



Medium-term Management Plan (FY2021-FY2025)

Realization of Your Success, Our Pride

Executive Summary

March 25, 2021

Toyo Engineering Corporation

Highlights of Medium-term Management Plan

- ✓ Aiming for a balance between an environmentally conscious society and good life (economy and convenience)
- ✓ To this end, we have evolved through a double helix of "Advanced EPC Operation" and "Sustainable Technology and Business Development."
- ✓ As a result, net income of 5 billion yen or more and ROE of 10% or more on average from FY2023 to FY2025

TABLE OF CONTENTS

Performance in FY2020 and Progress of the Revitalization Plan

- ▶▶▶ 1. Review of previous years
- 2. Business Environment Awareness
- 3. Medium-term Management Plan and Numerical Targets
- 4. Mechanisms to Achieve
- 5. Positioning of the Medium-Term Plan in SDGs/ESG

Positive Results in Reforming our business portfolio and Reinforcement of Organizational strength and financial ground

Review of the Revitalization Plan

	Basic Policy	Target		Results (from FY2016 to FY2020)
Business restructuring	Business portfolio transformation	Promoting the selection and concentration of product lines and regions, Toward the Two Pillars of Plant & Infrastructure	➔ ○	Consolidated gross profit reached all most Plant 50: Infrastructure 50
	Innovation promotion	Promoting new business and achieving operational efficiency and cost reductions with DXoT*1	➔ △	Expand sales of DX-PLANT and HERO*2 and establish a new organization to promote next-generation technology and DX. Profit is next step
Organizational Strengthening	Overseas EPC sites optimization	On a group-wide basis Optimization and standardization of operations	➔ ○	Gross profits of group company's own projects increased approximately 4 times
	Domestic resources Optimization	In line with the business portfolio, shifting personnel to infrastructure business	➔ ○	Plant::Infrastructure Business unit ratio of staffs : changed from 70:30 to 55:45 .
	Risk Management Further strengthening	Carry out thorough order management and execution management (quality-related losses reduction task)	➔ ○	The gross margin of Plant EPC projects improved from those awarded before the reconstruction plan.
	Strengthening financial ground	Consideration of medium- to long-term capital measures	➔ ○	Capital increase by the allocation to Integral Capital adequacy ratio increased from 11% to 18% (from FY2017 to FY2019)

*1: Digital Transformation of TOYO *2: HERO (Energy-saving service for plants using mathematical optimization technology)

In Fiscal 2020, prospect of positive figures for a second consecutive term. New orders are struggling due to COVID-19 impact

Key Management Indicators

■ External targets
 ■ Achievement (Achievement)
 ■ Actual results (not achieved)
 ■ Actual results (no external target)

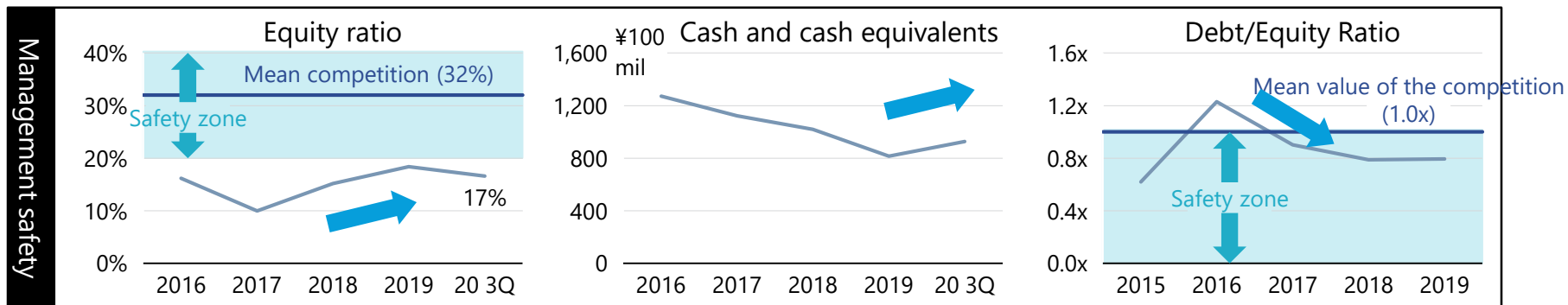
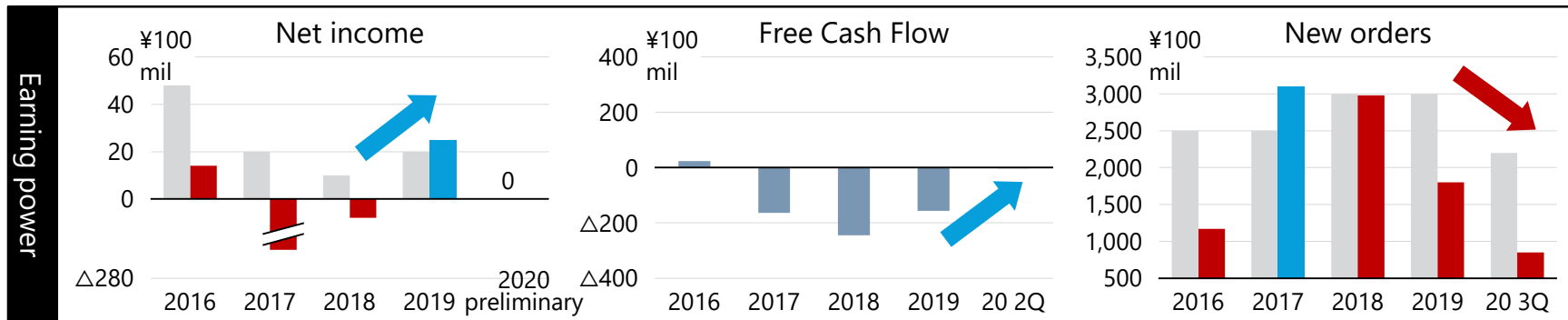


