



Chiyoda Group
Medium-Term Management Plan (2017–2020)

.....
“Mirai Engineering”
A Grand Opportunity for the Future
.....

August 9, 2017

Masaji Santo
President & CEO
Chiyoda Corporation

Objectives of the Medium-Term Management Plan (MTMP)

The world is changing drastically arising from a shift of the supply and demand structure for energy, heightened awareness of the global environment, and advances in digital technologies and biotechnologies.

These changes offer an excellent opportunity to transform and evolve CHIYODA.

With a combination of **structural reforms** to reinforce CHIYODA's fundamental strength and **growth strategies** to step ahead of changes around the world, **we aim to be a global top-tier "Integrated Engineering & Service Provider"** in the fields of Energy and Environment.

The key to achieving this vision is to take up the **challenge of "Mirai* Engineering"**, which creates social value making full use of CHIYODA's human resources and cutting-edge technologies.

All employees of the Chiyoda Group will work together to achieve this goal, united as one team.

Masaji Santo
President & CEO

Scene of a regularly held safety convention at a construction site



- 1. Our Challenges**
- 2. Direction Targeted under the Medium-Term Management Plan**
- 3. Structural Reform**
- 4. Growth Strategy**
- 5. Concept of “Mirai Engineering”**
- 6. Reorganization and Structure**
- 7. Quantitative Targets**
- 8. Investment Strategy**
- 9. Policy on Returns to Shareholders**

1. Our Challenges

(1) Assessment of the previous Medium-Term Management Plan

Achievements

- Maintenance of No. 1 position in LNG
- Entry to the offshore and upstream field
- Steady progress in life science and new energy fields – pharmaceutical, photovoltaic, hydrogen
- Strategic move into advanced medical and cutting-edge digital technologies
- Corporate operations with greater awareness of the social environment, HSE,* and diversity

Challenges

- Redefinition of business portfolio
- Further reinforcement of risk management capabilities
- Enhancement of basic earnings strength (Stronger resilience to downturns)
- Redefinition of global operational structure (realignment of regional strategies)
- Realignment of HR development and utilization policy (strengthen execution capabilities, expand human resource base)

* HSE: Health/Safety/Environment

1. Our Challenges

(2) Changes in the macro environment



Changes in the supply and demand structure for energy

- Increasing demand for energy and natural resources as the global population increases and GDP grows
- Diversification of energy sources
- Greater liquidity in LNG market
- Increased urbanization and electrification

Address diverse needs in energy supply and demand



Heightened awareness of the global environment

- Development of renewable energy
- Advances in technologies for energy conservation, new energies, dispersion in energy, and energy & electricity storage
- Increasing scarcity of food and water resources
- Increasing health awareness in society
- Advances into space

Expand environmental business including life science



Digital innovation driving changes in industrial structure

- Widening gap in competitiveness among companies
- Breakdown in borders between manufacturing and service industries
- Evolving business models
- Changes in roles people play
- Increased demand for adding business value throughout the life cycle

Develop next-generation business model

(1) Overview

Structural reform

- **Create a solid management base for future growth**

- 1 Further strengthen risk management capabilities**
- 2 Increase basic earnings strength and enhance resilience to downturns**
- 3 Further expand human resource base**

Growth strategy

- **Expand business fields and transform business model looking ahead 10 years**

- 1 Build energy value chain business**
- 2 Expand global environmental engineering business**
- 3 Develop new business model for a digital society**

CHIYODA's core value

Technological strength and project execution capabilities that achieve harmony between Energy and Environment

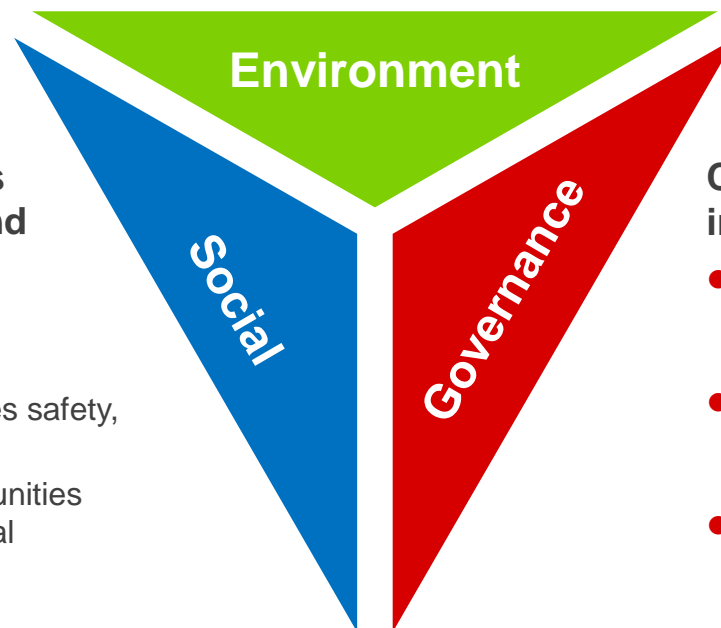
(2) Basic philosophy

..—— Increase corporate value by resolving social issues through harmony between Energy and Environment ——..

Create a corporate management structure that contributes to the development of a sustainable society, that all stakeholders identify with and can rely upon

Contributions to the global environment through our business

- Reducing the environmental impact of EPC* business
- Developing initiatives in renewable energy, hydrogen, etc.
- Preserving the earth's scarce resources and its biodiversity



Corporate vision that values human resources, safety, and regional communities

- Promoting diversity in human resources and work styles
- Developing a culture that values safety, health, and human rights
- Contributing to regional communities through our business and social activities

