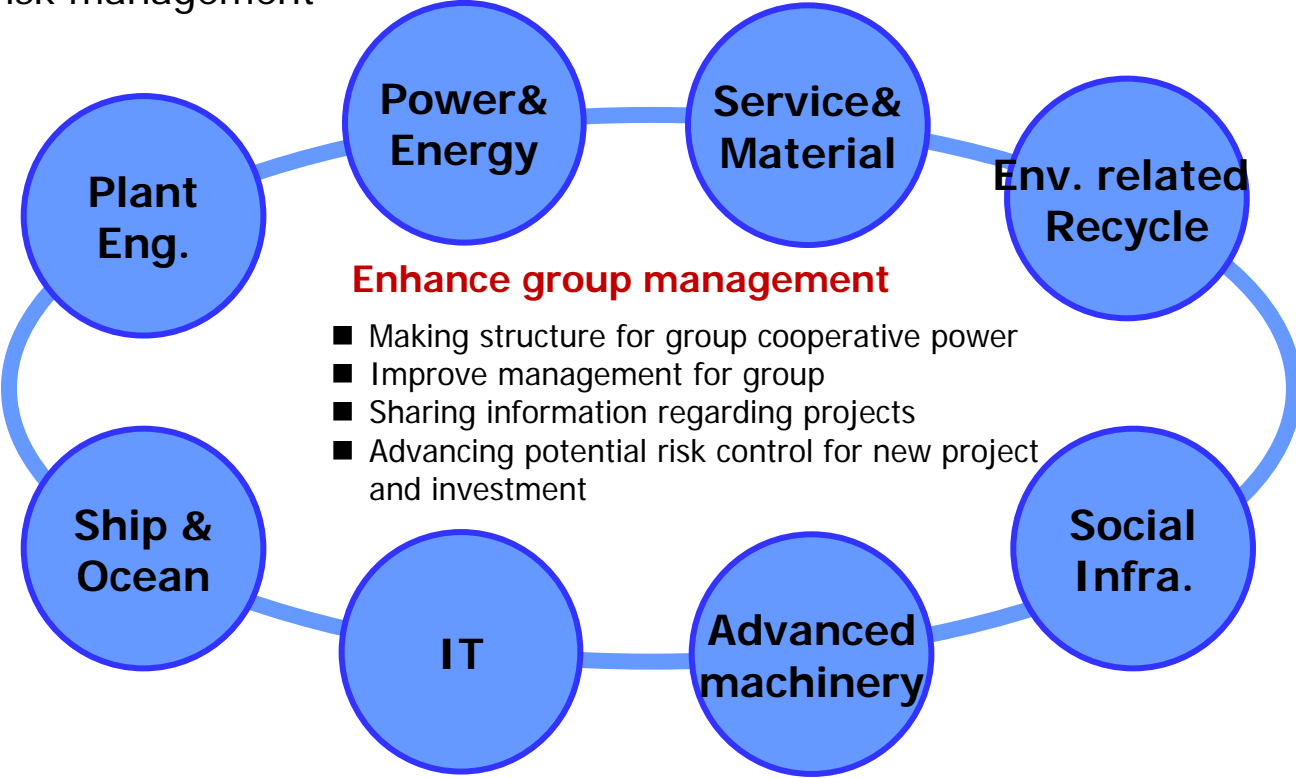
- Establish "Promoting Manufacturing Dept." for cost reduction
- Target costing with total optimization
- Overseas procurement and VA/VE with vendors

- Improve productivity by BPS (Best Practice Sharing)
- Trim fixed cost
 - Streamline organization and Reduce home office cost
 - Trim production fixed cost

④ Strengthen management foundation

(1) Enhance management system

- Prompt management to business environment changes
 - Form healthy sense of Crisis
 - Business selection and concentration
- Enhance group management
- Enhance risk management



④ Strengthen management foundation (2) Develop/globalize human resources & enhance technology foundation

- Develop plan for next generation resources
- Prompt action plan for globalization
- Re-structuring technology foundation

Supported by Human Resources

- Skillful middle & young age
- Overseas training program for young
- Enhance employment of foreign personnel

Business Direction



Supported by Technologies

- Accelerate/enhance technology/skill tradition
- Restructuring technical strategy for business structural changes
- Re-structuring technology foundation