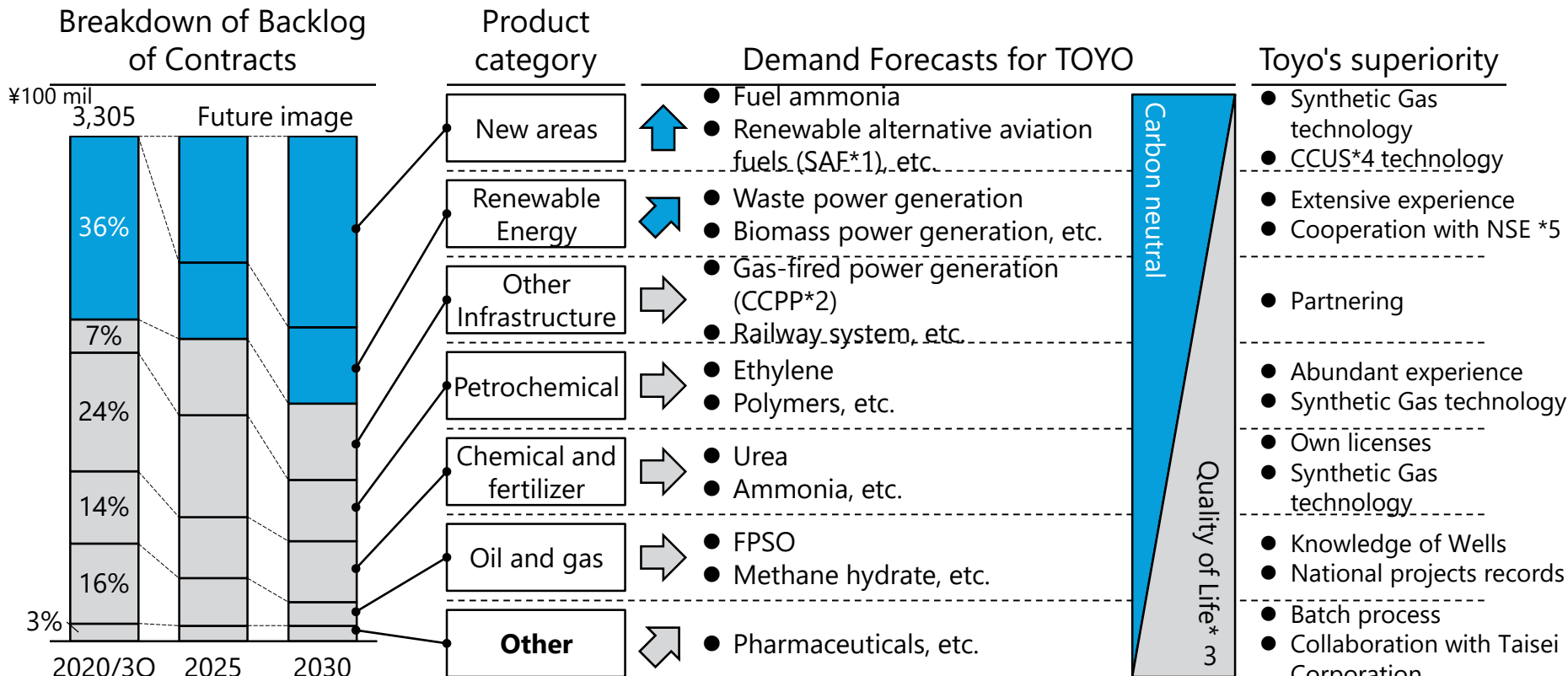
TABLE OF CONTENTS

1. Review of previous years
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How does the global carbon neutral policy affect Toyo's business?

Carbon neutral policy is a big following wind for TOYO

Impact on TOYO's performance by Carbon Neutral Policy

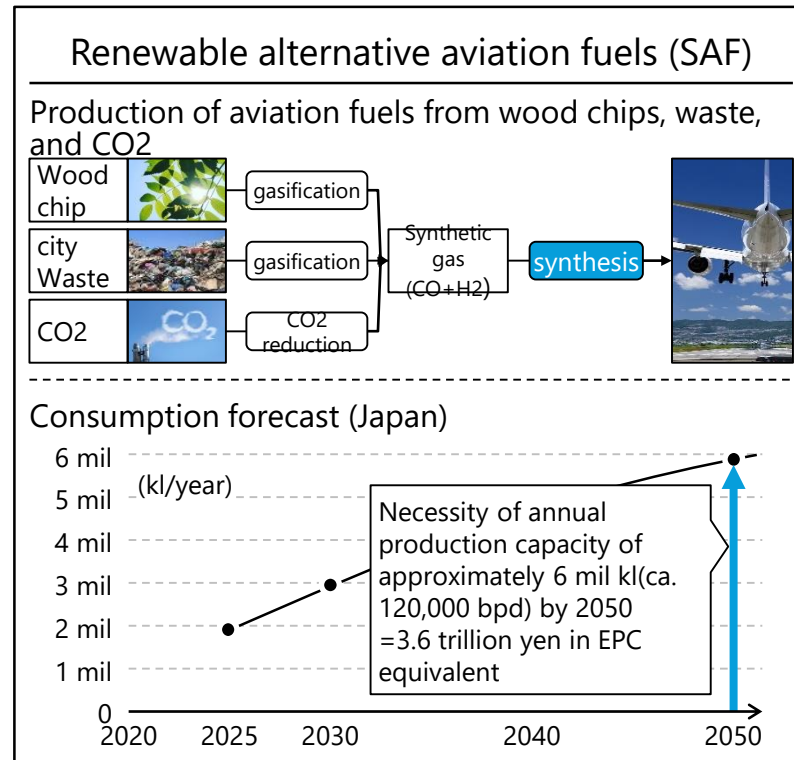
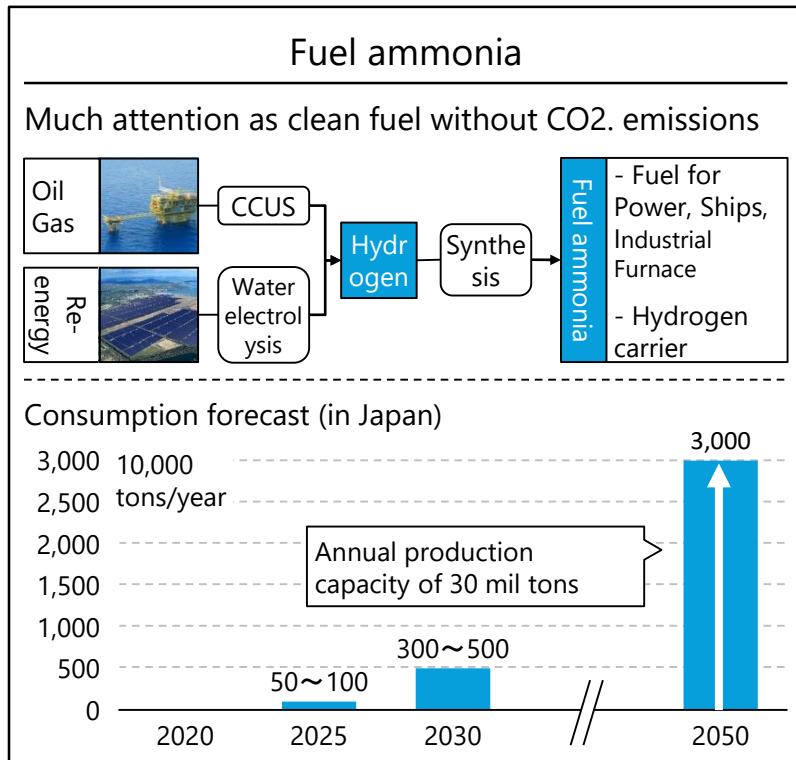


*1: Sustainable Aviation Fuel *2: Combined Cycle Power Plant (power generation combining gas turbine and steam turbine)

*3: Quality of Life *4: Carbon dioxide Capture, Utilization and Storage *5: Nippon Steel Engineering Co., Ltd.

Potential EPC Demand in Japan on Fuel ammonia / SAF (Aggregated to 1.5 / 3.6 trillion yen till 2050)

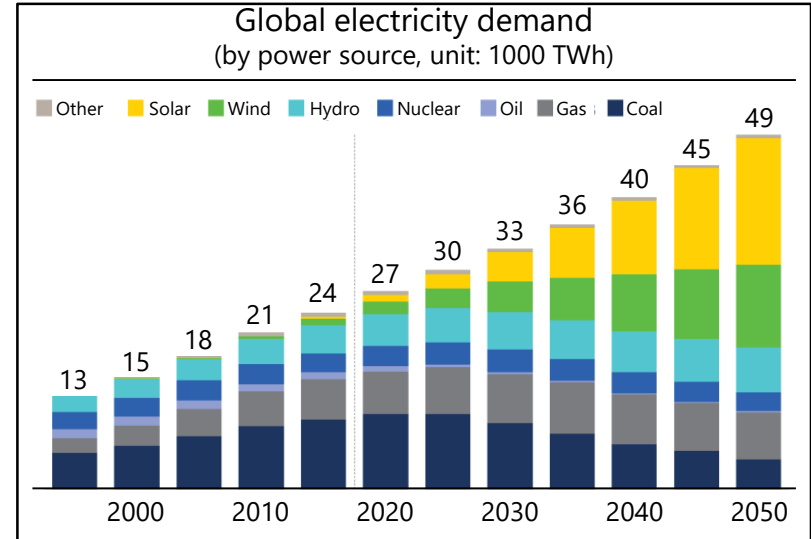
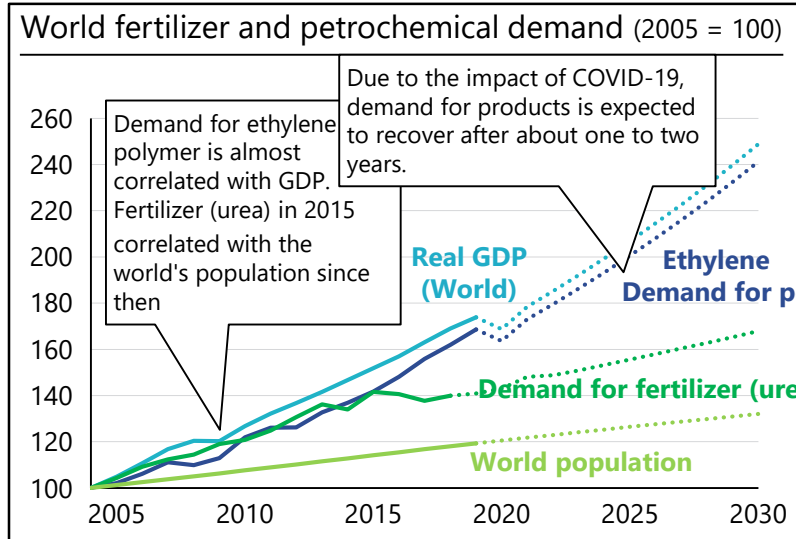
Potential demand for EPC related to carbon neutral (e.g.)