Corporate management with integrity and fairness

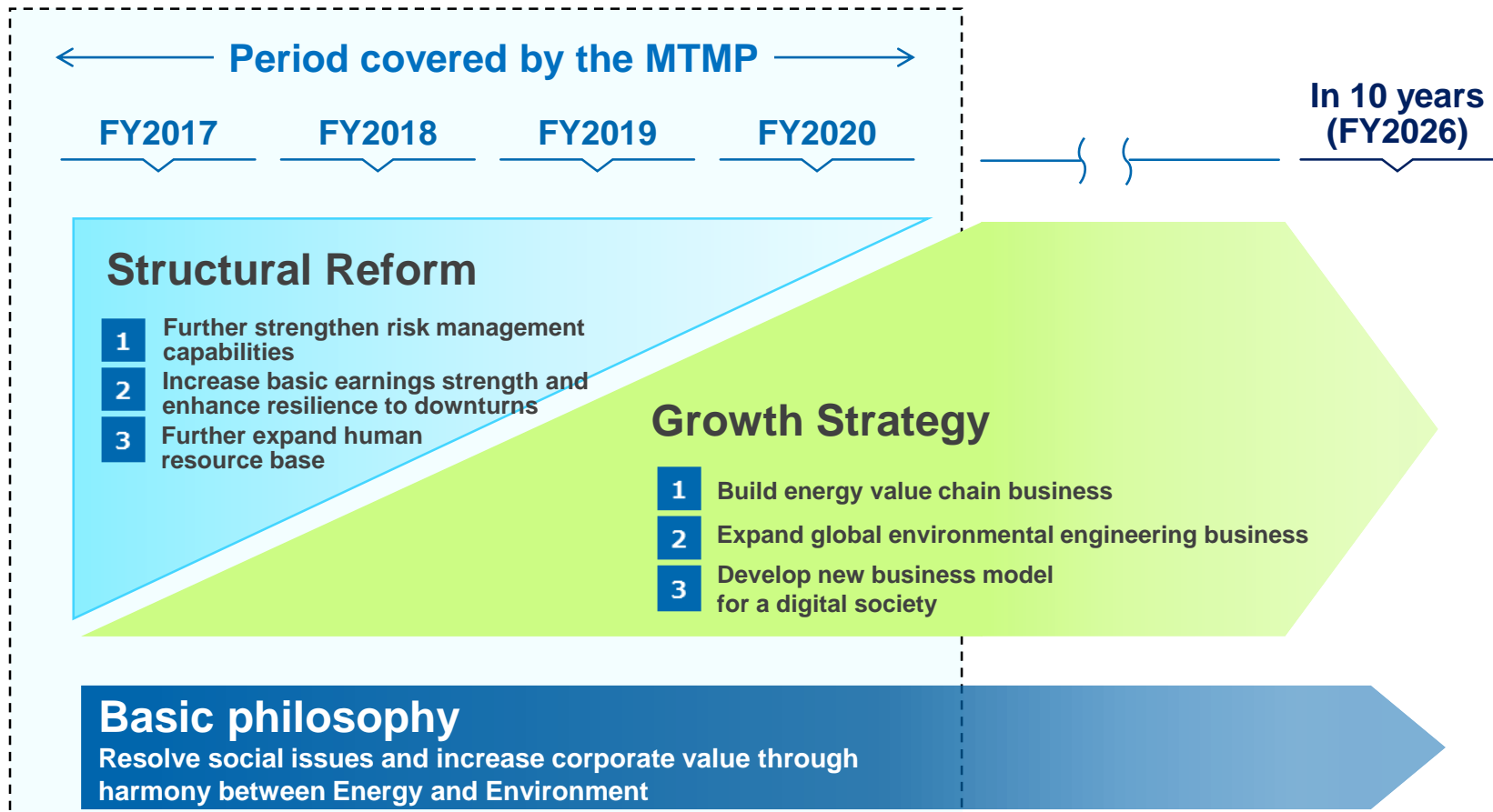
- Swift execution of business, Structural Reform and Growth Strategy by executives
- Board oversight, including external directors, of business execution and the MTMP progress
- Groupwide understanding and awareness of management intentions (compliance, etc.)

* EPC: Engineering, Procurement and Construction

2. Direction Targeted under the Medium-Term Management Plan

(3) Time scale

- Simultaneously pursue Structural Reform and Growth Strategy
- Prioritize Structural Reform in the first 2 years
- Implement Growth Strategy based on 10-year view
- Maintain CHIYODA's core value, technological strength and project execution capabilities to achieve harmony between Energy and Environment



3. Structural Reform

(1) Further strengthen risk management capabilities

Goals

- Establish a corporate structure that promotes sustainable growth, by turning technological superiority to improved earnings (FY2018)
- Thoroughly adhere to committed profitability to ensure achievement of FY2020 quantitative targets (throughout the MTMP period)

1

Strengthen structure for execution and profitability management of EPC projects on consolidated basis

- Optimize execution structure on a consolidated basis
- Redefine and rebuild project management and control process
- Further enhance profitability management and accuracy, including sharing of project knowledge and expertise, at companywide level
- Make operational flows more efficient

2

Establish structure for expansion of business fields and transformation of business model