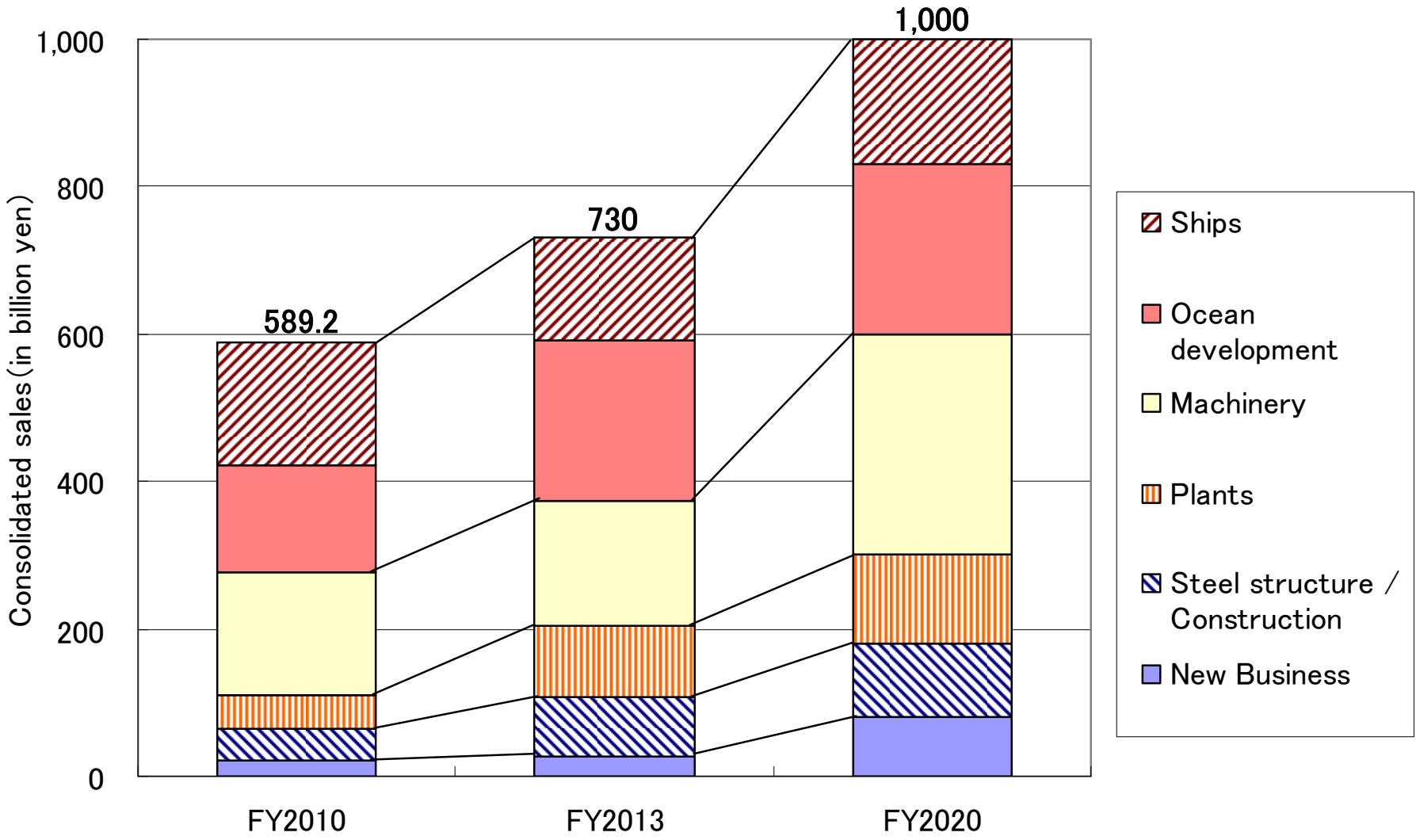
[2011 Mid-term Business Plan] Numerical plan for FY2013

Sales (in billion yen)	730
Operating profit (in billion yen)	25
ROIC	8%
Interest bearing debt (in billion yen)	200

Note: ROIC (return on invested capital): (operating profit + interest receivable and dividend) / (equity capital + interest-bearing debt)

7. Numerical Plans (2) Sales by Sector

Long-term sales plan by sector



7. Numerical Plans (3) Investment Plan

Total amount over 3 years consolidated	Business investment (in Billion Yen)	R&D Investment (in Billion Yen)	Financial investment and loan (in Billion Yen)
Non-consolidated	27	17	50
Consolidated	38	20	

Note: Excluding commercial lease investments by subsidiaries

**2011 Mid-term
Business Plan**

Do challenge, make progress for the bright future