※Technology to synthesize liquid hydrocarbons from FT (Fischer-Tropsch) synthesis (a mixture of carbon monoxide and hydrogen) using a catalyst
 Source: Ministry of Economy, Trade and Industry, Council of Public and Private Sectors for the Introduction of Fuel Ammonia, Agency for Natural Resources and Energy, Association of Clean Fuel Ammonia, Periodic Aviation Association

Needs for "Quality of Life" mainly on emerging countries are important social issues

Prospects for Final Product Demand in the Area of EPC



In pursuit of both "harmony with the environment" and "economy and convenience" There is a need for solutions that are worth challenging for TOYO.

Source: Based on World Economic Outlook, Ministry of Economy, Trade and Industry, "Supply and Demand Trends of World Petrochemical Products," IFASTAT, and McKinsey "Global Energy Perspective 2019: Reference Case"

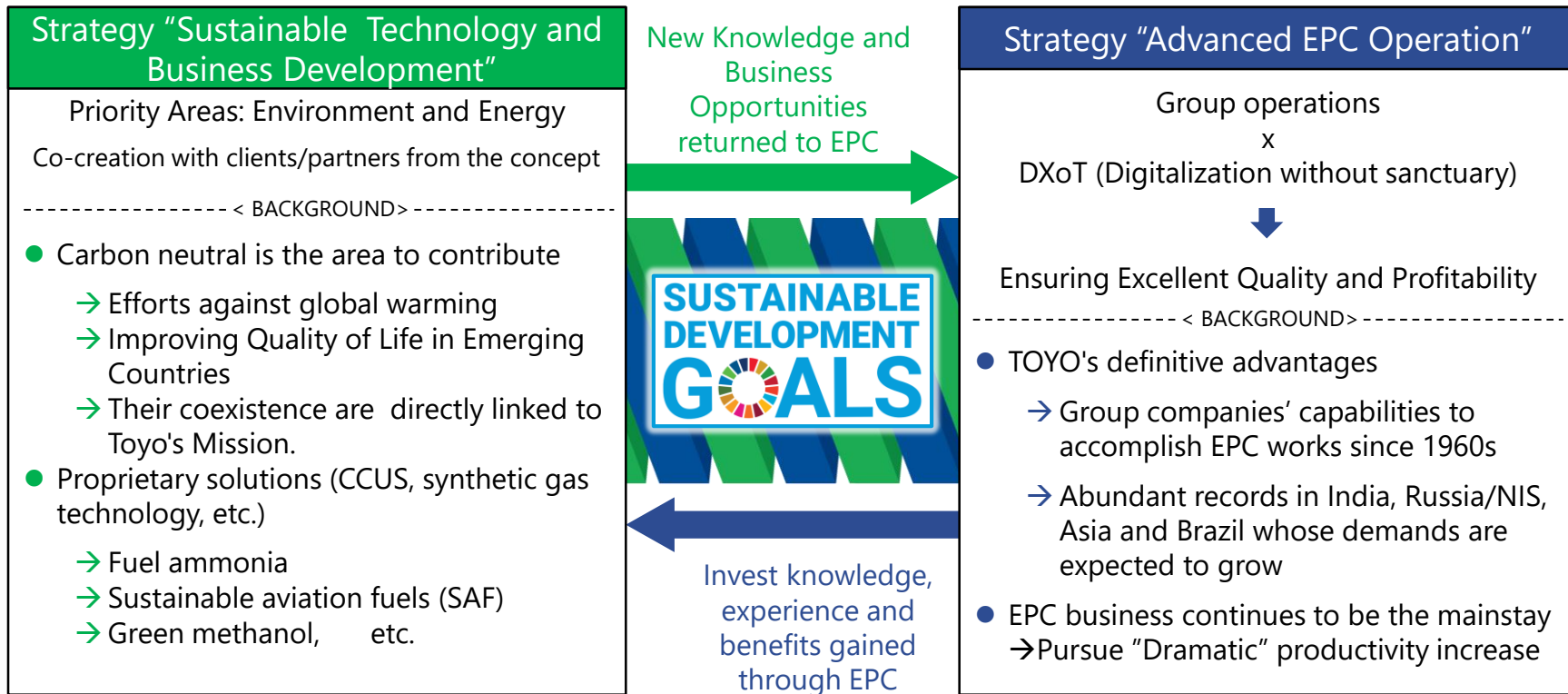
TABLE OF CONTENTS

How can we achieve both environmentally conscious society and a prosperous lifestyle? >>>

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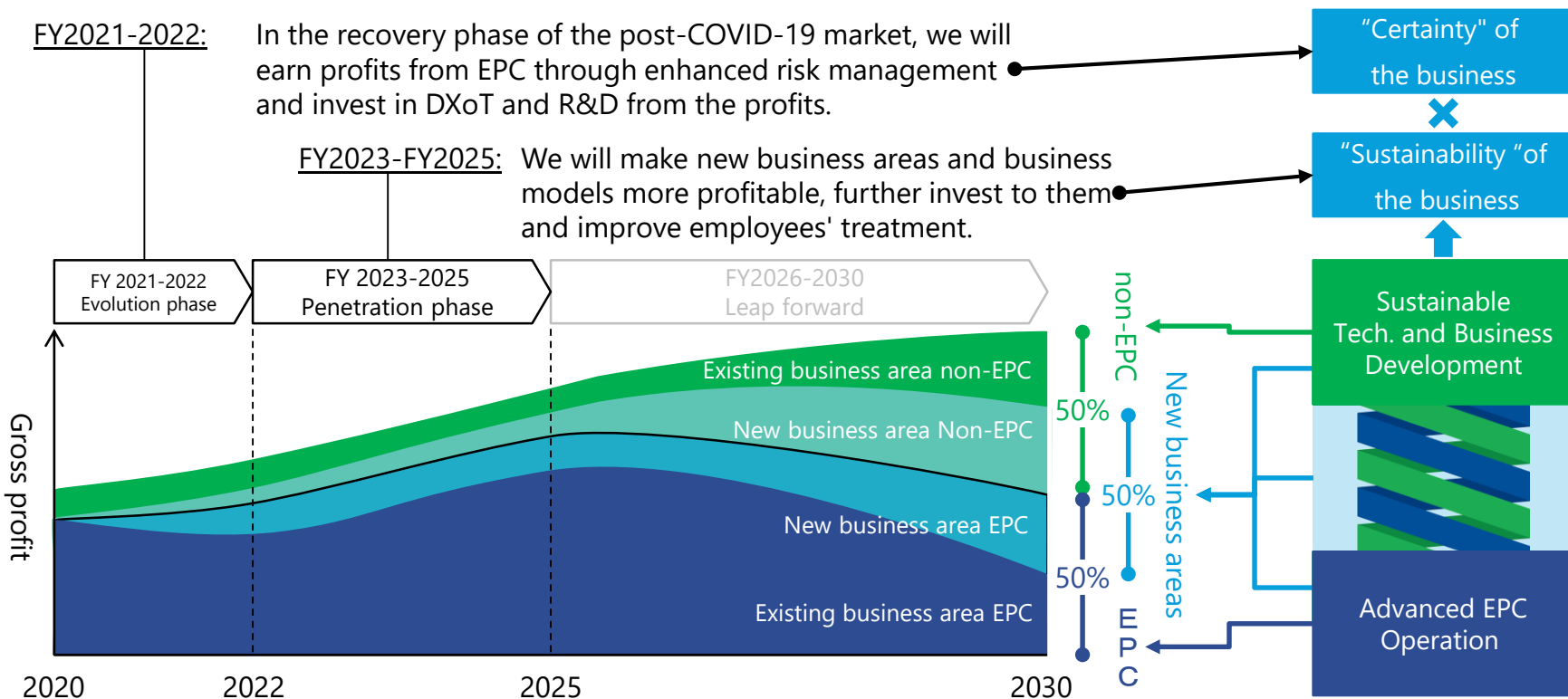
Sustainable Global society through Sustainable Technology & Business Development and Advanced EPC Operation