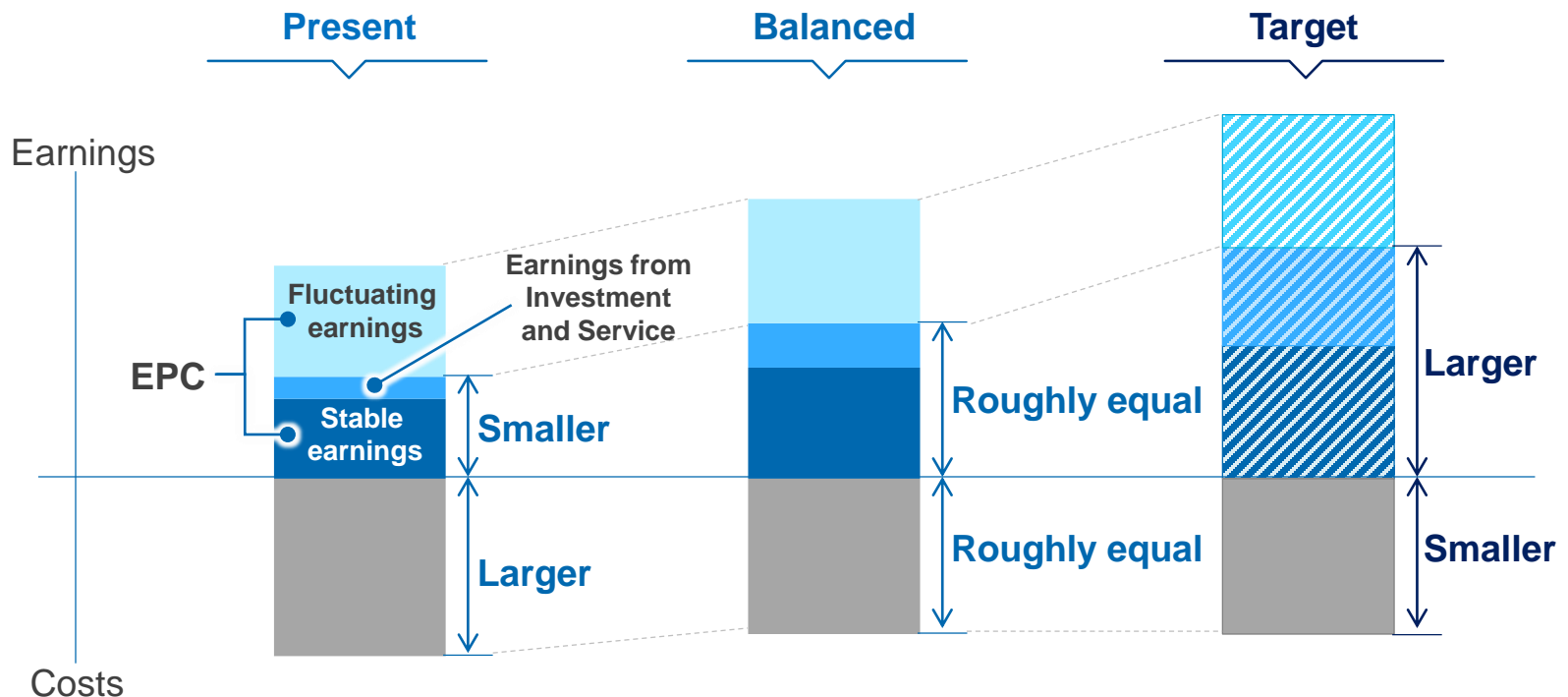
- Strengthen intelligence over external environment, market trends, and business and technological trends
- Strengthen corporate structure to identify and analyze business risks, execution, management and control at asset holding business
- Ascertain time scale and financial targets for commercialization of proprietary technologies
- Establish corporate structure, including utilization of external human resources necessary for developing Growth Strategy

3. Structural Reform

(2) Increase basic earnings* strength and enhance resilience to downturns

Goals

- Expand basic earnings by developing technological strength, project execution capabilities and cost competitiveness (throughout the MTMP period)
- Reduce consolidated fixed costs with the aim of balancing basic earnings and costs (FY2020)
- Redefine domestic and global operational structure (FY2018)



* Basic earnings: Stable EPC earnings + earnings from Investment and Service

3. Structural Reform

(3) Further expand human resource base

Goals

- Develop technological strength and project execution capabilities (throughout the MTMP period)
- Realign the HR development system with medium- to long-term outlook (FY2018)
- Implement optimal assignment of human resources for continuous earnings growth (throughout the MTMP period)

Human resource utilization

- Proactively reassign human resources to growth fields
- Establish companywide structure to promote optimal assignment of human resources
- Strengthen global HR system to achieve human resource mobility within the group
- Promote further diversity and expand the system to enable various work styles

Human resource development

- Establish structure for medium- to long-term human resource development
- Develop PKPs/PEs*¹ by producing OJT*² opportunities based on proactive execution of mid-sized projects
- Continue the PKP development program to expand EPC execution capacity
- Improve the development system for managerial talent

Enhance potential of all employees

Foster a stronger corporate foundation with high loyalty and willingness to pursue new challenges

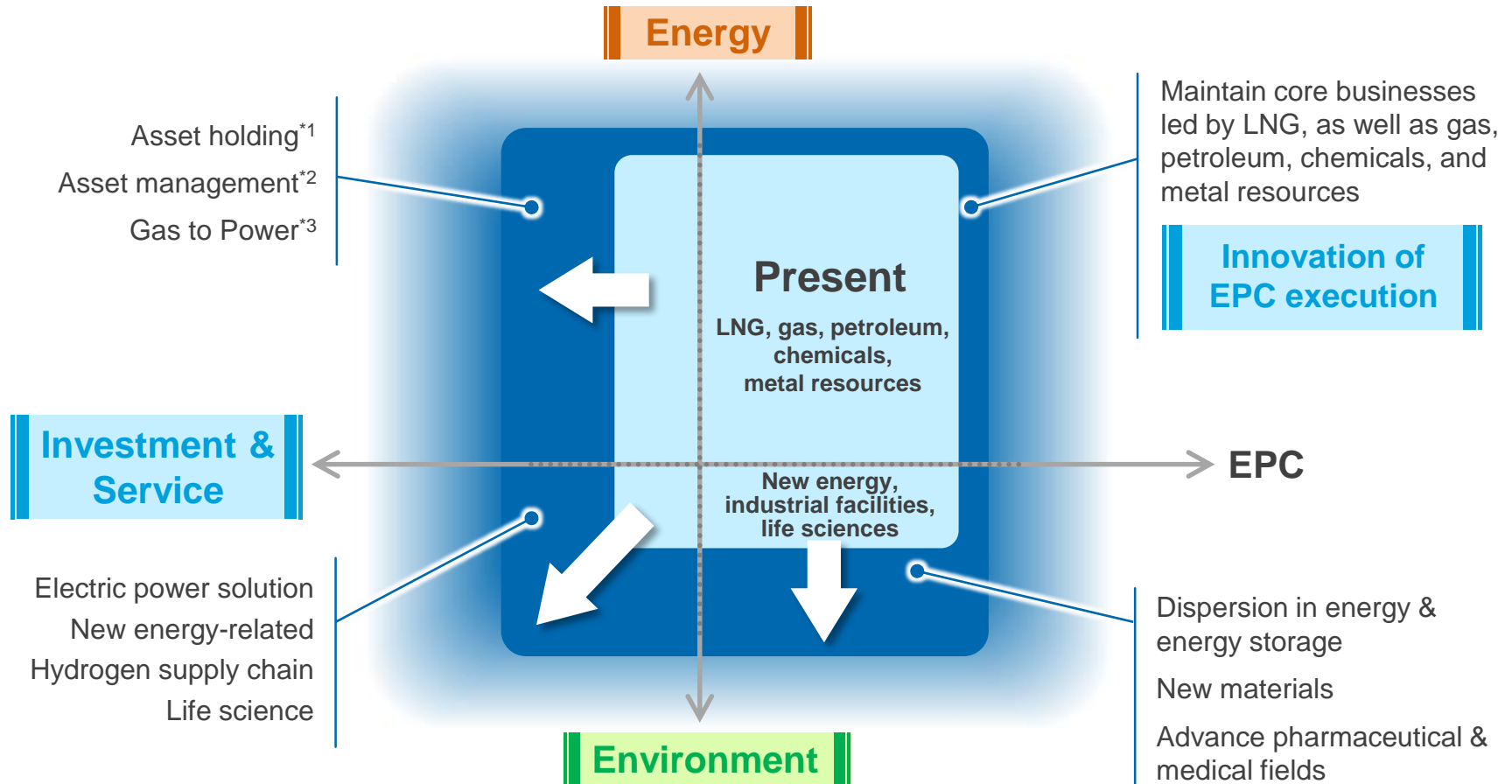
*1. PKP: Project Key Personnel / PE: Project Engineer

*2. OJT: On-the-job Training

4. Growth Strategy

(1) Expansion of business fields and transformation of business model

- Expand two key business fields of Energy and Environment (vertical axis below)
- Aim to innovate EPC execution and diversify our business into investment and service areas by utilizing innovative digital technologies (horizontal axis below)



*1. Asset holding: Businesses that gain earnings from holding and managing assets like floater (floating facilities) and onshore plants

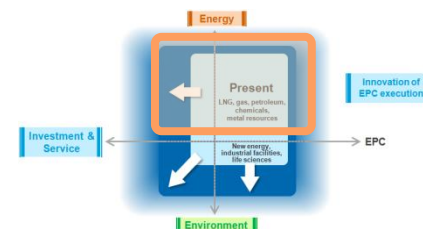
*2. Asset management: Businesses that gain earnings by providing various technological services to holders of assets

*3. Gas to Power: An integrated business of LNG liquefaction, LNG regasification, and power generation

4. Growth Strategy

(2) Energy

■ Build **energy** value chain business



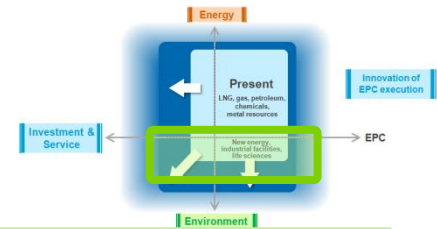
| Fields/Initiatives | By FY2020 | In 10 years (FY2026) |
|--|--|---|
| Upstream* <ul style="list-style-type: none"> ● Pursue strategic partnerships ● Enter into floater business | <ul style="list-style-type: none"> ■ Complete business redefinition (FY2017) ■ Strengthen floater business | <ul style="list-style-type: none"> ■ Secure stable profits |
| Midstream* <ul style="list-style-type: none"> ● Initiate diverse LNG approach (standardization, small-scale, offshore) ● Restructure EPC securing and executing model | <ul style="list-style-type: none"> ■ Comprehensively strengthen and expand LNG lineup ■ Maintain No. 1 position in LNG | <ul style="list-style-type: none"> ■ Further grow No. 1 position in LNG ■ Build specific strategic regions |
| Downstream* <ul style="list-style-type: none"> ● Capture shale and emerging market demand ● Provide solutions for multiple plant integration | <ul style="list-style-type: none"> ■ Build up orders in petroleum, chemicals, and metal resources ■ Enter into Gas to Power business | <ul style="list-style-type: none"> ■ Diversify metal resource fields ■ Expand regions generating stable profits |
| Asset holding business <ul style="list-style-type: none"> ● Further strengthen risk management capabilities ● Maximize synergies with asset management business | <ul style="list-style-type: none"> ■ Enter into asset holding business | <ul style="list-style-type: none"> ■ Contribute as stable profits source |
| Asset management business <ul style="list-style-type: none"> ● Strengthen plant operation know-how ● Utilization of cutting-edge digital technologies | <ul style="list-style-type: none"> ■ Realize specific projects | <ul style="list-style-type: none"> ■ Provide stable operation of multiple asset management businesses |

* Above business field classifications are as per CHIYODA's standards

4. Growth Strategy

(3) Environment

■ Expand global **environmental** engineering business

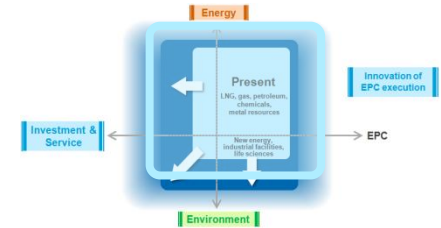


| Fields/Initiatives | By FY2020 | In 10 years (FY2026) |
|--|--|--|
| New energy <ul style="list-style-type: none"> ● Develop businesses and pursue technologies in electric power field ● Develop business via partnering ● Market analysis and business development toward commercialization of proprietary technologies | <ul style="list-style-type: none"> ■ Expand EPC track record in increasingly diverse power source equipment ■ Enter into integration of renewable energy with energy / electricity storage, and dispersed energy field ■ Achieve next milestone for hydrogen supply chain and bio jet fuel businesses | <ul style="list-style-type: none"> ■ Build a presence in new energy field ■ Develop next-generation business model based on proprietary expertise and technologies |
| Environment, energy conservation, industrial facilities <ul style="list-style-type: none"> ● Strengthen business development capabilities to develop solutions-based approach ● Differentiate by technology | <ul style="list-style-type: none"> ■ Establish track record in environmental preservation facilities ■ Promote technologies that reduce environmental impact and conserve energy for industrial facilities and metal resources fields ■ Establish EPC track record in new material, food-related facilities, etc. | <ul style="list-style-type: none"> ■ Profit contribution from development of growth fields and markets |
| Life science <ul style="list-style-type: none"> ● Pursue business opportunities and models in Cellular, Tissue and Gene Therapies ● Develop business via partnering | <ul style="list-style-type: none"> ■ Expand business scale in EPC field ■ Expand business fields and develop overseas business | <ul style="list-style-type: none"> ■ Profit contribution from EPC and new business model ■ Expand into advanced pharmaceutical and medical fields |