Medium-term company-wide strategy



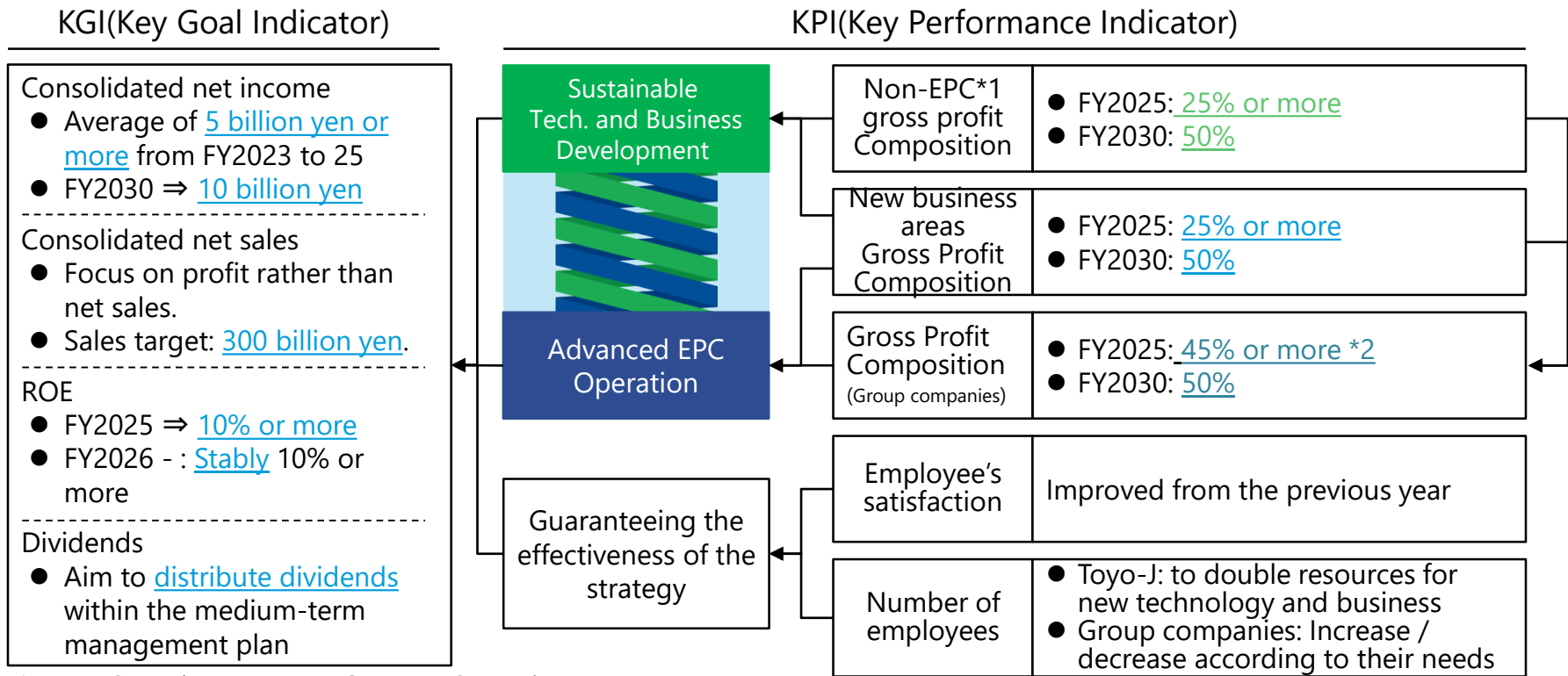
TOYO's sustainability (certainty x sustainability) as well as Global community

Relationship between Medium-Term Company Strategy and Consolidated Profit Structure (Image)



To get stable net income of 5 billion yen or more on average from FY2023 to FY2025

Company-wide quantitative targets



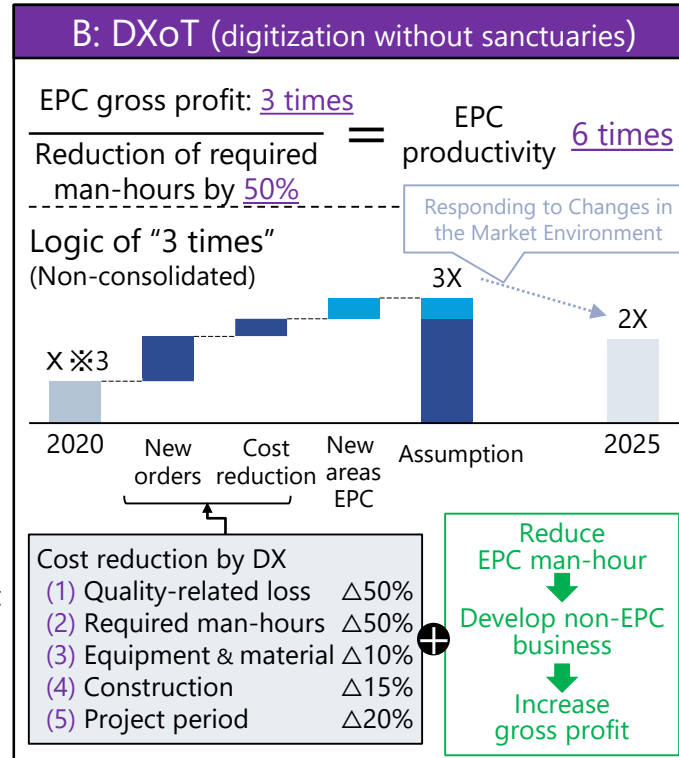
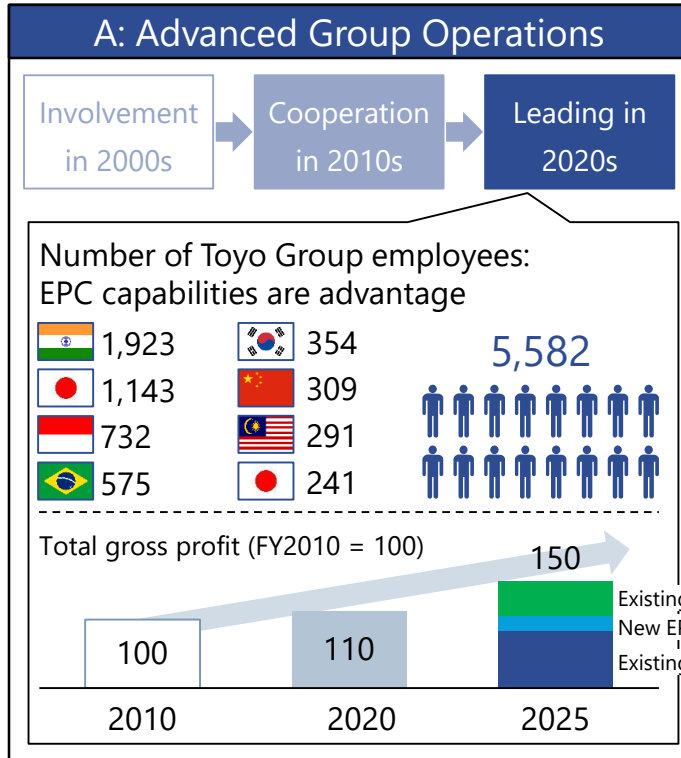
*1: Non-EPC = Businesses except EPC/EP Lump-Sum Projects

*2: TSPI (Brazil) is counted as non-operating income because an equity-method.