4. Growth Strategy

(4) Business model

■ Develop new **business model** for a digital society



Build energy value chain business

Expand global environmental engineering business

Fields/Initiatives By FY2020 In 10 years (FY2026)

Innovative EPC execution / Development of new business model

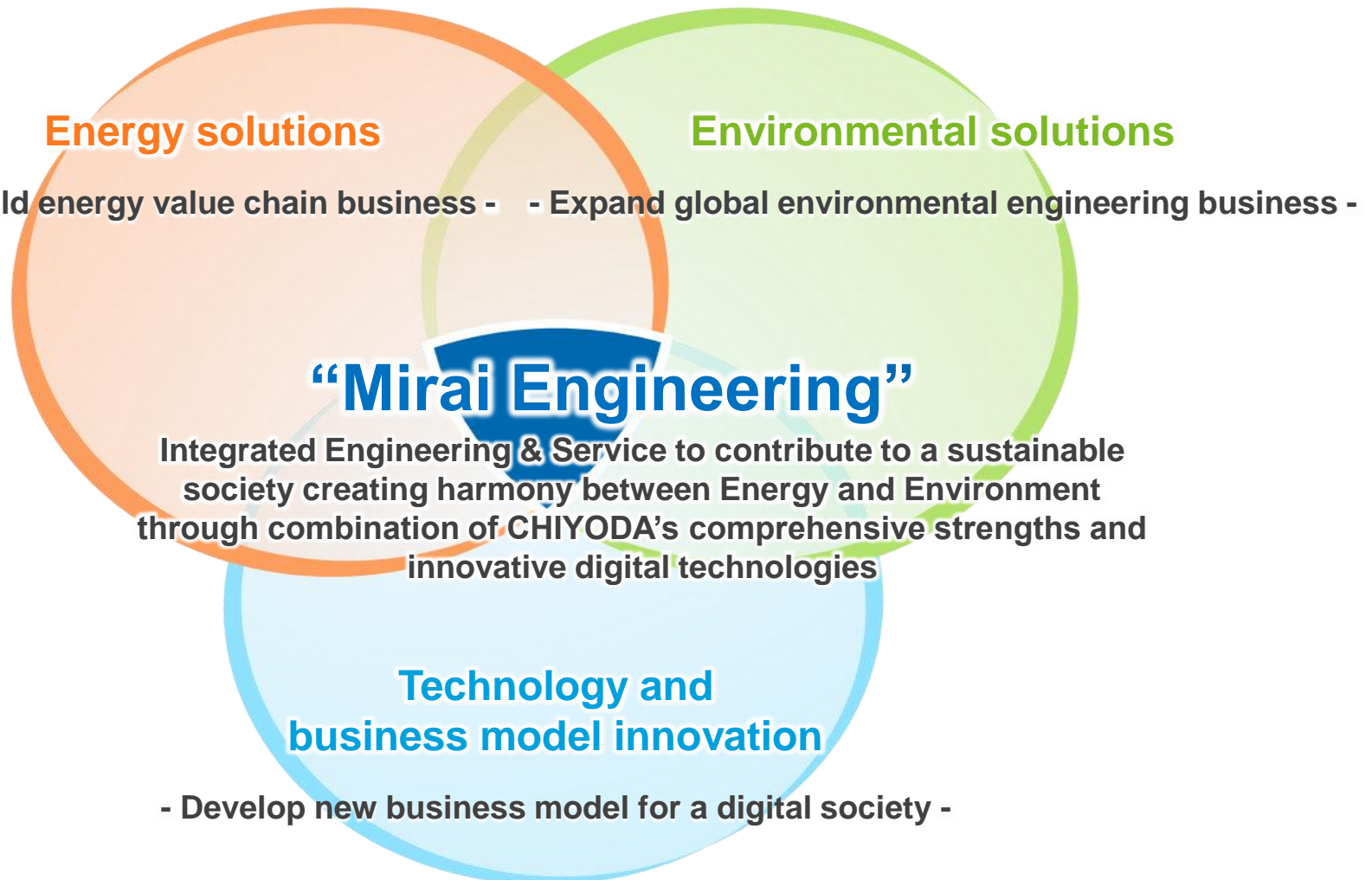
- Combine CHIYODA's core technologies with digital revolution
- Develop relevant human resources
- Partner with cutting-edge digital technology companies
- Innovate project IT
- Restructure EPC securing and executing model
- Provide solutions that create high added value over entire plant lifecycle

- Promote use of digital technologies companywide (including efficiency improvement)
- Strengthen EPC execution using AI and other advantages of cutting-edge technology
- Apply to asset management business

- Innovative EPC execution model for differentiation
- Increase degree of profits contribution from investment and services