How will the EPC business be strengthened?

Further enhance Toyo's strengths in group operations through DXoT

Strategy "Advanced EPC Operation"



Profit margin Improvement

Coexistence

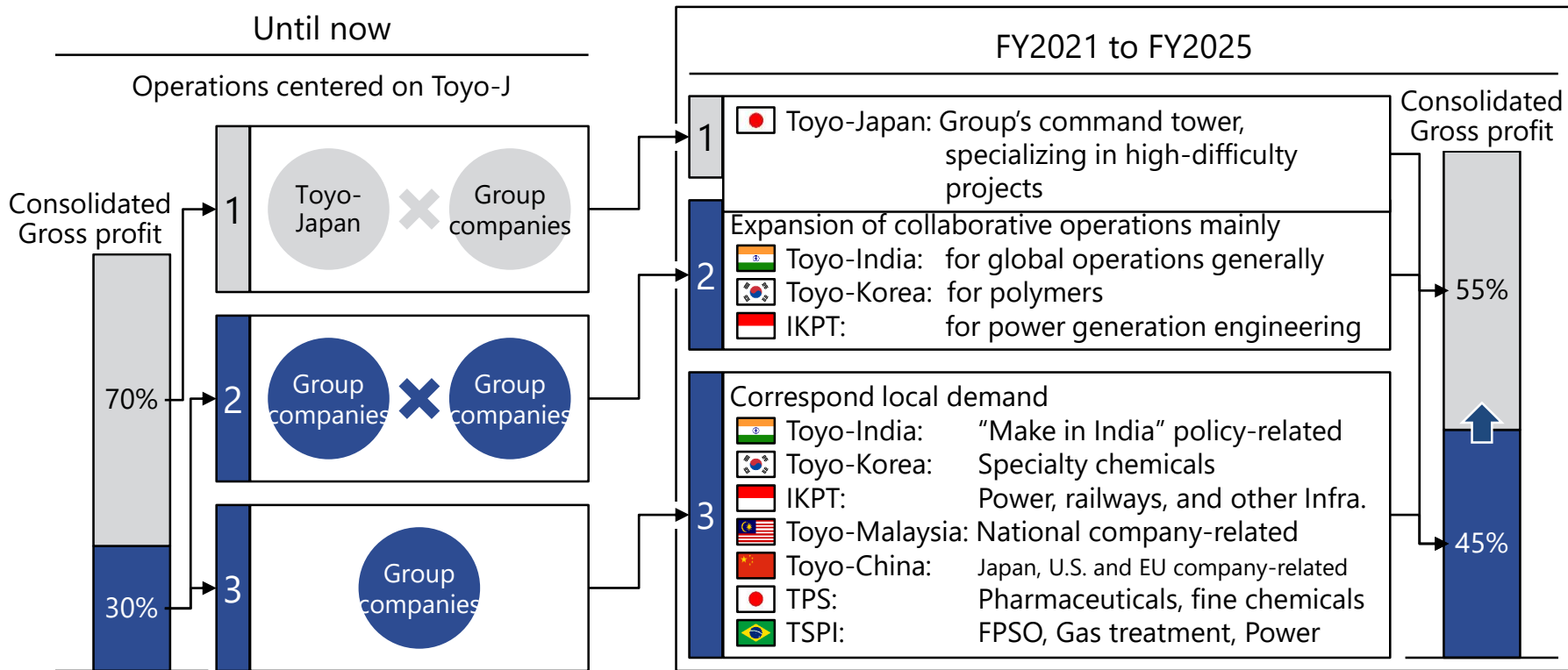
Clients

Minimize CAPEX※1 OPEX※2

*1: CAPEX = Capital Expenditure *2: OPEX = Operational Expenditure *3: Scheduled to be announced at the time of the announcement of financial results in May

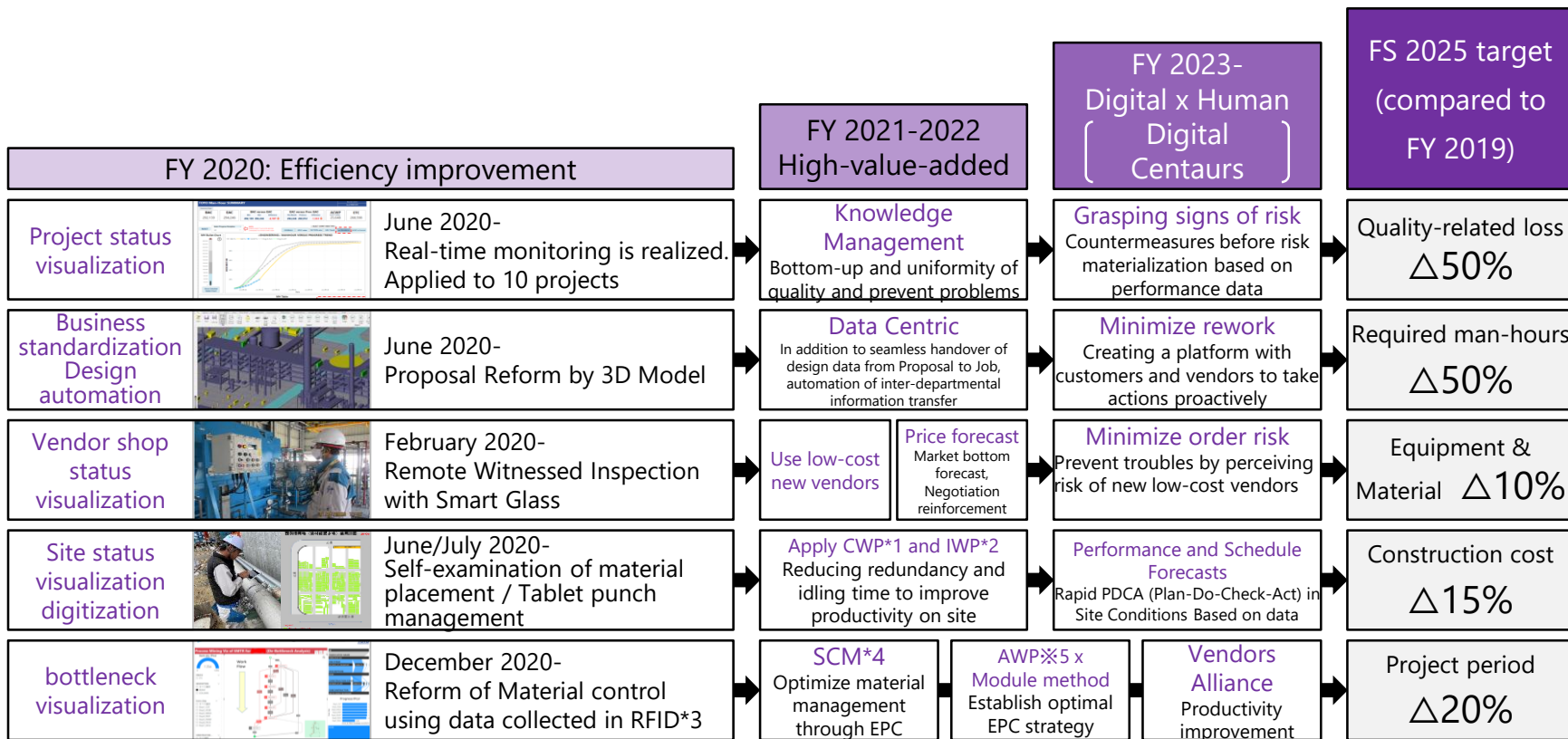
Transformation from Toyo-J-centric to Group companies-centric EPC operations

To further advance group operations (1/2)



DXoT, started at full-scale since FY2019, has steadily produce results.

Outline of the DXoT Results (Example) and the Roadmap towards FY2025 Target



※1 : Construction Work Package
 ※4 : Supply Chain Management

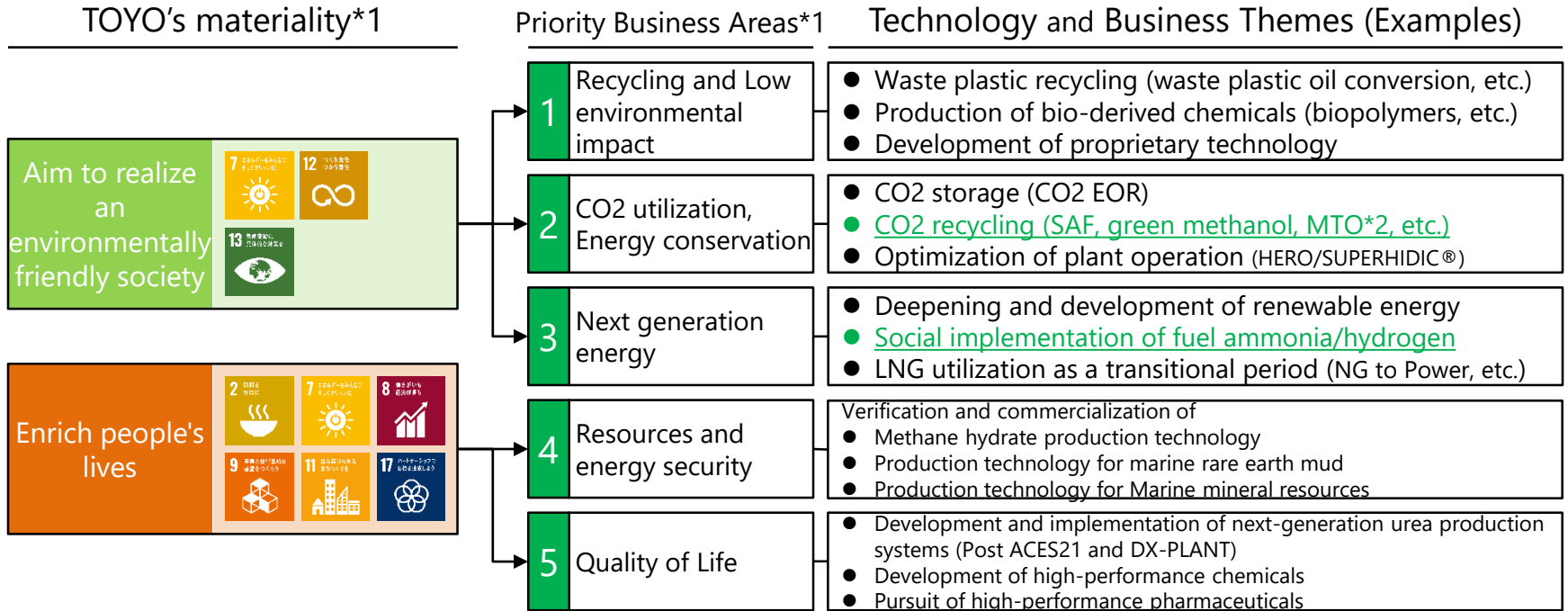
※2 : Installation Work Package
 ※5 : Advanced Work Package

※3 : RFID = Radio Frequency Identification

How will we develop Sustainable Technology and Business
and make them profitable?

Opening up 5 business areas with our advanced technology, knowledge, and experience

Strategy "Sustainable Technology and Business Development"



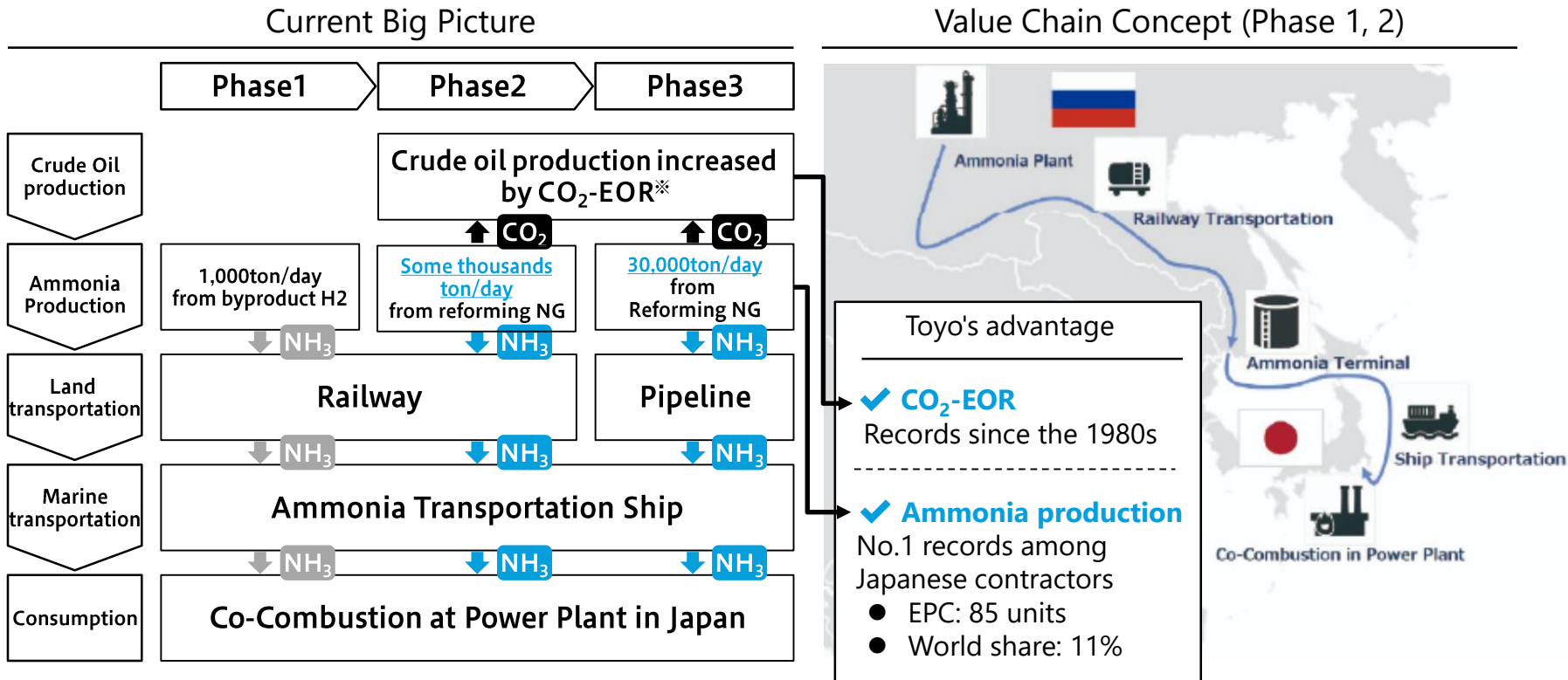
Develop new business models addition to EPC (business investment, services, etc.)