5. Concept of “Mirai Engineering”

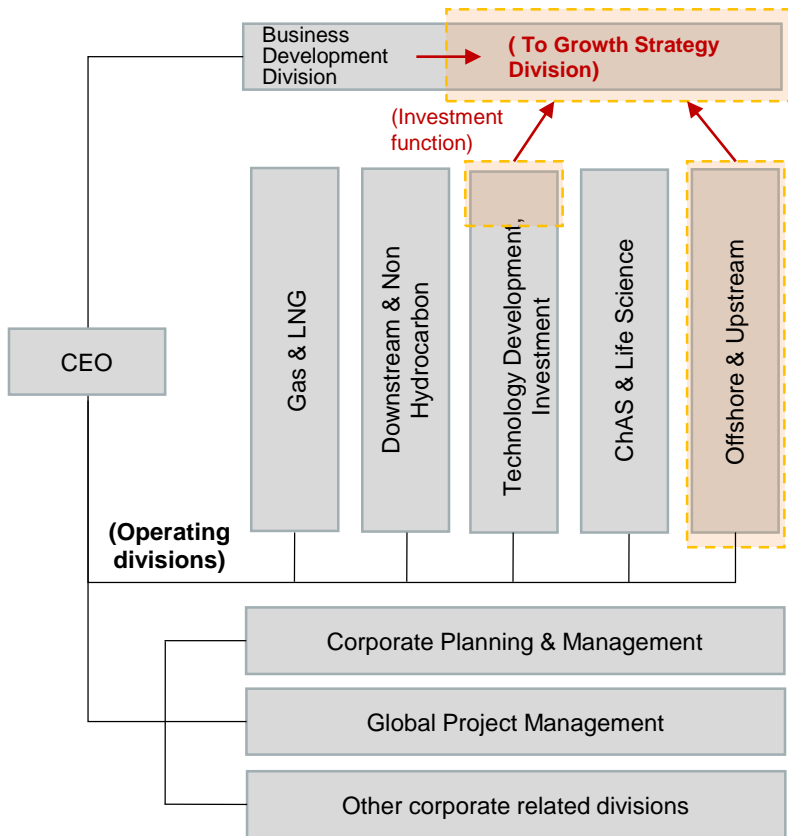
- “Mirai Engineering” derived from integration of three growth strategies



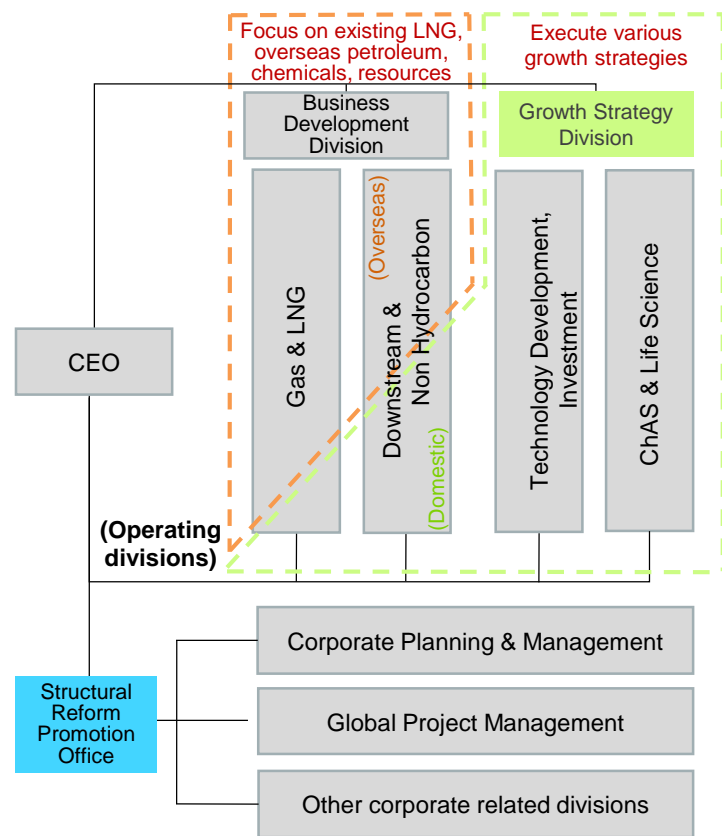
6. Reorganization and Structure

- Establish new “Structural Reform Promotion Office” and “Growth Strategy Division” as main forces to carry out structural reforms and growth strategies
- The Structural Reform Promotion Office will be directly supervised by the CEO, and will manage and monitor the structural reform measures to be taken by related corporate divisions
- The Growth Strategy Division is responsible for the new business development function to develop and carry out Growth Strategy
- Restructuring at current operating division level is scheduled for April 2018, considering progress of implementation measures under Growth Strategy