※1: The relationship between materiality and priority business areas can not be clearly defined, and the above is an image.

※2: Methanol to Olefin (technology to synthesize olefinic hydrocarbons such as ethylene, polymers, etc. from methanol)

Ongoing joint feasibility study of fuel Ammonia VC with INK / ITOCHU / JOGMEC.

Plan to develop and commercialize Fuel Ammonia VC (Value Chain) between East Siberia and Japan

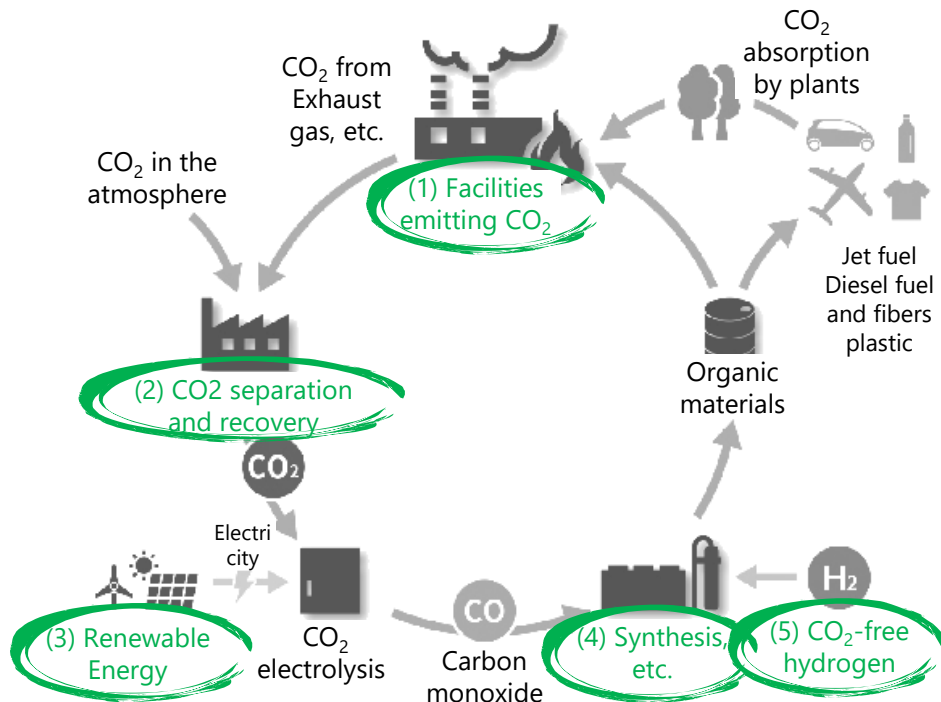


*CO₂-EOR (Enhanced Oil Recovery) is an enhanced oil recovery technology using CO₂ injection.

Business model study for carbon recycling with TOSHIBA / Idemitsu / ANA / JCCS

Overview of Carbon Recycling Business (Image)

Carbon recycling by P2C*1 (Power to Chemical)




TOYO's superiority and Monetization points

(1)	Facilities emitting CO ₂	Construction of industrial facilities which is the starting point of the supply chain
(2)	CO ₂ separation and recovery	Collaboration with technology (ESCAP®) of Nippon Steel Engineering*2 is possible
(3)	Renewable Energy	Top-class EPC project records of Mega-solar / Biomass power plant in Japan
(4)	CO+H ₂ Synthetic Gas	Utilization of TOYO's green methanol, MTO and FT synthesis technology of Velocys*2, etc. is possible.
(5)	CO ₂ -free Hydrogen	Utilization of green ammonia as a hydrogen carrier is possible.

*1: Power to Chemical: Technology to recycle CO₂ into environmentally valuable materials making use of renewable energy / green hydrogen *2: Comprehensive collaboration partner

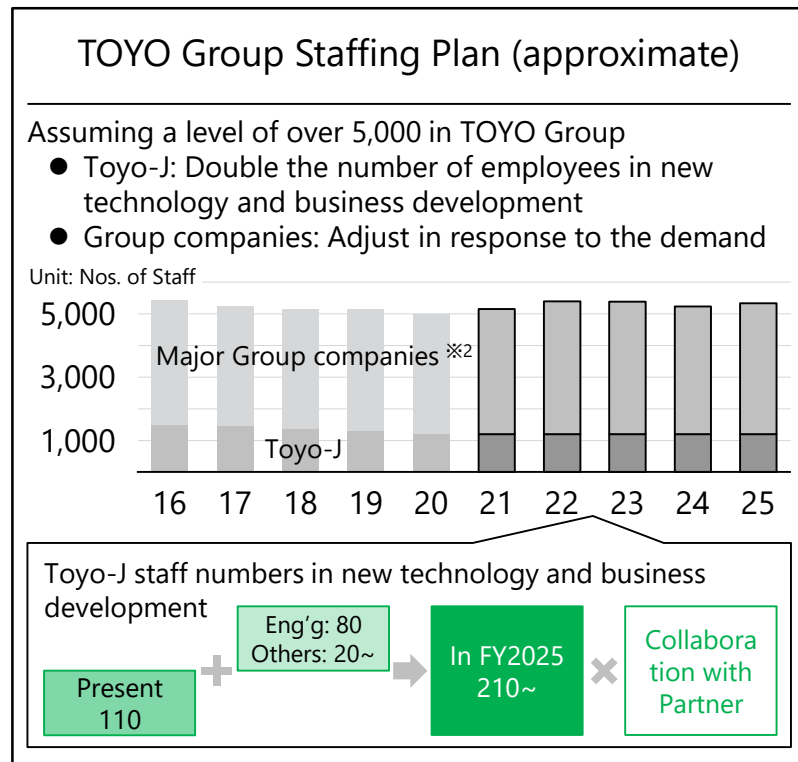
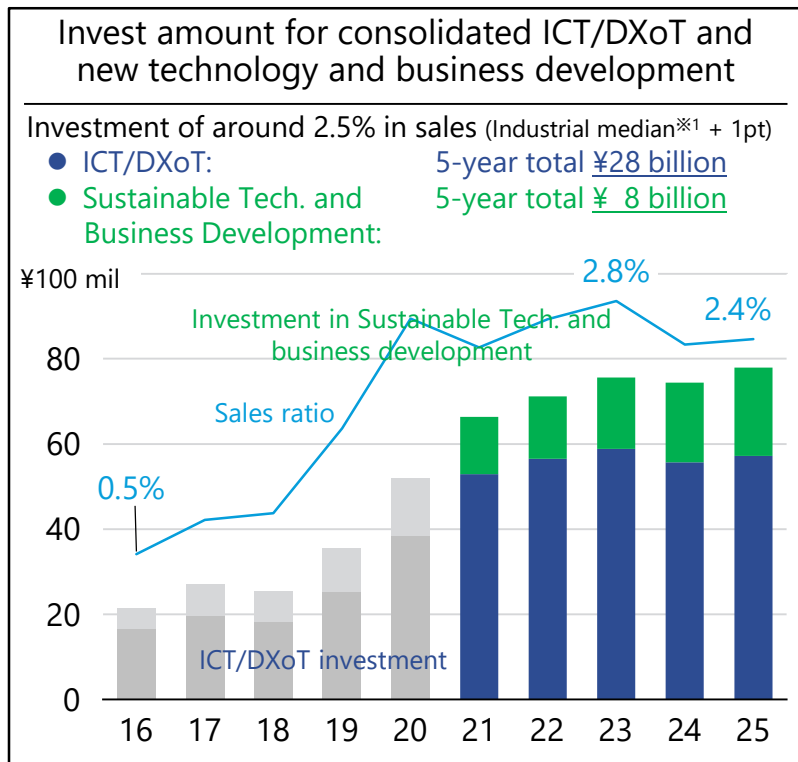
TABLE OF CONTENTS