Present



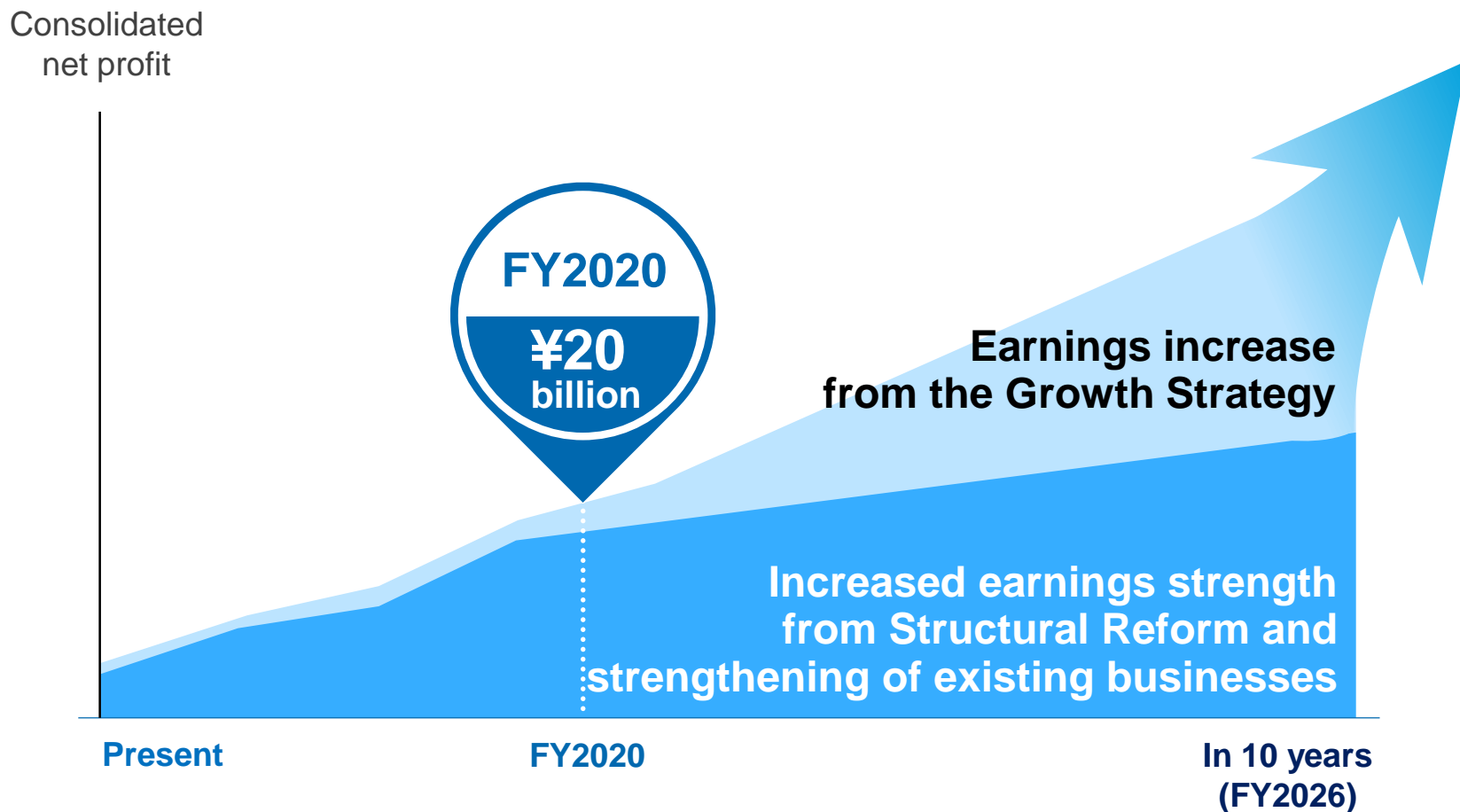
October 2017



7. Quantitative Targets

(1) Consolidated net profit

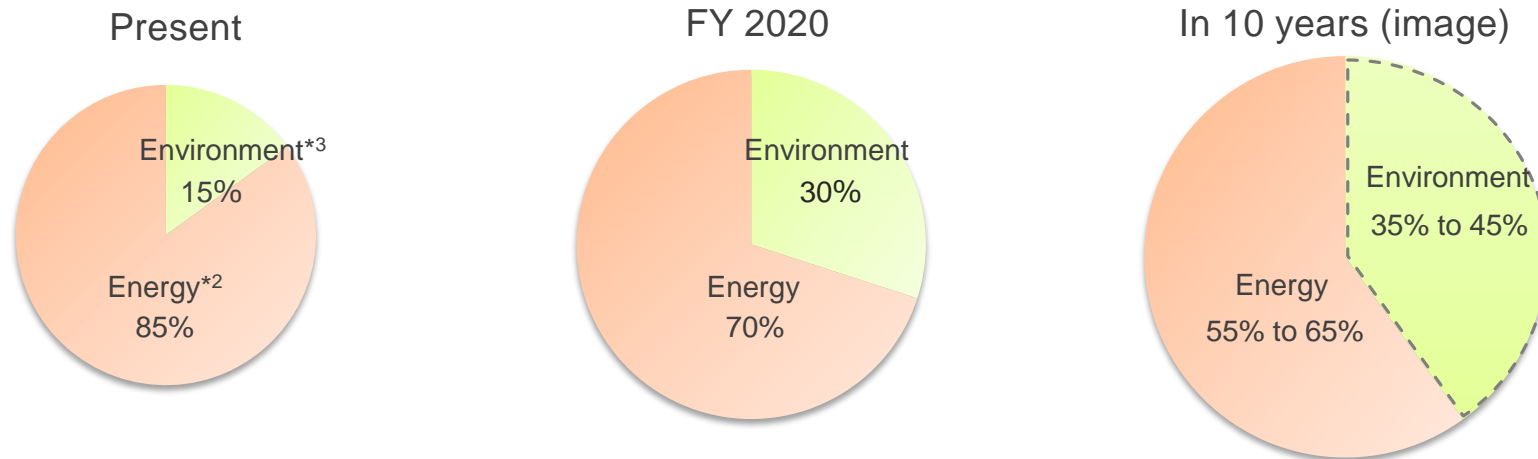
- FY2020 is milestone of Growth Strategy looking ahead 10 years
- Achieve consolidated net profit of ¥20 billion with double-digit ROE



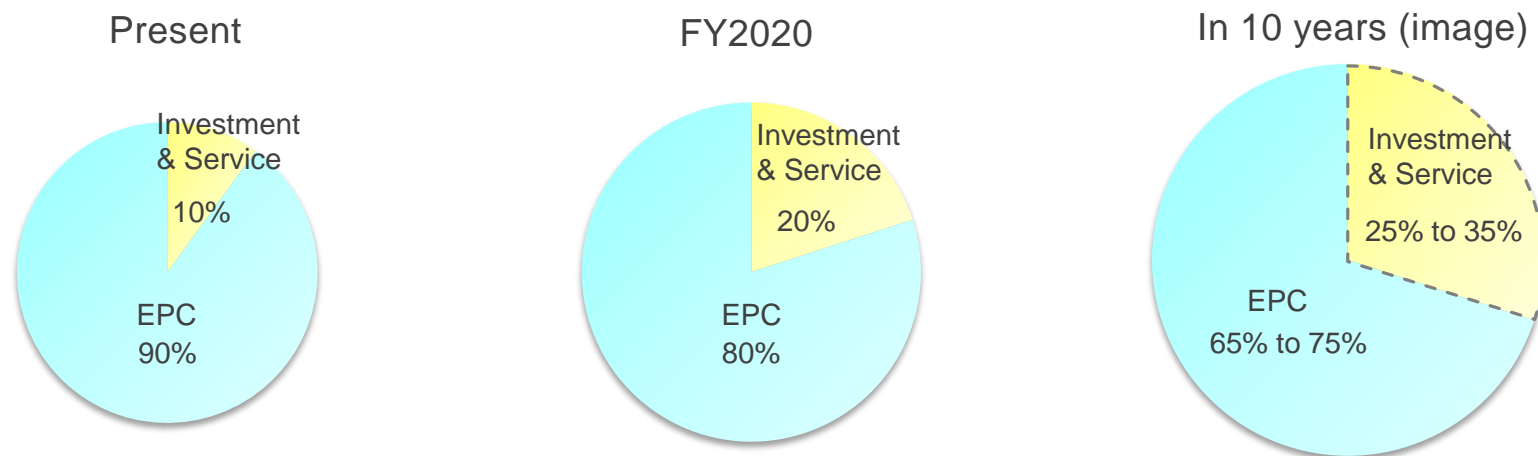
7. Quantitative Targets

(2) Earnings*1 portfolio

Business field



Business model



*1. Earnings: Gross profit on orders and profit through Investment & Services

*2. "Energy" includes LNG, gas, petroleum, and chemicals, as well as metal resources and Gas to Power