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Invest fund and human resources actively into the focus area to enhance the effectiveness of the Management Plan

Plan for investment of fund and human resources (approximate)



※1: Assumption with reference to Corporate IT Trend Survey 2020 (JUAS) and the financial statements of major global competitors

※2: Except TSPI (Brazil) which is equity method affiliate

Update of each Fiscal business plan considering the progress / change in the external environment

Periodic review of Medium-term Management Plan

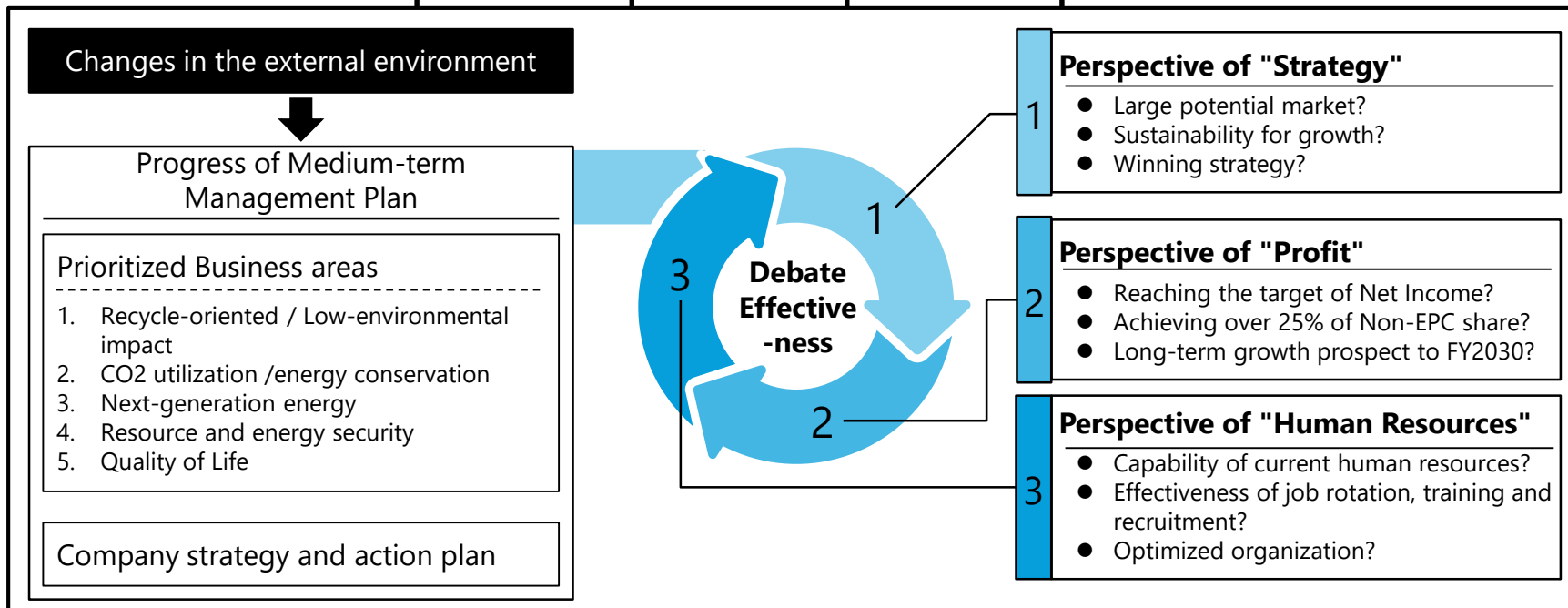
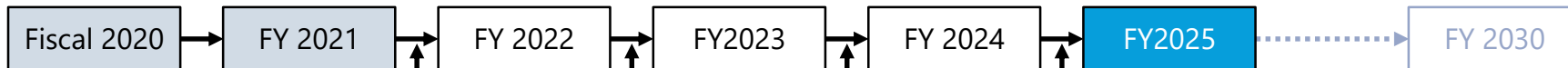


TABLE OF CONTENTS

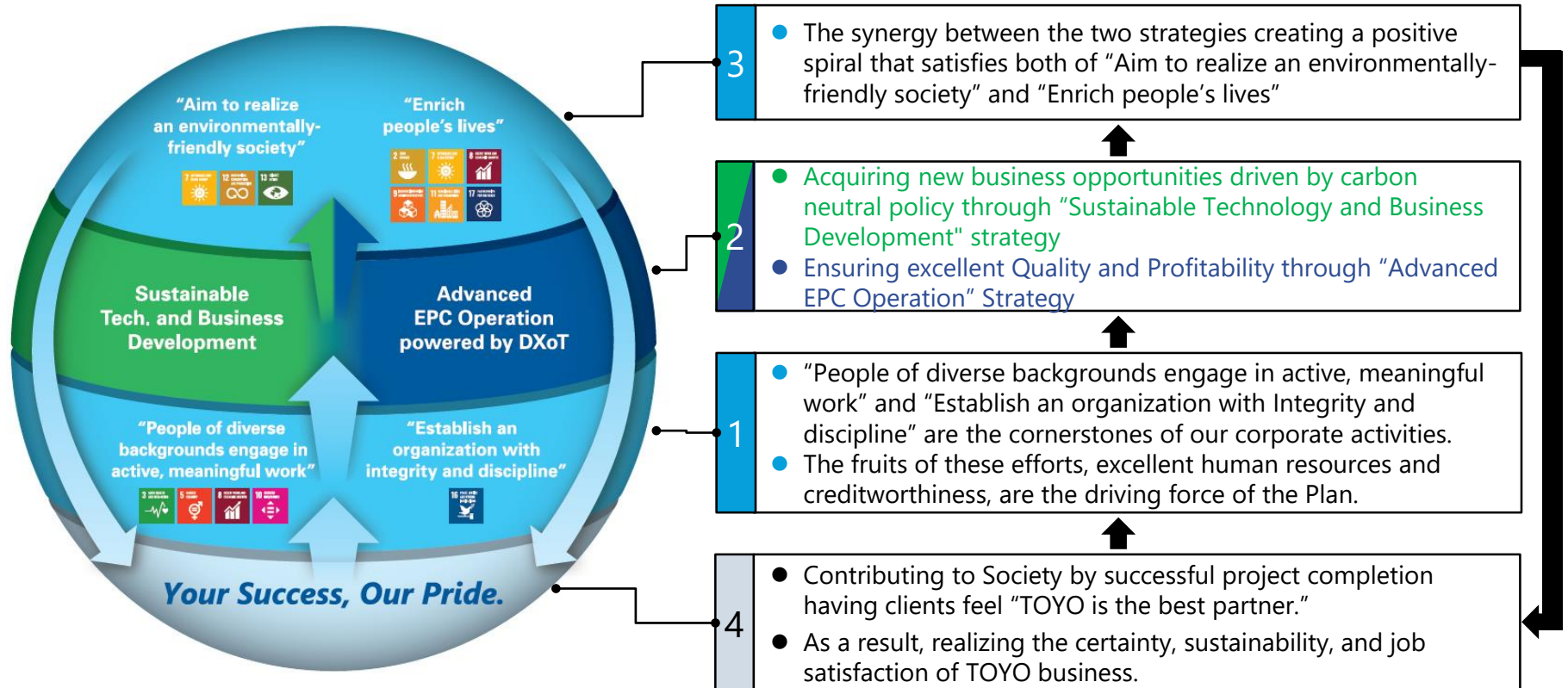
To what kind of world will we aim through this Medium-term Management Plan?

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The Medium-term Management Plan will lead to the solution of our Materiality and the realization of “Your Success, Our Pride”.

Positioning of the Medium-Term Plan in SDGs/ESG





Your Success, Our Pride.