*3. "Environment" includes new energy (such as renewable energy, energy storage, and hydrogen), industrial facilities (such as environmental preservation facilities, the new materials and food-related facilities), and life science (such as pharmaceuticals and medicine)

*4. "Investment & Service" includes business investment and operation, consulting, and various construction and technological services for existing facilities

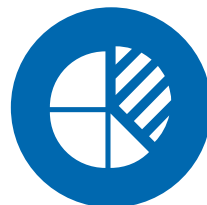
8. Investment Strategy



Profit distribution policy

Allocate **50%** as a benchmark of consolidated net profit each fiscal year to invest for business growth, while maintaining proper financial health

Strengthen corporate structure for due diligence, post-investment execution & management, based on lessons learned from investment under the previous MTMP



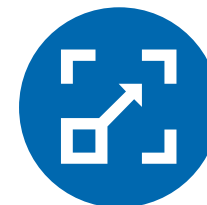
Investment areas

Invest in carefully selected projects that will contribute to the **reinforcement of the core business fields** and the realization of the following **three growth strategies**:

Build energy value chain business

Expand global environmental engineering business

Develop new business model for a digital society

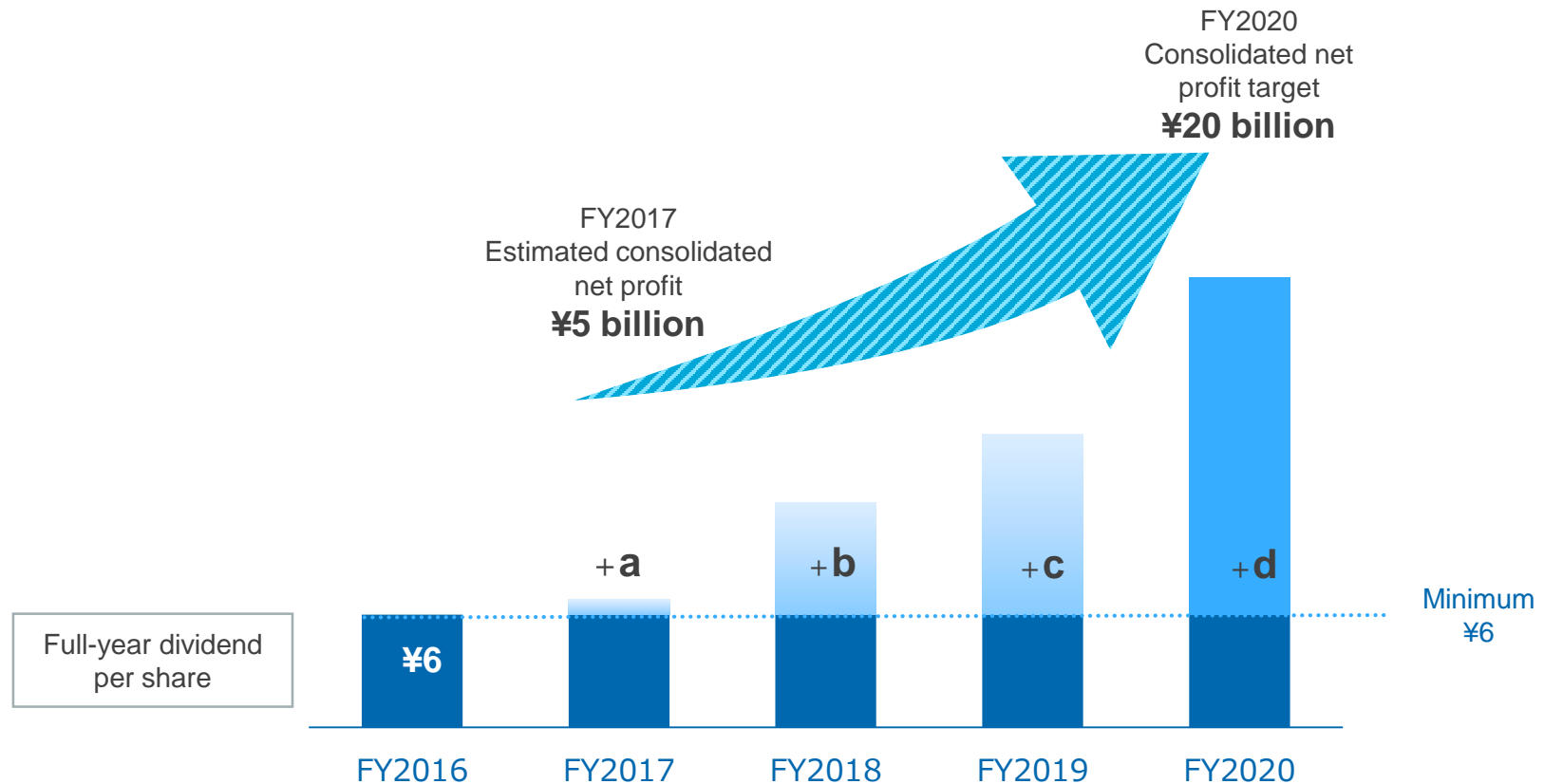


Investment size

Under the premise of thorough investment discipline, invest an aggregate of roughly **¥30–50 billion** over four years, using also cash on hand in addition to funds for investment under the profit distribution policy

9. Policy on Returns to Shareholders

- Achieve profit growth through Structural Reform and Growth Strategy, and set consolidated dividend payout ratio of at least 30% during the MTMP period
- Minimum full-year dividend of ¥6 per share
- Determine dividend amount each fiscal year in consideration of progress under Growth Strategy and the Investment Strategy together with operating environment



“Mirai Engineering” A Grand Opportunity for the Future



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This material includes forecasts based on forward-looking plans and projections as of August 9, 2017. Actual results may differ from these forecasts as a result of risks associated with changes in economic conditions and other elements of uncertainty.